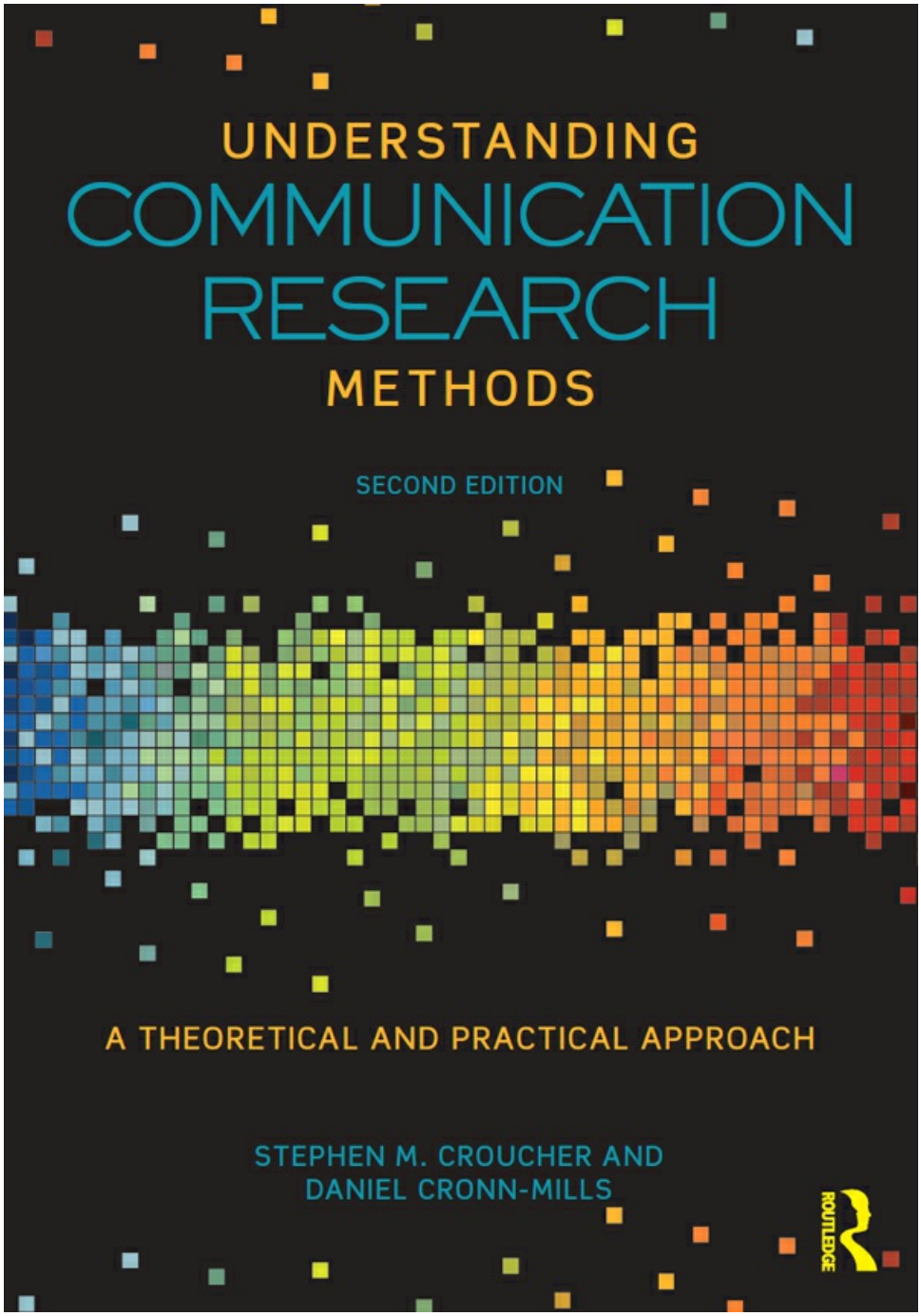
UNDERSTANDING COMMUNICATION RESEARCH METHODS

SECOND EDITION

A THEORETICAL AND PRACTICAL APPROACH

STEPHEN M. CROUCHER AND
DANIEL CRONN-MILLS

ROUTLEDGE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Understanding Communication Research Methods

Using an engaging how-to approach that draws from scholarship, real life, and popular culture, this textbook offers students practical reasons why they should care about research methods and a guide to actually conducting research themselves. Examining quantitative, qualitative, and critical research methods, this new edition helps undergraduate students better grasp the theoretical and practical uses of method by clearly illustrating practical applications. The book features all the main research traditions within communication, including online methods, and provides level-appropriate applications of the methods through theoretical and practical examples and exercises, including new sample student papers that demonstrate research methods in action.

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A Theoretical and Practical Approach

Second Edition

Stephen M. Croucher & Daniel Cronn-Mills

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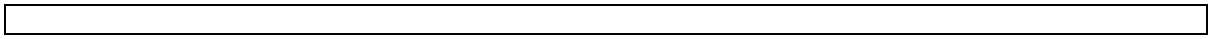

Chapter Outline

Welcome to Communication Research Methods

Sir Edmund Hillary (1919–2008), a New Zealand-born explorer, mountain climber, and philanthropist, is best known for being the first confirmed person to reach the summit of Mt. Everest in 1953. Sir Edmund sought out new areas of exploration and challenges, and also devoted a great deal of his efforts to building schools, hospitals, and other facilities for the Sherpa people of Nepal. He was known for believing that all people are capable of great things. In fact, he is known for saying, "I have discovered that even the mediocre can have adventures and even the fearful can achieve."

Stephen and Dan (the authors of your textbook) agree with this sentiment when thinking about research methods. All too often we see students who do not naturally take to research and, for a variety of reasons, show a great deal of resistance to it. Fear is natural with anything. However, we have seen all kinds of students excel in communication research, including those who did not think they would ever "reach the summit." The key is to look at learning research methods, as corny as it may sound, as a journey. You will confront challenges, face frustrations, celebrate victories, and possibly experience some losses. Yet, in the end, we can all achieve and enjoy the journey. Look around the room next time your class meets and you will see other people just like you. You are not alone in the journey. Enjoy the trip—let your textbook serve as your roadmap and your teacher as your Sherpa guide. As you start your research journey, we should first establish a few good reasons to study communication research methods, second, identify key terms to help you progress quickly as a communication scholar, third, discuss the importance of ethics in research, and finally, provide an overview for the rest of the chapters in the textbook.

Why Take Research Methods?

You may be studying communication research methods because the course is required for your major or degree program. However, one of the things Dan and Stephen do whenever they teach research methods, and which we are sure is one of the things your instructor does as well, is discuss the academic and practical importance of research methods (they often overlap). Let's first talk about the academic benefits. First, research methods will improve your ability to locate, critique, and use academic materials. In many research classes, students have to look

up information on a subject. With the university library and the Internet at your disposal, you can find stacks of information. The key is to know what is "good" information. This kind of class will help.

Second, you will likely have to write one or more papers in the course. Stephen and Dan have their students conduct research papers of various lengths. The students are graded on content, their ability to follow a research design, and on their writing abilities. Effective writing is important. We may have the best ideas, but if we cannot communicate them properly, our ideas lose merit.

Third, as you progress through your research methods course and your program of study, you will be introduced to a variety of concepts. Critical analysis of new concepts is important. Critical analysis involves three things: 1) know what the concept means, 2) evaluate it, and 3) make a judgment about it. In this type of class you will learn some of these skills, particularly when you learn about concepts such as reliability, validity, and claims. Critical thinking is a great skill to have and crosses into every aspect of life.

Learning research methods has practical reasons and benefits. All teachers of research methods have stories about students who have taken the skills into other avenues of their lives. Stephen recently spoke with a former student who is now a Coordinator of Human Resources for a group of 15 hospitals. This student told Stephen:

> Research skills are integral to my responsibilities. I would be lost without them. Every day I need to make our hospitals better places to work. To do this I regularly propose new programs to the Board. When I do this, I have to be perfect in my proposal … the numbers have to add up, and it must be well-written. I constantly ask questions such as: is this plan valid, are the measures reliable? My team and I regularly do reviews of current literature to see the state of our industry, we always are analyzing data, and constantly writing reports. I am grateful I took this course. Whenever I interview applicants, this is one thing I look for … research skills.

A former student of Dan's had plans to become a pharmaceutical sales representative. While a student, she conducted a research project focused on the communication interactions between sales reps and physicians. She conducted extensive communication-focused interviews with reps and doctors and was able to identify the strengths and weaknesses of their communication when the groups met. She was able to take her findings and effectively use the results to advance her professional career.

A second student of Dan's worked at a popular local restaurant during college. The restaurant had a high rate of employee turnover. The restaurant, it seemed, was constantly hiring new staff. The student conducted a study, with permission of the restaurant management, comparing communication expectations between staff and various levels of management. The student identified several levels of mismatched expectations. The findings helped the restaurant significantly improve communication and greatly reduce employee turnover. The student listed the research report on his resume. During his first post-graduation interview, the potential employer was intrigued by the study and they spent more than an hour discussing the research project during the interview. Seems the potential employer was also frustrated with their rate of employee turnover!

Research methods enabled each of these students, and many others, to better communicate (e.g., prepare presentations, reports), understand the professional world, and compete in the world after graduation. As you can see, taking this course has lots of practical benefits. With these benefits in mind, let's move forward on this journey. Before we begin learning about research methods there are a few key terms we should define.

A Few Key Terms to Start the Course

Many of you may have already taken a basic communication course of some kind, while some of you may not have taken such a course. Either way, it is always nice to review a few terms that will be used in this book that would have been introduced in the basic communication course. The first term we want to define is communication. There are so many definitions we could provide of communication. In this text we provide one definition. Communication is a process of sharing meaning with others. There are a few elements of this definition that should be explained. "Process" refers to the three elements of communication: there is a sender, a message, and a receiver. When the receiver provides feedback (a response of some kind), a transaction occurs between the communicators. Think about a conversation: person A (the sender) says "Hi" (the message) person B (the receiver) receives the messages and responds with "Hi." This is the classic sender-receiver model. However, not all communication involves a direct response like the example we just provided. In some cases person B may just nod (a non-verbal response), or in other cases person B may not respond at all. When there is no response, you have one-way communication or unilateral communication.

Another key element of this definition is the idea of sharing meaning. When we "communicate" we are sharing something with others, whether we intend to or not. You may have heard the saying, "you cannot not

communicate." What this means is that we are always communicating, even when we do not mean to communicate. The sending of messages to others, either verbally or non-verbally, is always happening. If you sit in the back of the room and you cross your arms and you look away from the instructor, what are you communicating? Well, to non-verbal researchers, you might be communicating that you are uninterested. Maybe you are not, but our body language tells a lot about what we are thinking/feeling. Ultimately, the thoughts/feelings that we intend or do not intend to share with others is done through this sender/receiver process we call communication. We will not go further into defining communication, but we wanted to provide a preliminary definition of this process, particularly as this textbook focuses on *communication research methods.*

A second key term to define is communications. Communications is a technological system for the transmission of information. Examples of communications systems include telephone, cable, television, fiber optics, the Internet, etc. There is a key difference between communication and communications. *Communication* is a human process of sharing meaning with others; *communications* is a technological system for the transmission of information. Stephen and Dan have both known professors and industry professionals who are very particular about this difference, so make sure you know the difference.

The third term we want to define is theory. A theory is a formal statement of rules on which a subject is based or an explanation of the relationship between variables. In essence, a theory is a statement that is intended to explain facts in the social or scientific world. If we look to the social sciences or humanities, where communication departments are located, we will find various ways to approach theory. Chapters 2–4 each discuss different ways communication researchers define and approach the study and research of "theory."

The fourth term is research. Research is the detailed or in-depth study of a subject (often a theory) to reach a greater understanding of or to obtain new information about the subject. This is what you will be doing in this class, in other classes, and in life, when asked to do research: you will be reaching a greater understanding of or obtaining new information about a subject (like a theory).

The fifth term is method. A method is a systematic technique or procedure used to conduct research. In Chapters 8–20 of this textbook, we describe various methods you can use in communication studies. Each of the methods is slightly different; however, each of the methods is systematic. Each has particular "rules" or guiding principles you need to follow. Hopefully, as you read through the textbook, you will find one or more methods which "speak to you."

The final term is methodology. While method and methodology may sound similar, they are quite different. Methodology is the study of one or more methods. A method is how you conduct your research; for example, using interviews to collect data for your project. Methodology is the study of interviews as a method. In a methodology, you would explain what makes interviewing an appropriate choice for your research, the history of interviewing as a method, your data analysis technique, etc. Essentially, in a methodology you discuss the theory behind the method. So, remember, the method is the "how-to," and the methodology is the theory behind the method.

Research Ethics

Ethics has many different definitions. Aristotle defined ethics as living well and doing good things. Quintillian, a Roman orator, identified a clear relationship between communication and ethics when he defined an ethical man as one who speaks well. English philosopher Thomas Hobbes in his 1651 book *Leviathan* described ethics as the actions one takes in order to maintain a social contract in society. In *Leviathan,* Hobbes praised ideas such as autonomy, preservation of relationships, justice, and fairness. All of these ideas are essential for maintenance of the social contract, which is an ethical aspect of life. The *Cambridge Dictionary of Philosophy* defines ethics as the "principles of right and wrong that govern our choices and pursuits" (Audi, 1999, p. 286). Arnett, Harden Fritz, and Bell (2009) define ethics as "practices that enact or support a good, a central value or set of values associated with human life and conduct" (p. xii). We define ethics as the actions, thoughts, values, principles, and communicative practices one enacts in determining how to interact with and treat others.

If you were to write a paper on ethics, paying particular attention to how Western (European and North American, for example) scholars conceptualize ethics, you would find many of the same attributes as outlined in *Leviathan.* An ethical person, from a Western perspective, is one who typically upholds justice, fairness, the preservation of relationships, and autonomy (Pojman, 2005). Let's take a closer look and compare the two largest religious populations in the world today—Christianity and Islam. The emphasis among Christians for such

qualities in an ethical person stems from the Bible and the teachings of Jesus Christ (Croucher, 2011). The 39 books of the Old Testament provide a litany of rules, or ways people should live their lives to be "good" or "ethical" Christians. While many Christians do not follow everything in the Old Testament, the rules and laws it sets forth paint a picture of what was meant at the time of the Testament's writing of what was needed to be "good" (Croucher, 2011). For many Fundamentalist Christians (strict followers), many aspects of the books hold true as roadmaps to ethical behavior and salvation. The 27 books of the New Testament state that, among many other things, autonomy, the preservation of relationships, justice, forgiveness, and fairness are all necessary attributes for the "good" or "just" person. In the New Testament, readers are taught that these values and actions lead to salvation. These actions and values have served as the bedrock of classical and modern Western thought on ethics (Croucher, 2011).

Traditional ethics in Islam, the second largest religious group in the world, differs a bit from traditional Christian ethics. Traditional Islamic ethics is based on the Koran and the teaching of the Prophet Muhammad. Three principles are of key importance—forgiveness, shame, and patience. The Koran states that Allah (God) is forgiving and merciful. Thus, forgiving an individual who wrongs you is more valued and ethical than to demand justice and/or punishment (Croucher, 2011). These tenets are similar to the Christian philosophy, "To err is human, to forgive divine." Shame is a trait of an ethical person, particularly in conflict situations. Let's say you have been disrespected in some way; it is easy to remain upset instead of being a better person and trying to work out the problem. The ethical solution is to work through the conflict with the person, maybe by using a third party to avoid shame for all parties involved. An escalation of conflict only brings more shame to all involved. Patience is an important part of the Islamic ethic. One should not rush to judgment. One should contemplate a situation, pray for God's guidance, and seek the help of a third party if needed. A decision should be based on a logical, patiently thought-out plan. The different approaches to ethics between these two religious groups reveal various ways to think about "What is ethical?"

Ethics and the Scientific Community

The place of ethics in philosophy, science, and medicine used to be a much more contentious issue than it is today. Philosophers like John Locke and John Stuart Mill argued that ethical concerns had no real place in science because ethical issues belonged to a priori knowledge (or knowledge independent of experience and evidence). For philosophers like Locke and Mill, science should be amoral, detached, and separate from moral obligations to best ascertain truth. These scientists were responding to fears that gripped the scientific community in the days of Copernicus and Galileo. Science was silenced by the Catholic Church because scientific discoveries and knowledge questioned and challenged Catholic doctrine. A fear of scientific knowledge being hindered by religious dogma, or other such "moral" or "ethical" principles, led philosophers like Locke and Mill to call for scientists who were amoral.

Mary Shelley's 1818 novel, *Frankenstein; or the Modern Prometheus* can be interpreted as a challenge to what Locke, Mill, and Max Weber were calling for with amoral science. For Shelley, when science is amoral, we are left with a Frankenstein monster. Mill (1861/1957) disagreed with Shelley concerning the place of morals and ethics in science. His philosophy of utilitarianism proposed a very different view of science and research than Shelley's Frankenstein monster. He asserted that individuals should have full liberty except in harming others. The concept of utilitarian ethics, which stems from utilitarianism, means that one should have full freedom to conduct research, as long as the benefits of the research outweigh the potential harms of the research (Christians, 2000).

While medical and scientific research blossomed in the 18th and 19th centuries, the utilitarian ethic was misconstrued quite a bit in the 20th century. During World War I, medical researchers working for the United States, Germany, France, the United Kingdom, and other European powers experimented on humans with various chemical and biological agents. Researchers and governments argued that such experiments were carried out to better advance science and to protect national security. In World War II, Nazi and Japanese doctors both conducted numerous experiments on prisoners. Such experiments explored pain thresholds, responses to poisons and temperatures, and involved injecting individuals with viruses, and many other experiments. Numerous doctors were tried for crimes against humanity at Nuremberg for unethical and inhumane treatment of humans during World War II. The doctors argued they were following orders or that the work was for the benefit of mankind.

Numerous instances exist in the history of the United States during the 20th century in which researchers and

doctors violated numerous ethical principles in the "name of science." For example, from the 1930s to the 1970s, black men in Tuskegee, Alabama who had syphilis were told they did not have the disease and were refused counseling for the disease. Many of these individuals were airmen in the U.S. military. Many other men, and some women, were intentionally injected with the disease. The purpose of the experiments was to study the progression of syphilis. The experiments lasted until the 1970s (Kampmeier, 1972). Countless people died and generations of lives were affected by U.S. government sponsored experiments. In 1963, Drs. Southam and Mandel at the Jewish Chronic Disease Hospital in New York injected 22 debilitated patients with live cancer cells without their consent (Mulford, 1967). The physicians were interested in exploring the effects of cancer on the human body.

In the social sciences, researchers have also been questioned about their ethics. The 1961 Milgram experiments at Yale University explored individuals' obedience to authority figures. While the experiment offered valuable insights into people's behaviors under pressure from authority, the techniques used by Milgram and his colleagues have been deemed less than ethical (Baynard & Flanagan, 2005). The psychological stress suffered by many of the participants is something you do not want when conducting research. The 1971 Stanford Prison Experiment is another classic example of a psychological experiment run amok, ethically speaking. The experiment conducted by Phillip Zimbardo concluded that, given the right circumstances, just about anyone's personality could shift from follower to leader, and vice versa (Stolley, 2005). These results are of particular interest in contexts such as the military and prisons. The study, which examined conflict between superiors and subordinates, was fraught with problems, such as physical abuse between participants and poor debriefing of participants (we will talk about debriefing later in the chapter).

In response to many of these incidents (Tuskegee in particular), the National Commission for the Protection of Human Subjects of Biomedical and Behavioral Research, a federally funded Commission, was created in 1974. This Commission met and wrote the Belmont Report, in which they outlined ethical guidelines and principles for research with human subjects. Three key principles were identified in the report regarding human subjects: (1) respect for individuals, (2) beneficence, and (3) justice. Along with these three guiding principles, the Belmont Report and the Federal government required all organizations receiving federal funds to have an Institutional Review Board (IRB). IRBs monitor, direct, and are responsible for enacting codes of conduct. Every American university and college has an IRB. IRBs consist of faculty members from diverse sexual, ethnic, racial, and disciplinary backgrounds. An IRB needs faculty with various methodological and theoretical specializations. An IRB needs to have at least one member on the Board who is not affiliated with the university or college to help make sure rules are followed.

Now, any research involving human subjects should be sent to the college or university IRB for approval before any data collection is conducted. All research involving human subjects must meet at least three minimum requirements before an IRB will permit it to take place (the same three principles as outlined by the Belmont Report). First, the researchers must *respect* the rights of the participants who take part in the research. Second, the benefits of the research should outweigh the potential harms of the research for the participants (*beneficence*). Third, all participants should be treated fairly (*justice*).

Based partially on these three principles, as well as on the procedures used in a research project, IRBs make determinations about levels of risk. An exempt research project has minimal risk—typically similar to the risk a person faces in a normal day. Examples of these kinds of projects include research conducted on existing data, research in educational environments, and surveys and interviews without highly probing questions. These projects receive expedited review by an IRB. An expedited application is typically reviewed by the head or chair of IRB and not the full board. To qualify for exempt research with humans, you must also make sure you are working with individuals who are able to personally consent to the research.

If a project involves higher levels of risk for participants, or if individual participants are not able to consent for themselves (children, individuals with mental disabilities, prisoners, and other "protected" groups), a project will be non-exempt. Non-exempt projects are sent to the full board for review. Such projects need closer scrutiny to make sure the project fulfills the three principles established in the Belmont Report. We include at the end of this chapter an approved IRB Application written by Stephen Croucher to show you how the IRB application process works.

Now that you know a bit more about the relationship between ethics and the scientific community, and how an IRB monitors ethics, the following section discusses ethical practices we should all follow when working with human subjects.

Ethics and Human Subjects

When conducting research among human subjects, various principles must be followed. Along with the principles outlined in the Belmont Report, one should adhere to three additional procedural and ethical guidelines. The three key elements are informed consent, level of participant privacy, and debriefing.

Informed Consent

When conducting research we must get informed consent from participants. Informed consent requires that you to tell your participants, in a written document, what they will be doing in the study, explain the risks and benefits of their participation, explain that individuals have a right to stop participation at any time, provide the researchers' contact information, and obtain participant permission to take part in the study. It is of utmost importance that the consent document be written in language the participants can understand. Try to avoid jargon and other language that may confuse participants. Informed consent documents should be signed by participants to show that they have given their permission. In such cases, the researcher should keep names confidential (private). In some cases, when a researcher is not looking to keep the names of participants (anonymity), acceptance of the form may count as an agreement to participate. We will talk more about the difference between confidentiality and anonymity shortly.

Sample Informed Consent Document

INFORMED CONSENT TO PARTICIPATE IN A RESEARCH STUDY

You are being asked to volunteer for a research study. Please read this form and ask any questions that you may have before agreeing to take part in this study.

*Project Title: "*A comparative analysis between Muslim and non-Muslim conflict styles."
Principal Investigator Stephen M Croucher
Co-Investigators: _____
Contact Information: INSERT ADDRESS AND PHONE NUMBER HERE

Purpose of the Research Study

The purpose of this study is to measure the conflict styles of individuals who reside in France, the United Kingdom, Germany, Spain, Costa Rica, and the United States.

Procedures

If you agree to be in this study, you will be asked to do the following things: you will be asked to complete an 11-page survey that examines how you rationalize and manage conflict. This survey should take you approximately 35–50 minutes.

Risks and Benefits of Being in the Study

There are no foreseeable risks to participating in this study.
The benefits to participation are: that you will be able to voice your opinion(s) anonymously on a controversial issue, which can help relieve stress. Also, this study is important because it examines how individuals from different cultures rationalize and manage conflict.

Anonymity

Because you have not signed a sign-up sheet, or any other form that includes your name, your participation in this study is completely anonymous. Furthermore, because your survey will be combined with other surveys (approximately 3000–4000), your responses will be virtually impossible to separate from the other responses.

Voluntary Nature of the Study

Participation in this study is voluntary. Your decision whether or not to participate will not result in penalty or loss of benefits to which you are otherwise entitled. If you decide to participate, you are free to not answer any question or withdraw at any time.

Contacts and Questions

The researcher conducting this study can be contacted at (INSERT E-MAIL HERE). You are encouraged to contact the researcher if you have any questions.

You may also contact the Chair, Human Subjects Review Board, Bowling Green State University, (419) 372–7716 (hsrb@bgsu.edu), if any problems or concerns arise during the course of the study.

You will be given a copy of this information to keep for your records. If you are not given a copy of this consent form, please request one.

The box opposite contains a sample informed consent document, approved by the IRB at Bowling Green State University, which Stephen used in a study on conflict styles among Muslim immigrants and non-Muslims in France.

An informed consent form has many elements. Each college or university's IRB may have slightly different requirements. As a student, if you conduct research as part of a course assignment, you may not be required to produce an informed consent form. However, it is better to be safe than sorry and always ask your teacher if you need informed consent and if you need IRB approval before conducting your research. An informed consent form has eight elements.

Required Elements of Informed Consent

1. Title of the project. You need to have some title for your project. A title is a requirement for an IRB application.
2. Names of the investigators. List your name and the names of anyone else in your research group. If you are a student researcher you will also need to list your teacher as a sponsor of your research.
3. Contact information. First, you must provide participants with your contact information in case they have questions about the project during and/or after the project. You should give them your physical address, e-mail address, and phone number(s). If you are a student researcher, you will need to provide your teacher's contact information. Second, IRBs will require that you provide participants with the contact information of the IRB just in case participants have questions for the IRB to answer.
4. Purpose of the study. You need to provide a brief description of the study. The description needs to be just enough to inform the participants of what you are studying.
5. Procedures. This is where you inform the participants of exactly what they need to do in the study. You need to describe in basic language what you expect from them. You must let the participants know how much of their time you will use and outline other obligations you have for them.
6. Risks and benefits. First, you must tell the participants about any risks or harms that may arise from participating in the study. Second, you need to let them know of any benefits to them, society, or the academic world from their participation.
7. Anonymity. You need to let the participants know if you are keeping track of their names. Some studies keep track of participants' names. If so, tell them what steps you will take to protect their identities.
8. Voluntary nature of the study. You need to make sure all participants know their participation is voluntary. Voluntary participation means they can enter and end their involvement in the study at any time.

If you focus on these key issues when writing up an informed consent form, you are being ethical in assuring that you have informed your potential participants of the information essential for their involvement. Participant privacy is the next issue you must consider when collecting research.

Participant Privacy

An important part of informed consent is letting participants know how you will handle privacy issues. When you

conduct research, people may answer questions about themselves or issues that provide insight into their private lives. In many cases, participants may want their names shared with others. However, in most cases researchers do not name the participants in their research. In qualitative research (e.g., interviews, ethnography), researchers often use pseudonyms for participants. In quantitative studies (e.g., surveys), researchers generally report statistical results; participant names are never reported. It is important for participants to have the ability to speak freely and to answer questions without fear of being "outed" to the public. This is why participant privacy is so important.

You can take two approaches with participant privacy in a study. One approach is confidentiality. Confidentiality is where the researcher knows the names and personal information of the participants but does not share that information with anyone else. Having this information can be very helpful if you ever need to contact the participants again (e.g., follow-up interviews). Anonymity is when not even the researcher knows the participants' names or personal information. In Stephen's study on conflict styles among Muslims and non-Muslims in France, anonymity was used. Stephen did not know the participants' personal information because the participants filled out anonymous surveys and Stephen had no intention of contacting the participants again. As long as you are up-front with your participants as to which kind of privacy you are using, you are being ethical concerning privacy. In some rare cases you may want to use participants' names, or some participants may ask that their real names be used.

Debriefing

In Milgram's studies at Yale University, he explored the power of control on individuals' actions. He showed that with the right amount of influence exerted on an individual, most people will do just about anything to another person. In his experiments, he had two people in separate rooms who could not see one another. One person read a series of numbers and the other person had to read the series of numbers back. If they got the series wrong, they were given an electric shock. The voltage increased each time they got an answer wrong. Over time, the person receiving the shocks would scream in pain, complain of their heart, and ask to end the experiment. The person giving the shocks would ask a helper in the room if they could stop, and they were told they could not. The helper giving the order was a confederate (a person who is in on the project and assists with the data collection). A confederate secretly takes part in the project and guides it along the way. A confederate would guide the participants into continuing the electric shocks. Some participants stopped, but many continued to shock the other person until the screams ended. The person could have been dead from a heart attack. At the end of the experiment the confederate reunited the two individuals. The one giving shocks finally knew that they did not kill the other person. They were told that the other person was in on it all along.

Our recounting of the Milgram experiment is necessary to provide an example of a debriefing exercise. Debriefing is when a researcher explains all of the aspects and purpose(s) of the research process after the research is completed. During debriefing, the researcher provides participants with a chance to ask questions and to remove their data from the study if they wish. The purposes of the study should be well explained in the informed consent form. However, deceiving participants may be necessary in some cases. If you are trying to study how people respond to persuasive messages in the media, you do not want to predispose them to your persuasive tactics. You might tell participants in the informed consent form that you are studying individuals' preferences for media messages. The IRB will weigh whether the benefits of your research warrant deceiving your participants. Many IRBs will, in fact, ask you for a copy of your debriefing script, especially if your research includes any kind of deception.

Ethical Practices in School and Scholarship

As a college or university student, you have ethical responsibilities in your everyday academic studies and in any research you conduct. If you are conducting research for a methods class, you must consider the ethical issues we have outlined. Now you may be asking yourself, "I don't plan on presenting or publishing this paper. It's just a class project, so why do I need to go through the entire IRB process?" However, you have an ethical responsibility to get approval for your project. Formal approval ensures your project follows appropriate ethical research guidelines. Your instructor will know if you are required to get official approval for a research project. Many instructors require their students to complete an IRB application even for in-class research projects.

Next, we must all work to avoid plagiarism. Plagiarism is the use of someone else's words or ideas without giving credit to that person or institution. Blatant examples of plagiarism include borrowing, buying, or stealing a

paper and calling it your own. However, most examples of plagiarism are not this blatant. In the years Dan and Stephen have been teaching, the two have encountered borrowing, buying, or stealing someone else's paper less than five times (even five is too many). The most common form of plagiarism is when people (students, faculty, and researchers alike) paraphrase a source too closely and do not give adequate credit to the source. We may find a wonderful source that helps us make a great point in a paper, but sometimes we are either apprehensive to cite quotations from it too much, or we do not know how to synthesize our own ideas well enough. So what happens is that people "paraphrase" almost word-for-word. Changing a word or two in a sentence does not make it your own.

Stephen often suggests that, if the student thinks their paraphrasing sounds too similar to the original statement from the author(s), then the section needs reworking into the student's own words. Stephen reminds them that even a paraphrase needs to be cited. Authors deserve credit for their ideas. Most students do not intend to plagiarize when trying to paraphrase. This is why many faculty members will ask students about their intent in these situations. If you are aware of the need to avoid this situation and make things your own you can avoid plagiarism.

Outline of the Book

Whenever we approach a textbook, we think it's a good idea to know what we are getting into. We like to know the format of the text and what we will be reading. This textbook is divided into three main sections: 1) Introduction to Research and Research Paradigms, 2) Research Design, and 3) Research Methods. At the end of each chapter you will find a list of activities, discussion questions, and key terms to help clarify each chapter.

The first section is an Introduction to Research and Research Paradigms and has four chapters. The chapters define the various approaches to research (paradigms) and discuss ethical practices in research.

The third section on Research Methods has 13 chapters. Each chapter introduces you to different methods you can use to explore, test, or analyze phenomena, theory, or research questions. The end of most chapters includes an example student paper utilizing the method. These are real student papers—unedited, so all typographical errors were in the original—written in a class like the one your are taking now. Maybe one of your papers will be included in a future edition of the textbook!

Chapter 1 – Introduction and Ethics (you are reading it right now) discusses reasons for taking research methods, identifies key terms, reviews the importance of ethics and following ethical practices in research, and outlines the other chapters in the textbook.

Chapter 2 – The Social Scientific Paradigm presents the first of the three research paradigms. The chapter defines the social scientific paradigm, discusses the development of the paradigm, and outlines key questions underlying this paradigm.

Chapter 3 – The Interpretive Paradigm presents the second of the three research paradigms. The chapter defines the interpretive paradigm, discusses the development of the paradigm, describes the three main approaches to theory and method within this paradigm, and outlines key questions supporting this paradigm.

Chapter 4 – The Critical Paradigm presents the final of the three research paradigms. The chapter defines the critical/cultural paradigm, discusses the development of the paradigm, describes approaches to theory and method within this paradigm, and outlines key questions for the paradigm.

The second section focuses on Research Design and has three chapters. The chapters address issues related to data, how we evaluate research, and what constitutes hypotheses and research questions.

Chapter 5 – Data explores research data. The chapter describes the various sources of data, defines data sampling, explains the various data collection settings, and discusses the different levels of measurement (types of variables) available.

Chapter 6 – Evaluating Research discusses the various approaches to evaluating research. The chapter describes warrants for social scientific research, interpretive research, and critical/cultural research.

Chapter 7 – Hypotheses and Research Questions describes hypotheses and research questions. The chapter describes the reasoning behind hypotheses and research questions, explains when to use what kind of hypothesis and/or research question, discusses how to test hypotheses and/or research questions, defines error, and provides a case study that applies the principles learned in the chapter.

The third section on Research Methods has 13 chapters. Each chapter introduces you to different methods you can use to explore, test, or analyze phenomena, theory, or research questions. The end of most chapters includes

an example student paper utilizing the method. These are real student papers – unedited, so all typographical errors were in the original – written in a class like the one you are taking now. Maybe one of your papers will be included in a future edition of the textbook!

Chapter 8 – Ethnography guides you in learning how to conduct ethnographic research. The chapter defines ethnography and the different approaches to ethnography, explains how to make claims with each approach, how to collect and analyze data, what makes good ethnographic research, and provides a student paper example of ethnographic research.

Chapter 9 – Interviewing describes how to conduct studies using interviews. The chapter defines interviewing and the different approaches to interviewing, describes data collection and grounded theory as a form of data analysis, and provides a student paper example of interviewing.

Chapter 10 – Focus Groups develops skills to conduct focus groups. The chapter defines focus groups and explains why they are used, describes how to prepare and conduct a focus group, outlines the advantages and disadvantages of focus groups, and provides a student paper example of focus group research.

Chapter 11 – Social Media and Research Methods explores the contemporary connections between the online world (e.g., Instagram, Facebook, Twitter, texting) and research in communication. The chapter defines social media (it may be broader than you realize), the key features of social media, and special considerations using social media as a site and a tool for research. Finally, it discusses the unique ethical questions involved in conducting research involving social media.

Chapter 12 – Qualitative Content Analysis explores the difference between qualitative and quantitative content analyses, different approaches to a qualitative content analysis, and the process for gathering and analyzing your data. The chapter concludes with a sample student paper.

Chapter 13 – Quantitative Content Analysis is a follow-up to Chapter 12, in that this Chapter further defines content analysis, and specifically focuses on quantitative content analysis. The chapter concludes with a sample student paper.

Chapter 14 – Discourse Analysis offers an approach for researching everyday communication. The chapter explores options for collecting and processing data to produce reliable research, and identifies principles and practical advice for conducting a discourse analysis.

Chapter 15 – Surveys helps you better understand the function of surveys. The chapter describes surveys, why they are used, survey creation, survey delivery, and data analysis. Next, the chapter explains the advantages and disadvantages of surveys, and provides a student paper example of survey research.

Chapter 16 – Descriptive Statistics breaks down the purpose and the uses of statistics to organize and describe data. The chapter defines visual data, measures of central tendency, variability, distribution, and provides a student paper example that uses descriptive statistics.

Chapter 17 – Inferential Statistics illustrates how statistics can be used to test for differences, relationships, and prediction. The chapter explains the foundations of inferential statistics, tests of mean differences, tests of relationships and prediction, and provides a student paper example that uses inferential statistics.

Chapter 18 – Mixed Methods investigates the complex world of mixed-methods research. The chapter sets the parameters for a mixed method study, important issues to consider when planning a study, and the steps involved in conducting your research. The chapter concludes with a student paper using a mixed-methods approach.

Chapter 19 – Rhetorical Criticism guides you in learning how to conduct rhetorical criticism. The chapter defines rhetoric, rhetorical criticism, and the various approaches to rhetorical criticism, explains how to conduct a rhetorical criticism, and provides a student paper example of a rhetorical criticism.

Chapter 20 – Critical/Cultural Methods guides you in learning how to conduct a critical/cultural study. The chapter explains the critical/cultural method, discusses various approaches, explains how to conduct a critical/cultural study, and provides a student paper example of a critical/cultural critique.

Summary

In this chapter, we explored the terrain of this course. Every class should be an adventure. Communication research methods are a process where you will exchange ideas on how to study a variety of different subjects. You will leave this class more prepared for your academic and non-academic lives. In the next chapter we examine research ethics. As budding communication scholars, it is essential to start off on the right foot and understand the ethical principles of research.

Key Steps & Questions to Consider

1. Communication is a process of sharing meaning with others.
2. Communications is a technological system for the transmission of information.
3. Communication and communications are different. *Communication* is a human process of sharing meaning with others; *communications* is a technological system for the transmission of information.
4. A theory is a formal statement of rules on which a subject is based or an explanation of the relationship between variables.
5. Research is the detailed or in-depth study of a subject (often a theory) to reach a greater understanding or to obtain new information about the subject.
6. Method is the systematic technique or procedure used to conduct research.
7. Methodology is the study of a method, or of multiple methods.
8. The method is the how-to, and the methodology is the theory behind the method.
9. Ethics are the actions, thoughts, values, principles, and communicative practices one enacts in determining how to interact with and treat others.
10. Utilitarian ethics comes from utilitarianism, which means one should have full freedom to conduct research as long as the benefits of the research outweigh the potential harms of that research.
11. Institutional Review Boards were developed after the Belmont Report was published.
12. Informed consent involves telling participants, in a written document, what they will be doing in the study, explaining the risks and benefits of their participation, explaining that participants have a right to stop participation at any time, providing contact information for the researchers, getting participant permission to participate in the study, and other things.
13. Two important elements of participant privacy are confidentiality and anonymity.
14. Debriefing is when a researcher explains all of the aspects and purpose(s) of the research process after the research is completed.

Discussion Questions

1. Why should we study communication?
2. Why are ethics important?

Key Terms

Anonymity
Communication
Communications
Confidentiality
Debriefing
Ethics
Exempt
Expedited
Informed Consent
Institutional Review Boards
Method
Methodology
Non-Exempt
Plagiarism
Research
Theory
Utilitarian Ethics

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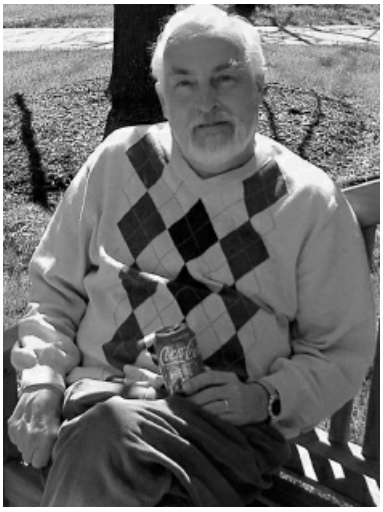
2 The Social Scientific Paradigm

Chapter Outline



What Will I Learn About the Social Scientific Paradigm?

This is a photo of Professor Michael Pfau, a former Department Chair at the University of Oklahoma. He passed away in 2009, but not before he taught and inspired generations of scholars, including Stephen. While he respected all paradigms of thought, he was at his heart a social scientist. On Stephen's first day of Introduction to Graduate Studies at the University of Oklahoma (many years ago now), Michael said, "you should be any kind of researcher you want, as long as you are good at it." When he said he was a social scientist, a student asked what that was. He said something to the effect of how his approach to research closely resembles the natural sciences, and that he looks for causal laws, develops testable theories, gathers empirical data, and is value-free in his testing of theory. These four issues came up a lot in his discussions of social scientific theory and method. Michael made a prolific career out of being a social scientist; his work on inoculation has spawned countless studies (for reviews see Compton, 2013; Pfau & Burgoon, 1988; Pfau, Kenski, Nitz, & Sorenson, 1990; Szabo & Pfau, 2002). Stephen became a social scientist under Michael's mentorship.

The social scientific paradigm is one of the three main paradigms, or approaches, to method discussed in this book; the other two are the interpretive (Chapter 3) and the critical/cultural paradigms (Chapter 4). Social scientists prefer doing research that looks for causal laws, describes and predicts things, and gathers empirical data; they try to be as value-free as possible in research. This brings up a lot of broad questions. For example: 1) what is theory, 2) what are causal laws, 3) what is empirical data, and 4) what does it mean to be value-free in research? In Chapter 2 we explore these questions and other aspects of the social scientific paradigm or approach to research.

Social Scientific Paradigm Defined

The social scientific paradigm is one of the three main paradigms of research, along with the interpretive (Chapter 3) and the critical/cultural (Chapter 4) paradigms. Social scientific research borrows heavily from the scientific method. Social science is an organized method of research combining empirical observations of behavior with inductive and deductive logic to confirm and test theories that are then used to describe and/or predict human activity. For social scientists, describing and/or predicting human behavior, particularly through the testing of theory, is of the utmost importance. The testing of theory is where the scientific method comes into play.

The scientific method is a four-step systematic process in which a researcher conducts "research" which, as we discussed in the introduction, can be done in various ways. The ancient Egyptians, Greeks, and Romans all created systems for conducting research that closely resemble today's scientific method. These systems were later modified by Muslim philosophers, Sir Francis Bacon, René Descartes, David Hume, Charles Pierce, and many others. The scientific method has four basic principles that form the backbone of social scientific research: theory should be proposed or present, predictions (hypotheses) should be made, observations should be made, and empirical generalizations should be generated.

The first step in the scientific method is proposing a theory. A theory is any conceptual representation or explanation of a phenomenon. Theories are attempts by researchers and scholars to represent processes. We all know Isaac Newton's (1642–1726) theory of gravity: *very simply* put, "what goes up must come down." Countless scientists have made careers out of refining and expanding this theory into new horizons. Thanks to Newton's initial explanation of how gravity works, we have had breakthroughs in mathematics, architecture, and science.

We identify eight important things to know about theories (Craig & Tracy, 1995; Littlejohn, 1999).

Important Things to Know About Theories

1. Theories organize and summarize knowledge. What we know about the world is organized into a collection of systematic theories created by researchers.
2. Theories focus attention on specific variables and the relationships between those variables. When you are thinking about a project and wondering what variables to look at, look to the body of theory for guidance on variable selection.
3. Theories clarify what is observed and studied and how to study it in our research. In essence, theories provide roadmaps for explaining and interpreting human behavior.
4. Theories allow for the prediction of human behavior. As theories are systematic explanations of phenomena, we can make predictions based on certain kinds of data (we talk more about this later in the chapter).
5. A "good" theory should generate research; this is the heuristic function of a theory.
6. No theory can reveal the whole truth about a phenomenon. Some descriptive and/or explanatory aspects will always be left out, which leaves the theory abstract and partial.
7. People create theories. Theories represent how people see the world and not how some divine entity sees the world. It is important to recognize that theories are not perfect and we continue to test theories with new research. The issue of continued testing is at the heart of being a social scientist and represents what Popper (1968) argued is a key aspect of a theory—a theory must be falsifiable (or testable through empirical research).
8. Some theories have a generative function, which means that the theory's purpose is to challenge existing cultural life and generate new ways of living.

The second step in the scientific method is developing predictions about the relationships between phenomena. Predictions usually come in the form of hypotheses. A hypothesis is a prediction about what a researcher expects to find in a study. Hypotheses are educated guesses (predictions) about relationships between variables. When conducting research, the purpose of hypotheses is to help researchers make predictions based on theories. We will come back to hypotheses in much more detail in Chapters 5–7.

The third step in the scientific method is testing hypotheses, or the observations step. A researcher can test hypotheses in multiple ways; one purpose of this book is to provide new researchers with numerous ways to observe (test) their hypotheses. One important criterion for a social scientist when it comes to observation is that the method must be empirical, objective, and controlled. Empiricism is the notion that a researcher can only research what they can observe. Something you can't observe is generally outside of the realm of science. For example, most empirical scholars will not conduct research on the existence of God, or gods. Why, you ask? The

existence of God is a matter of faith, and something one cannot empirically observe. Objectivity refers to the need for a researcher to be sure that his/her emotions and personal feelings do not interfere with their research and/or predictions. For a social scientist, objectivity is an important thing many social scientists strive for in research. For an interpretive or critical/cultural scholar, objectivity is not as much of a concern. All researchers should recognize that the choice of method they make is a subjective choice. An interpretive/critical/cultural scholar relies more on subjectivity. For example, Dan is a qualitative and rhetorical scholar while Stephen is a quantitative scholar (statistics). The fact that they use these methods represents a choice (subjectivity) on their part. Stephen discusses in his work his role as an objective observer of human behavior. Stephen takes a scientific approach to his analysis, while Dan takes a more interpretive or critical approach to his research.

Control is where the researcher makes sure (or at least tries to prevent) that personal biases and other influencing variables do not interfere with a research study. As much as social scientists attempt to make research value-free, we are all human, and so our personalities and pre-determined preferences will influence our research methods (and our findings) to some extent (Condit, 1990). Those working in the natural sciences, in pharmaceuticals for example, take many steps to make research value-free. In medical experiments, researchers work to prove that the medicine is affecting the body and not some other random variable like researcher personality, or the weather. This is why pharmaceuticals go through massive and long clinical trials including control groups and often use things like placebos.

Once you have chosen a theory, generated a hypothesis or hypotheses, and tested the hypothesis or hypotheses, you move to the fourth step of the scientific method: making empirical generalizations. An empirical generalization is what you use to describe a phenomenon based on what you know about it from your research. Your generalizations should build on and/or refine the theory in some way, and if at all possible provide some practical (real-world) implications from the research you conducted.

Michael Pfau's primary area of research was inoculation theory. This theory asserts that an individual can be inoculated against negative messages by giving them a small dose of the message before they encounter the full message. This is a persuasive form of a flu shot. Michael and his research teams developed countless hypotheses over the years. They tested their hypotheses using surveys and experiments. Their research was empirical, they were objective, and they took numerous steps to control for interfering variables. In all, this body of research has provided countless refinements to inoculation theory and numerous practical implications for media, politics, economics, and other walks of life. For example, Pfau argued that if a message had the right level of persuasive elements it could affect viewers enough so that they would not be impacted by future negative messages. Think about this in terms of political campaigns. If a candidate knows bad news is coming out about them, it serves them well to craft a pre-emptive message to counter the bad news before it hits the airwaves. While this tactic may seem counter-intuitive, it actually works. During the 2016 U.S. Presidential elections, Donald Trump would regularly tweet statements about what his challengers were going to say about him before it was said. Such inoculatory statements helped propel him to victory.

Now that we have gone over the basic definition of social science and the scientific method, the next section of Chapter 2 offers a brief historical review of the development of the social scientific paradigm.

Development of the Social Scientific Paradigm

The process of social science dates back to the ancient Greeks, Romans, and Egyptians. During these times, ancient thinkers combined empirical observations of behavior with deductive logic when confirming and discovering theories used to describe and predict human activity. Scholars such as Hippocrates (the father of the Hippocratic Oath) would typically gather massive amounts of empirical (scientific) data on specific issues and write about their observations. As the centuries progressed, and data collection and scientific methods advanced, researchers continued to develop the social scientific paradigm.

Great leaps forward were made in the social scientific paradigm in Europe in the 1700s, 1800s, and 1900s. Two British philosophers furthered a concept known as positivism, a highly social scientific paradigm. David Hume in his *Treatise of Human Nature* (1738/2000) outlined how human nature affects scientific research, and outlined his experimental method. John Stuart Mill, in his *A System of Logic* (1843/2011), discussed the relationships between logic and scientific research; specifically, he outlined the five principles of inductive reasoning known as Mill's method. Emile Durkheim, a noted French researcher, argued in *Rules of the Sociological Method* (1895) that science should be value-free. Durkheim argued that sociology must study social facts and researchers must use a

scientific method. Auguste Comte in *Cours de Philosophie Positive* (The Course of Positive Philosophy) (1830–1842) outlined the key principles of social science. He argued that the natural sciences were already being studied and conducted properly and that the social sciences would soon be conducted properly, too. Popper, an Anglo-Austrian (1902–1994), argued that key aspects of social scientific research—theories and knowledge—"can never be proven or fully justified, they can only be refuted" (Phillips, 1987, p. 3). This is the falsification aspect of a theory again. Collectively, these researchers paved the way for a wave of researchers who have continued to strive for value-free, logical, empirical, and predictive social scientific research.

With a basic understanding of the social scientific paradigm, and some of its early researchers, the following section outlines nine key questions guiding the social scientific paradigm

Key Questions that Underlie the Social Scientific Paradigm

1. How do the social sciences differ from the natural sciences?

Social scientists are concerned with describing and predicting human behavior. But the "social" part of social science can be very unpredictable. While a biologist might be able to predict the exact composition or behavior of a single-cell organism, social scientists are more concerned with predicting patterns based on general human behaviors. For example, a social scientist could be interested in the relationship between levels of violence and how much someone plays video games, such as *Grand Theft Auto.* This relationship will differ quite a bit depending on countless variables: what kind of video games does the person play, how long do people play the games per day, the person's psychological state before and during play, their relational status, their age, their sex/gender—the list goes on and on. The following studies have all looked at this phenomenon using the social scientific paradigm (Ivory & Kalyanaraman, 2009; Lachlan & Maloney, 2008; Williams, 2011). We will discuss more in chapters 16 and 17 how social scientists measure these behaviors and make claims based on human behavior.

2. What is the purpose of research?

As with every research paradigm, an important question to ask is: what is the ultimate purpose of the research? For the social scientist, the purpose of research is the discovery of theories that explain and predict human behavior and traits (Lindlof & Taylor, 2002; Littlejohn, 1999). In this quest, social scientists collect data and test the data with systematically developed theories of human behavior and traits. The process of testing theories is endless for a social scientist, just as knowledge is endless (Neuman, 2011). It is important to note, though, that the process is never-ending because theories are not perfect. Theories are constantly being refined as testing methods improve and as our understanding of phenomena changes.

3. What is reality?

For social scientists, reality can be observed by the researcher because reality is "out there" waiting to be observed, identified, and explained. Social scientists adopt a realist ontology (philosophical study of the nature of being). If we can see and/or touch something through our research, then it really is not complex at its basic root. For example, we can see or measure someone's sex, gender, race, and age. When variables relate to other variables, we work to explain why. For example, scholars have found that males are more likely to express argumentativeness than females (Schullery, 1998). Perhaps males express more argumentativeness because they are males? Research has shown sex and gender is related to heightened expressions of argumentativeness, along with numerous other variables. Thus, researchers interested in argumentativeness explore the reasons why males have been found to express more argumentativeness than females in some studies. Second, social scientists view reality as generally stable. Our traits and behaviors do not change dramatically over time; so if we conduct sound research today we can make predictions about human behavior that can be viable for many years.

4. What is human nature?

Social scientists recognize that human beings are essentially animals (mammals). While we sometimes forget this fact, humans are, unlike other mammals (as far as we know), consciously self-interested, rational, and take steps to avoid pain and seek out pleasure (Neuman, 2011). A social scientist typically tries to observe the stimuli occurring outside of the animal (humans). These researchers understand the difficulty (if not impossibility) in isolating every

phenomenon happening in the brain of an animal. As Durkheim (1938) argued, "social phenomena are things and ought to be studied as things" (p. 27).

5. Do humans have free will?

It is important to know that social scientists are deterministic in their thinking. Determinism refers to social scientists' belief that humans are created and their actions caused mainly by identifiable external forces as well as internal attributes. This means that many of the decisions we make in life are not only determined by our internal makeup, but also our surroundings (culture, people, politics, economics, etc.). Social scientists, therefore, study how external behaviors affect humans, and how these factors lead us to do certain things or act in certain ways. We are not saying that humans are robots who bend to the will of external commands (though some social scientists do operate under this philosophy). However, with determinism backing social scientific thought, we are able to make our predictions about human behavior because we can estimate how specific stimuli may lead to a change in some behavior.

> For example: Michael Pfau's research on inoculation showed that if you give an audience the right amount of a persuasive message, you could inoculate them against a future persuasive message. This is powerful information if you consider how political candidates and corporations are constantly trying to persuade us to do things … and they are doing it quite well, as we are regularly inoculated against messages without even knowing it.

6. What is theory?

Theory is one of the most important factors for a social scientist. Stephen fondly remembers Michael Pfau talking about how one of the goals of a social scientist is theory-testing *and* theory-building. In Stephen and Dan's early theoretical training, they were told that social scientific theory involves four elements. First, a theory can be descriptive, predictive, or causal in its explanation. If a theory is causal, it explains that X causes Y because Y and X are related in some way. If a theory is descriptive or predictive, it explains that X is related to Y and outlines the reasons. Second, a theory should clearly outline the situations under which it operates and/or applies. These situations are typically called boundary conditions (Dubin, 1978). One should not use a theory meant to study the immigrant cultural adaptation process when studying a potential spiral of silence around a political issue. Third, for social scientists, a theory should typically have axioms, postulates, and theorems. These statements add to the testability of theories. Fourth, a theory should, if at all possible, be applicable in various cultures.

7. How do you determine if an explanation is good or bad?

Social scientists use two criteria to determine whether an explanation is good or bad. First, you must ask yourself if the results are logical. Are contradictions evident in what you are presenting? If your results contradict previous research, can you offer a logical response as to why this might be the case? Stephen published a piece in 2011 (Croucher, 2011), in which he found that Muslims in Western Europe prefer to oblige and compromise in conflicts than to dominate. The stereotype was that Muslims would want to dominate a conflict and be an aggressor. Stephen had to provide an argument as to why Muslims would logically not be more dominating in a conflict. He argued that Muslims were not dominating because they were minorities in Western Europe, and so they had less power in the culture. Since this 2011 work, he has conducted additional analyses among Muslim populations in Europe and the U.S. to further his initial arguments. Thus far, his initial thoughts have held true, that the power dynamics of being a minority do indeed influence conflict style (Croucher, 2017). Second, social scientists are big fans of replication, more replication, and even more replication. A standard scientific practice is to repeat experiments to make sure they work the same way for every researcher every time. The same holds true for social scientific research. If you look at the method section of a statistics article in any communication journal, you will find that the author(s) provide(s) detailed information about how they conducted their research. The details are provided so other scholars can replicate the study.

8. How do you determine good or bad claims?

Claims are weighed based on our knowledge of empirical facts and theory. Popper argued that knowledge claims

cannot be proven or entirely justified, "they can only be refuted" (Phillips, 1987, p. 3). In this sense, refuting claims to knowledge is the never-ending quest that social scientists consider the testing of theory.

> Michael Pfau once told Stephen that being a social scientist means forever looking for the outlier, or the one oddball that makes us question our outlook on reality as we know it.

9. What is the place of values in social scientific research?

Social scientific researchers try to be devoid of values (objective). When conducting research from a social scientific paradigm, values and morals should not influence research decisions or outcomes. Social scientists strongly believe that research should be free of interference from religious, political, and other personal influences that may alter the objectivity of a researcher's process and/or findings. A researcher should be a disinterested scholar, one who observes and reports on phenomena without allowing values or morals to interfere. Value-free research is the ideal for social science. However, this is not always the case, as humans are by nature value-laden creatures. The job, then, of the social scientist is to recognize the place and impact of values on their research (Condit, 1990).

> Michael Pfau told Stephen when he was a student that to be a social scientist he should do his best to be an observer and not allow his personal feelings and/or other values to interfere with his research. Pfau told his students that scientists like Copernicus and Kepler were persecuted because others around them allowed their religious values to interfere with how they interpreted research. For social scientists, research should be separate from values, but this is not always 100% possible.

Summary

This chapter explored the first of the three paradigms, the social scientific paradigm. As stated earlier in the chapter, these researchers emphasize research combining empirical observations of behavior with inductive and deductive logic to confirm and test theories that are used to describe and/or predict human activity. For social scientists, describing and/or predicting human behavior, particularly through the testing of theory, is of the utmost importance. In Chapter 3 we delve into a different research paradigm, the interpretivist paradigm.

Key Steps & Questions to Consider

1. Social science is a method of research combining empirical observations of behavior with inductive and deductive logic to confirm and test theories used to describe and/or predict human activity.
2. A theory is an explanation of a phenomenon. Theories are not perfect. Theories should be continually refined.
3. Social science research is often based on hypotheses, which are educated guesses (predictions) about relationships between variables.
4. Social scientists differ in their preferred level of objectivity from interpretive and/or critical/cultural scholars.
5. While we try to describe, predict, and show causal relationships, human beings are not 100% predictable. Social science is the study of human nature, not natural science.
6. Social scientists strive for value-free research. However, it is virtually impossible to have 100% value-free research.

Activities

1. Look up a definition of the scientific paradigm and compare the standards, assumptions and expectations to the social scientific paradigm. Where do the two approaches agree and diverge?
2. You have significant experience with classroom communication. (After all, you have been attending classes for more than a decade—stretching back to kindergarten!) Reflect on your years and write down a list of classroom communication behaviors you can recall. Apply the standards of empiricism to your list. What

communication behaviors were observable and could count as data for a social scientific study?

3. Using the lists from the second activity, create a master list of classroom communication behaviors. Are any of the behaviors more tied to a specific grade (1st, 2nd, 3rd, etc.) or to a specific stage of school (elementary, middle school, college, etc.)? Can you draw any basic theories from the observations?

Discussion Questions

1. What is the purpose of communication research for social scientists?
2. How do the requirements for a social scientific study change how we approach the study of communication? What aspects of communication do you see as worthwhile for study? What aspects of communication might be difficult to study from the social science paradigm?

Key Terms

Control
Determinism
Empirical Generalizations
Empiricism
Hypothesis
Objectivity
Scientific Method
Social Science
Theory

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3 The Interpretive Paradigm

Chapter Outline

What Will I Learn About the Interpretive Paradigm?

The picture shows a cubistic face. We have always found abstract art to be fascinating because every picture can tell numerous stories. Anyone who looks at the picture will focus on different points of the face, which is one of the purposes of abstract art, particularly cubist art. The artist has produced a work which shows their feelings and compels us to think and feel. The use of color, shapes, shading, and a myriad of other techniques brings us into the picture and helps the artist achieve their goals. What do you see in the face? What do you think the artist is trying to convey? The face will inspire multiple interpretations since people come from different walks of life, have different lived experiences, and will focus on different aspects of the image.

The concept of varied understandings is at the heart of the interpretive paradigm. The interpretive paradigm is the second of the three paradigms discussed in your textbook. The other two paradigms are the social scientific (Chapter 2), and the critical/cultural (Chapter 4). For interpretivists, the preference when doing research is to look for varied interpretations or meanings. The multitude of interpretations and meanings in phenomena provide a wealth of information. As with social scientists, interpretivists are interested in theory, relationships, data, and value, but have a different approach. The key questions for interpretivists are: 1) what is theory, 2) what is meaning, 3) what is data, and 4) what is the place of value in the research process? In this chapter, we explore these questions and other aspects of the interpretive paradigm to research.

Interpretive Paradigm Defined

The interpretive paradigm is one of the three main paradigms of research. The interpretive paradigm holds that reality is constructed through subjective perceptions and interpretations. Interpretive researchers, unlike social scientists, believe that the study of human beings requires different standards and methods than the natural sciences. Researchers in the interpretive paradigm study the social construction of meaning through the analysis of individualized purposes, goals, and intentions in communication.

Interpretivists differ from social scientists in their approach to the scientific method and scientific rigor. Interpretive research answers many of the same questions as social scientific and critical research, just in different ways. As with the other research paradigms, interpretivists will generate or test theories. However, an interpretivist has their own view of "theory." We will discuss this in depth in the "Key Questions for the Interpretive Paradigm" section of this chapter. Interpretivists rarely use hypotheses; instead, they use research questions to guide their work. Research questions are another form of educated guesses about the relationships between constructs (variables).

Interpretivists reject the social scientific notion of empiricism (the notion that scholars can only research what they can observe). Instead, interpretivists generally embrace rationalism. Rationalism is the notion that we gain knowledge through the use of logic and reason. In this sense, we learn and describe the world around us through a variety of means. For example, most empiricists (mainly social scientists) would not conduct research on the existence of God. However, a rationalist could conduct this research since individuals can describe in a variety of ways how they experience the existence of God(s).

Subjectivity is the condition for a researcher to be involved or inseparable from the research context. A common practice for interpretive researchers is active participation in the research process, which means their personal feelings and identity can often be observed in the writing.

> A researcher would have a hard time trying to explain from an empirical and objectivist (social scientific) point of view the varied interpretations of what the cubist face means to each one of you. All of us come to the picture with different lived experiences and backgrounds. The subjective nature of art makes it interesting and brings to the table a diversity of opinions.

We have now gone over the basics of the interpretive paradigm. The next section of the chapter offers an historical review of the paradigm. The review serves to help further refine our understanding of the interpretive paradigm.

Development of the Interpretive Paradigm

Interpretivism developed as a response to the growth of social scientific inquiry in the 1800s and the 1900s. As the social scientific calls to action from scholars such as Emile Durkheim (1858–1917) and Auguste Comte (1798–1857) began to grow, many researchers, mostly German, questioned such calls to study human behavior from a more natural science perspective. Scholars like Georg Wilhelm Hegel (1770–1831), Edmund Husserl (1859–1938), Ferdinand Tönnies (1855–1936), Max Weber (1864–1920), and Georg Simmel (1858–1918) pioneered ideas such as *Verstehen* (the interpretive approach to social science). The researchers claimed that the natural sciences were inappropriate for studying human behavior since the methods did not consider cultural norms, symbols, values, or individual social processes (Weber, 1991). Tönnies, in fact, asserted that the major flaw of social science was its failure to consider the influences of community (*Gemeinschaft*) or society (*Gesellschaft*) on human behavior (Cahnman, Maier, Tarr, & Marcus, 1995). Through the work of these scholars, the interpretivist paradigm developed into various research fields still widely used today including hermeneutics, phenomenology, and symbolic interactionism.

Three Key Interpretive Approaches

Hermeneutics

Hermeneutics scholars were at first interested in studying and interpreting sacred texts, such as the Bible, the

Talmud, and the Vedas. In the late 19th and early 20th centuries, this philosophy expanded into the examination of various kinds of texts. Wilhelm Dilthey (1833–1911) in his classic work (1910) "The Understanding of other persons and their manifestations of life" emphasized the importance of hermeneutics in understanding the individual spiritual experiences of others. Scholars such as Martin Heidegger (1889–1976), Hans-Georg Gadamer (1900–2002), and Jürgen Habermas (1929–) have all expanded hermeneutics to focus on how interpreting a text reveals something about the author(s), the social context, and provides a shared experience between the author(s) and the reader(s) (Gadamer, 2003).

Hermeneutic researchers in communication studies identify three key points to remember. First, when exploring social activity, subjective understanding is paramount (not prediction, explanation, or control, which are key to the social scientific paradigm). For example, Waisanen (2013) in his analysis of a controversy with the Los Angeles County Seal identifies different groups who formed around the controversy. Each group had a different stake, different opinions, and a different way of experiencing the removal of a cross from the Los Angeles County Seal. Second, a variety of objects, concepts, and things can be considered "texts" for analysis. Waisanen identifies the texts as the seal, the cross, and a hearing between the Board of Supervisors and the public. Third, hermeneutic scholars argue that separating the observer from what they are observing is impossible and the point where subjectivity comes into play. For Gadamer (2003), the observer is, in fact, an intrinsic part of the research process.

Phenomenology

Phenomenology is the systematic explanation and study of consciousness and subjective human experience (Husserl, 1970). The study of phenomena is how we experience things in life and the meanings things have for us. The key thinkers are Edmund Husserl (1859–1938), Martin Heidegger (1889–1976), Alfred Schultz (1899–1959), Jean-Paul Sartre (1905–1980), and Maurice Merleau-Ponty (1908–1961). Husserl, in his concept of transcendental phenomenology, was keenly interested in the experiences we take for granted. All of our activities and experiences have a certain structure to them and we often overlook these structures. Thus, the phenomenological process steps back—transcends the phenomenon—in order to better understand what is or has happened.

For example, every time you have class you may have a verbal exchange with your teacher. How does this exchange happen? What do you say and what does the teacher say? How do the two of you verbally and non-verbally interact? The interaction might have become second nature to you both. However, if you investigate the interaction or experience, you are trying to transcend the taken-for-granted aspects. Why do we interact the way we do? The process of transcending is what Husserl called *epoch&00E9;,* or the attempt to set aside taken-for-granted aspects of an experience to gain a deeper grasp of the experience. In Leonard's (2013) phenomenological analysis of a Polar-Eskimo language in northern Greenland, he explains his experiences of engaging with language and culture. In his analysis, Leonard dissects the experience of speaking and knowing a language, which are often things people take for granted.

Symbolic Interactionism

Symbolic interactionism is an area of research emphasizing the relationships between symbols, the social world, and social interaction. Charles Horton Cooley (1864–1929), George Herbert Mead (1863–1931), and Herbert George Blumer (1900–1987) are primarily credited with founding and furthering this approach to research. Even though Mead never used the phrase "symbolic interactionism," he is still credited with founding the approach. The interpretive symbolic interactionists were primarily associated with what became known as the "Chicago School" (since most were located in or near Chicago). In 1934, Mead outlined three connected ideas that have become essential for symbolic interaction studies. Human thought (the mind) and social interaction (self and others) help us make sense of the world in which we live (our society). When you consider these three essential ideas, it is possible to see how researchers today conduct studies from this perspective.

MacLean (2008) explores framing organizational misconduct through deceptive sales practices. Using archival data, interviews, and a published report, MacLean found that the notion of misconduct is shaped by organizational members acting on behaviors socially constructed by the organization and society. The three interpretive philosophies, approaches to research, can all be employed using a variety of research methods. You will find all three approaches may use ethnography (Chapter 8), interviewing (Chapter 9), focus groups (Chapter 10), qualitative content analysis (Chapter 12), and other methods.

With a basic understanding of the interpretive paradigm, its development, and three approaches to interpretive research, the following section outlines the same nine questions posed in Chapter 2 for the social scientific approach. The comparison will help you understand the interpretive approach and the differences between the paradigms.

Key Questions for the Interpretive Paradigm

1. How does the interpretive approach to science differ from the natural sciences?

In Chapter 2, we talked about how biologists and other natural scientists may be able to predict the exact composition of an organism, but social scientists are not able to make similar predictions of human behavior. Interpretivists are not interested in *predicting* human behavior, but rather *understanding* human experiences. For example, while a social scientist might try to predict a relationship between how much someone plays *World of Warcraft* and their violent behavior(s), an interpretivist might study how a player understands and/or experiences the violence in the game. Klimmt, Schmid, Nosper, Hartmann, and Vorderer (2006) conducted interviews with players of violent video games. Their analysis explains why people play the games through the moral justification given for enjoying violent games. Such an analysis would be difficult to achieve through a social scientific approach.

2. What is the purpose of research?

The main goal of research for interpretivists is to understand how people construct meaning in life and understand experiences. If you look back at the definitions of hermeneutics, phenomenology, or symbolic interactionism, you will see all have one thing in common—they each study some aspect of meaningful social action or interaction. Geertz (1973) asserts that human actions are meaningless unless considered in their social and cultural contexts. This exploration of meaning is at the heart of the interpretive paradigm.

3. What is reality?

For interpretivists, reality is created through social interaction. Social interaction and reality are primarily what people perceive them to be (experiences and meaning). Our subjective experiences create our individual realities. While social scientists see the world from an objective, realist ontological point of view, interpretivists take a constructionist perspective (Neuman, 2011), meaning people construct reality out of their own experiences. Take, for example, "snow." We all experience snow falling to the ground differently. Stephen lived in Finland for a number of years (he now lives in New Zealand). In October and November, Finns look forward to snow because the months are normally rainy and dark with little sunlight. Finns typically feel a little bit better when the snow reflects the stars. They know holiday lights are coming and soon things will get a bit brighter. Stephen's parents, on the other hand, live in the United States (Nebraska), and see snow as a sign of icy roads and shoveling, not happy things. The constructions of "snow" differ, which lead to different realities.

4. What is human nature?

While social scientists look for patterns which can lead to explanation, prediction, and control, interpretive researchers understand patterns differently. Interpretive researchers believe patterns exist in human nature, but that patterns are a result of ever-evolving meaning systems, norms, and conventions people learn through interactions. The study on video game moral concerns (Klimmt et al., 2006) is an excellent example of researchers' interest in how human nature evolves around a particular issue in a given context. A central idea is how the morality of the players is socially constructed (Klimmt et al., 2006).

5. Do humans have free will?

Many social scientists support the idea of determinism—the belief humans and their actions are mainly caused by identifiable external forces and internal attributes. Interpretive researchers generally advocate for voluntarism—the idea people are able to make conscious choices based on reason. Researchers must be considerate of subjects' feelings and decision-making processes. Such processes and feelings often reveal how participants understand phenomena (phenomenology) and interact with society (symbolic interactionism).

6. What is theory?

While social scientific research strives to be descriptive, predictive, or causal in its explanations, interpretive theories try to describe or understand the lives of people in their social environment. Interpretive theorizing may make limited generalizations. However, interpretive theories focus on the social and lived experiences of individuals. For example, Collier and Thomas' (1988) cultural identity theory was designed as an interpretive theory (Collier, 1998). The theory explains how identities are negotiated in discourse.

7. How do you determine if an explanation is good or bad?

While social scientists are big fans of replication, interpretive researchers do not see replication as a major necessity. For interpretive researchers, two closely connected issues are key. First, the explanation must make sense to those whom the researcher is studying. As a researcher, you are studying a group of people and trying to convey their experiences. Your interpretation of their experiences should make sense if they read it. Second, the explanation should make enough sense so others can also understand the experiences of the group(s) you studied. When someone tells you a story and then you try to retell the story to someone else, you should try to be as true to the original story as possible. If you are not true to the original story, you may lose important information and the original intent of the storyteller.

8. How do you determine good or bad claims?

For social scientists, claims are weighed based on empirical facts and theory. For interpretive researchers, explanations and research should provide in-depth descriptions of phenomena, and offer coherent interpretations of experiences. A goal is to provide what Geertz (1973) calls "thick description." Interpretive researchers detail the experiences of others by providing a "thick" or rich description to substantiate the analysis.

9. What is the place of values in interpretive research?

Interpretive researchers embrace and analyze their position in the research process. For these scholars, separating values and morals from research decisions and outcomes is impossible. An interpretive researcher should not be a disinterested, objective scholar who reports on phenomena. Instead, an interpretive researcher is a subjective participant who is actively involved in the research process.

Let's return to the cubist face. An interpretive researcher could conduct in-depth interviews (Chapter 9) with individuals on their understanding of the painting. The researcher will more than likely get numerous responses. How have the social interactions, upbringing, and culture shaped how participants perceive the face? How does the background of the researcher influence how they see the face? The extent to which the researcher is involved in the process is an important factor to consider.

Summary

In this chapter, we examined the interpretivist paradigm. Unlike the social scientific paradigm (see Chapter 3), interpretivists believe reality is constructed through subjective perceptions and interpretations of reality. Such researchers, unlike social scientists, believe the study of human beings should not and cannot be held to the same standards or methods as the natural sciences. Researchers in this paradigm study the social construction of meaning through the analysis of individualized purposes, goals, and intentions in social sciences, humanities, and/or communication. In Chapter 4 we present the critical cultural paradigm.

Key Steps & Questions to Consider

1. The interpretive paradigm focuses on the belief that reality is constructed through subjective perceptions and interpretations of reality.
2. Rationalism is the notion that we gain knowledge through the use of logic. In this sense, we learn and describe the world around us through a variety of means.

3. Subjectivity is the need and desire for a researcher to be involved or inseparable from the research context.
4. Hermeneutics scholars were first interested in interpreting and studying sacred texts, such as the Bible, the Talmud, or the Vedas. This interest expanded into the examination of various kinds of texts.
5. Phenomenology is the study of phenomena, how we experience things in life, and the meanings things have for us.
6. Symbolic interactionism is an area of research that emphasizes the relationships between symbols, the social world, and social interaction.
7. Interpretivists are interested in understanding human experiences.
8. Interpretive researchers generally advocate for voluntarism, or the idea that people are able to make conscious choices based on reason.

Activity

Develop a "cheat sheet" for comparing the different research paradigms.

a. Prepare a chart with four columns and 10 rows.
b. Label the four columns (in the first row): 1. Key Questions; 2. Social Science; 3. Interpretive; 4. Critical/Cultural.
c. Fill in the rows of column 1 under your Key Questions heading with abbreviated versions of the Key Questions listed earlier in the chapter (e.g., "interpretive approach vs. natural sciences").
d. Fill in your Social Science and Interpretive paradigm columns with significant components to help you remember how to distinguish between the different approaches. You can add to the Critical/Cultural column after reading Chapter 4.

Discussion Questions

1. How will following the interpretive paradigm alter approaches you might take for different communication research projects?
2. Researchers, while familiar with all the research approaches, tend to gravitate toward one of the paradigms. What aspects of the interpretative paradigm do you find compelling? What aspects do you find disquieting?

Key Terms

Hermeneutics
Interpretive Paradigm
Phenomenology
Rationalism
Subjectivity
Symbolic Interactionism
Voluntarism

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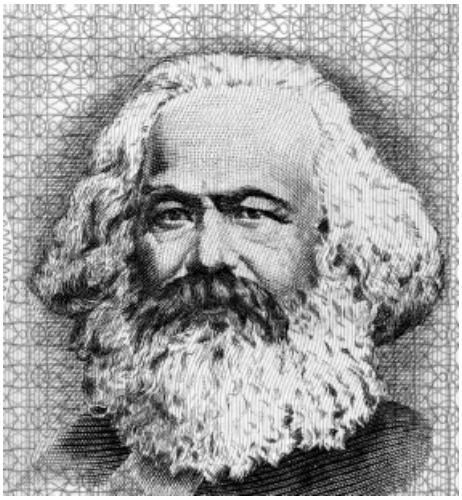
4 The Critical Paradigm

by James P. Dimock

Chapter Outline



What Will I Learn About Critical Theory?

In the classic Disney-Pixar film *A Bug's Life,* an ant named Flik stands up to the Hopper, the leader of a gang of grasshoppers who tyrannize the ant colony. As winter approaches, however, many of Hopper's gang are not interested in going back to Ant Island to deal with one rebellious ant. Hopper demonstrates the importance of dealing with Flik through a brilliant, if violent, metaphor:

> "Let's pretend this grain is a puny little ant," Hopper says, throwing a few seeds at a couple of reluctant gang members. He asks, "Did that hurt?"
> "Nope," says one gang member.
> "Are you kidding?" laughs another.
> "How about this?" Hopper asks, opening a chute and burying them under thousands of seeds. Hopper explains the way the world works to the rest of his gang, "You let one ant stand up to us then they all might stand up. Those 'puny little ants' outnumber us a hundred to one and if they ever figure that out, there goes our way of life. It's not about food. It's about keeping those ants in line. That's why we're going back!"

Hopper's monologue is about power. The grasshoppers' power over the ants isn't physical. One grasshopper is stronger than one ant or even several ants put together, but if the ants collectively stand up to the grasshoppers, they are physically stronger. The grasshoppers' power is what critical theorists call ideological: that is to say ideological power functions at the level of the ants' thinking about the world, about what they are—and are *not*—capable of doing. Hopper's power is over the ants and his fellow grasshoppers. His companions would have been satisfied living out the winter without going back to Ant Island. Hopper uses both the threat of violence and the use of language to interpolate the ideology of power and control in the minds of the grasshoppers. After all, their

entire "way of life" is at stake. If the grasshoppers are reluctant to use their power, they may lose everything.

Critical theorists are primarily concerned with power and oppression, or the exercise of power by one entity (e.g., a person, group, organization) for its own benefit over another entity. Critical theory is different from other approaches to communication research since it looks for ways to change the relationships of power and overcome oppression. In this chapter, you will learn about critical methods of research. You may notice this chapter is longer than the other two paradigm chapters (Chapters 2 and 3). By its nature, the critical paradigm is complex and convoluted. A number of brief history lessons are needed to understand how the critical paradigm came about. Take your time as you move through the chapter. Let the concepts "percolate" for a while until they reach a nice strong brew. Then you will be ready to take a good long drink and enjoy the critical approach to research methods.

Traditional Approaches to the Study of Power

Power, sometimes called influence, has been a subject of interest for social theorists, political scientists, and communication researchers for a long time. In fact, the earliest communication theorists and scholars, the Greek Sophists, were interested in how to use language to influence large groups of people, such as juries and legislative assemblies. Traditionally, power has been understood by communication scholars as the ability to perform an act that will result in a change in someone else (Cartwright & Zander, 1968). For example, Olivia could tell Peter she will beat him up if he does not give her his lunch money. If Peter gives Olivia his lunch money, an act he would not otherwise have done, then we can say Olivia has power over Peter. This type of power is called coercive power because it threatens some harm. Olivia could have convinced Peter to give up his lunch money by promising to do his homework for him (reward power) or by reminding Peter he had borrowed money from her earlier and promised to pay it back (legitimate power). Olivia could have used persuasive power by making a compelling argument to turn over the lunch money. Persuasive power is the form of most interest to communication scholars.

A traditional understanding sees power as both a thing (an object that people have and use) and a performance (an action people carry out). This locates power in the consciousness of the person with power (Olivia) and in the consciousness of the person over whom power is exercised (Peter). One of the most influential philosophers of the early 19th century was Georg Wilhelm Friedrich Hegel (1770–1831). Hegel came to believe that all history was "the history of thought" and that the way people think determined material and historical conditions under which they lived.

Hegel's approach was a philosophy of change. The rationalism of the Enlightenment (1685–1815) was founded on mechanical physics. The universe and everything in it, including human beings and societies, functioned much like a pocket watch. The universe is a closed system in which matter in motion causes other matter to move. But rationalism could not explain how things changed. In mechanical physics, change only comes from the outside. As the pocket watch winds down, a force outside the system—a key and a hand to turn it—makes the watch go again. However, for mechanical physics, nothing outside of the universe compels the change.

So, what produces change? Hegel believed in dialectic—a tension—between an idea and its contradiction. We tend to think of a contradiction as something's opposite. Black is the contradiction of white; yes is the contradiction of no. However, Hegel had a different idea in mind. Gasper (2010) explained contradiction with an example: Within every caterpillar lies the potential to become a butterfly. At the point where when a butterfly exists, the caterpillar ceases to exist. And a butterfly does not have the potential to become a caterpillar. Thus, within every caterpillar lies its own negation (the butterfly negates the existence of the caterpillar). If you negate the caterpillar though, you also negate the butterfly. The important part of the story for Hegel is the movement from one to the other—the process of becoming. This Hegel called the dialectic or the contradiction between an idea and its negation.

Hegelian thought is extremely dense and complicated and we provide only a brief glimpse of his ideas. Suffice to say for Hegel, a person's place in the universe is determined by thought (the world of ideas). For Hegel, "the sole method by which those who have the good of society at heart can improve society, is to develop in themselves and in others the power of analyzing themselves and their environment" (Berlin, 1963, p. 49). An analysis of self and others is now called critique (or spelled in the German form as "Kritik"). Systems of human interaction are systems of the mind; they are ideas and they resist change. However, the ideas contain the elements of their own negation in the same way a butterfly may negate the caterpillar. True change comes from changing ideas or what Hegel called the Spirit.

Hegel's philosophy came to dominate the thinking of Europeans, especially Continental philosophers, during the 19th century. In the wake of the French Revolution and the Napoleonic Wars, the thinking took on a decidedly anti-revolutionary, or reactionary, form. Ideas were understood to be the driving force of history. A nation was the manifestation of a particular idea which simply cannot vanish through revolutionary action or through the efforts of reformers. Only through the nation and the state could a person be what they were supposed to be and the desire to radically transform the state was self-destructive. Hegel's philosophy elevated intellectuals and idea-shapers such as artists, writers, scientists, and philosophers as the true agents of change.

> Let's return to the example of Olivia and Peter. The change is not in the action of Peter giving Olivia his lunch money but rather in the ideas which permitted Olivia to believe she had a right to demand Peter's lunch money and Peter believing in the ideas he must do so.

The Rise of Marxism and Critical Theory

Many philosophers embraced the earlier works of Hegel, which stressed the importance of change and freedom, while rejecting his later works about the importance of the nation and state even when the state was authoritarian. These philosophers were called the Young Hegelians and believed ideas to be the driving force in history. Others agreed with Hegel's philosophy of change but rejected his idealism. One of the most influential was Karl Marx. (His picture starts out this chapter. Did you think the picture was Flik in his later years?)

Karl Marx was born in 1818 in the town of Trier in the German Rhineland. In the years following the French Revolution and the Napoleonic Wars, many Germans hoped the hodgepodge of independent feudal states would be united to form a single nation-state like France and Britain. When Napoleon subjugated the Germans, he imposed a set of laws called The Napoleonic Code which, among other things, lifted many of the prohibitions on Jews entering civil life. Marx's father, Herchel Levi, came from a long line of Rabbis in the Rhineland and took advantage of the new situation to become a lawyer. The hopes for a liberal Germany were lost following Napoleon's disastrous invasion of Russia in 1812 and his final defeat at Waterloo in 1815. The aristocracy in Germany was restored and promptly reasserted its authority. In 1816, anti-Jewish laws effectively cut off Levi's livelihood. The year before Karl Marx was born, his father converted to Lutheranism and changed his name from Herchel to the more German-sounding Heinrich. Isaiah Berlin (1963) recounts a story of Heinrich giving a speech at a public dinner. Heinrich suggested that a wise and benevolent ruler ought to support moderate political and social reform. This mild criticism attracted the attention of the Prussian police and Marx's father was quick to recant his statements. In Berlin's words:

> It is not improbable this slight but humiliating contretemps [minor dispute], and in particular his father's craven and submissive attitude, made a definite impression on his oldest son Karl Heinrich, then sixteen years old, and left behind it a smoldering sense of resentment, which later events fanned into flames. (p. 23)

In his adult life, Karl Marx went on to become one of the most insightful and outspoken critics of the new social and political order called capitalism.

Human history has been a struggle for survival. Humans need clothing and shelter for protection from the elements and other animals. Humans need food in a never-ending quest to stay alive. Human beings are, however, different from other animals. Much of philosophy is the effort to determine what makes humans different from other animals. Aristotle, for example, said human beings were logical and political animals. Others believe the ability to produce and use tools make humans unique. For Marx, the central and defining aspect of human beings is labor. Many creatures transform their environments—birds build nests and beavers build dams. Yet human labor is fundamentally different. Through labor, humans transform their environments and themselves.

Our early pre-human ancestors were primarily vegetarian and needed wide, flat teeth to grind plant material and a long digestive tract to turn plant material into calories. When humans started eating meat, things changed. Our digestive tract became shorter and the energy it took to digest plant matter was re-routed to our brains. In order to become meateaters, we needed tools. We used hunting tools to catch fast-running prey and cutting tools to butcher the prey. Tools made our gathering, processing, and storage of grains, fruits, and other nutritious plants more efficient. Together, all this meant we could have leisure time: time to think, to plan, and to create. We did not become just better versions, but were fundamentally and physically transformed beings.

From the Marxist point of view, it wasn't changes in our consciousness that transformed us physically, but our

physical transformation which made thought possible. Labor power, which for Marx consists of the "aggregate of those mental and physical capabilities existing in a human being, which he exercises whenever he produces a use-value of any description" (p. 336), transformed and continues to transform the human being which eventually led to the formation of classes. The concept of the division of labor appears in social thought as far back as Plato in the 4th century B.C.E. and was central to the work of economic philosopher Adam Smith writing in the late 17th century C.E. Writing a generation after Marx, Durkheim (1955) argued that the division of labor defined civilization. This division regulates our interactions lest conflicts "incessantly crop out anew" and "mutual obligations had to be fought over entirely anew in each particular instance" (pp. 5–6).

A society without division of labor has each person equally trained and responsible for every task. In such a society, every person is his or her own farmer, blacksmith, police officer, etc. Division of labor maximizes efficiency and permits specialization and innovation. One person specializes in farming, another in breeding oxen for plowing, a third in making plows and farm implements, and a fourth in conducting communication research. (You are now training for the fourth specialization!) Given time to specialize and engage in a craft, each person gets better, recognizes opportunities to improve and become more efficient. Over time, people identify with the work they perform and take pride and find meaning in their work. The division of labor depends upon fixing social and economic roles. As Marxists understand it, the division of labor is part of a system of relationships of production based on social and political classes.

Understanding Class

Many people have trouble understanding class, particularly in places like the United States where class is not something we talk about very often. The U.S. does not have a history of formal nobility so we don't have many historical or material indicators of class and those we do are indicators not of *class* but *wealth* (e.g., lower class, middle class, and the upper class). Marx understood that industrial relations of production produce two classes, the bourgeoisie (the ruling class) and the proletariat (the working class).

The definition of class has little to do with how much money a person has or makes but rather, with their relationship to the means of production. Every society has means of producing wealth. In an agricultural society, production is the land, which is necessary to produce food for humans and animals. In an industrial society, production might be the factories to produce consumer goods. The ruling class owns the factories; the working class works in the factory. The working class has only its labor to sell. Remember, for Marx, labor is what defines a human being, so selling one's labor is selling one's self. The worker has little choice in what is made, the conditions under which it's made, or to whom it's sold. Of course, a worker can choose to work or to work somewhere else, yet the worker is never in control of those conditions. The factory owner, on the other hand, has all kinds of options. He can choose not to hire anyone, close the factory, move to another city, or make a different product.

In a world in which a person owns his or her own labor, they decide what they will make and when, and how it will be used. Let's say a cobbler makes shoes and comes up with a way to improve her efficiency and make more shoes in less time. She benefits from her innovation by having extra time to do something else or by making even more shoes and more profit. But if a worker in a shoe factory comes up with the same innovation, the rewards of creativity go to the factory owner.

In mass production, the worker typically only produces a small part of the final product. This de-skilling of labor alienates the worker, reducing one to a tool. The alienation extends to the social system as a whole. Workers see others as competitors with whom they must compete to keep their jobs. Alienation is helped by racial and cultural myths which may further divide workers, preventing them from realizing the power of unification. Alienation dehumanizes us. Separating workers from their labor makes them less human in how they relate to one another and how they understand themselves. The ruling class (the bourgeoisie for Marx) is also caught up in the cycle of dehumanization. They are separated from themselves because, while they do not labor the same as workers, they purchase, which furthers an insatiable need to find meaning through consumption.

In order to understand the distinction between classes, let's think of a professional football team. The players—even while many of them make significant amounts of money—are the working class. Their bodies are put on the line suffering damage from being hit over and over again. Their labor produces the game. While we may think of the players as rich and part of the ruling class, they are workers alienated from their labor in many respects. Most have little say in deciding the team they play for, and no control over the lineup, the game schedule, or the rules.

A player cannot decide that he does not want to play in Detroit's Ford Stadium. Perhaps the player is Jewish and is troubled playing in a stadium named for a renowned anti-Semite. The rules are set by, and set up to benefit, the owners in the League. The issue isn't money, but one's position in the relationships of production which determines one's class.

Understanding Ideology

Next, we need to understand Marx's distinction between the base (also called the substructure) and the superstructure. Our social world begins with real, material, productive forces and resources. Some communities are built along rivers which provide transportation or fishing, others on salt flats or grazing lands. The available resources are real material forces which determine the range and scope of economic relationships. In order to live, individuals enter into economic relationships with each other. These material resources and the necessary economic relationships are the base (substructure) of society. Upon this base, the superstructure of the society is built. The superstructure consists of the visible forms of society such as art and culture, and institutions like the courts, police, and religion. If the function of the base is production, the function of the superstructure is to reproduce the conditions of production.

In order for the means of production to keep on producing, labor power requires "the material means with which to reproduce itself" (Althusser, 1989, p. 63). These means are wages—the money paid to the worker to purchase housing, food, clothing, and other items "to present himself at the factory gate" each morning, ready to offer his labor power (Althusser, p. 64).

But what of the relations of production? At the beginning of this chapter, we looked at an important scene from the movie *Bug's Life.* The ants, if they gathered together and stood up to the grasshoppers, would surely win. They outnumber the grasshoppers at least a hundred to one. This, Althusser argued, is ideology.

Ideology is a difficult word to understand because many people use the word and they use it—and even pronounce it—in many different ways. We are going to use the term the way Marx and his co-writer Fredrick Engels (1978) used in their work *The German Ideology* and how Althusser (1989) used the term in his article "Ideology and Ideological State Apparatuses." The term refers to a type of false consciousness, an illusion which makes the real world difficult, but not impossible, to see and understand.

Power, from a Marxist perspective, is maintained in two ways. The first is through what Althusser called the Repressive State Apparatus. For Althusser, like Marx and Engels, the state does not refer to a political subdivision (e.g., the State of Illinois, the State of Kansas) but to an independent political entity (e.g., the United States, Great Britain). The state has sovereign power since it is not subject to any other power. Althusser (1989) described the state as "a 'machine' of repression, which enables the ruling classes to ensure their domination over the working class" (p. 68). The state maintains law and order by protecting the established relationships of production. The state makes capitalist exploitation of the working class possible.

In his 1919 essay "Politics as a Vocation," German sociologist and economist Max Weber defined the state as "a human community that (successfully) claims the *monopoly of the legitimate use of physical force* within a given territory," while "the right to use physical force is ascribed to other institutions or to individuals only to the extent to which the state permits it" (p. 1, emphasis added). Any other use of violence or force is considered criminal. The state is allowed to do things which are illegal for others. The state can declare that a portion of the money you earn belongs to it. The state can tell you what you can, cannot, and must do. If you refuse to accept its rules, the state can fine you or lock you up or even, in extreme circumstances, kill you. The state reserves for itself the exclusive right to the legitimate use violence. For Althusser (1989), "the Government, the Administration, the Army, the Police, the Courts, the Prisons, etc." are entities, which "function by violence" (p. 73).

We need to understand the second way power is maintained through what Althusser called the Ideological State Apparatus. Ideological apparatuses serve the interests of the state and work hand in hand with repressive state apparatuses, yet function in different ways. First, repressive state apparatuses are singular and under public control while ideological state apparatuses are plural (many coming from different directions). Ideological state apparatuses may be held in state hands but are more likely under the control of private powers outside the state. Finally, repressive apparatuses work through violence while ideological state apparatuses operate through interpellation by impacting the way we see and understand the world around us. They shape our consciousness in particular ways. Ideological apparatuses include things like:

Religious institutions, which help to explain why some people have power and others don't, and provide for an

ultimate justice in an afterlife for those who suffer in this one. Religious institutions often teach respect for and obedience to authority as part of a divine and unquestionable plan.

Educational institutions provide for the training of the next generation of workers, making sure we have the right workers in the right proportions to meet our economic needs. Educational institutions provide us with our knowledge of history, science, politics and other important ideas.

Communications networks such as radio, television, news and the Internet give us the information we need to make decisions about our lives. They have considerable control over how we understand issues. Audiences rarely get to see news which challenges corporate, economic powers. The institutions which control the media are themselves corporations who are dependent on still other corporations for advertising revenue.

Cultural institutions are an important means of shaping our understanding of the world. Painters have long painted religious scenes, and portraits of nobility and the wealthy. Operas and theatre glorify the achievements of great men to whom we should look for our salvation. In our time, the artistic community often appears to be liberal, even radical in its politics. Like the media, television and movies have been advocates of social change including civil rights, women's rights, and rights for lesbian, gay, bisexual and transgendered persons. Marxists, however, would be skeptical of this support. Media corporations, radio, television, movies, and publishers are part of the corporate power structure.

Althusser (1989) included institutions like legal theory and scholarship, electoral politics, and even political parties and trade unions as ideological state apparatuses. These structures help to create the impression that the state is balanced, fair, and responsive to everyone's needs. This is a false consciousness: a vision of the world which does not line up with reality and obscures reality, making it hard to see and harder to reform.

We need to keep in mind that no hard dividing line exists between repressive state apparatuses and ideological apparatuses. Courts, for example, rely on legal scholarship and precedent to shape the law giving courts both ideological power and repressive power. The military fights wars and may suppress an insurrection, yet also trains millions of young men and women, indoctrinating them with certain values and beliefs about the nation and the world.

The Postmodern Turn in Criticism

Marxist criticism is both rationalist and modernist in its outlook and scope. In this sense, Marxist criticism may be seen as part of the social scientific paradigm described in Chapter 2. Postmodernism is an important movement which some say breaks from Marxism, turning back to a Hegelian idealism, while others argue that it is a logical and necessary extension of radical thought going beyond the narrow limitations of Marx's economic determinism. Postmodernism more closely resembles the interpretive paradigm we talked about in Chapter 3.

What Happened?

The world has changed dramatically since the 19th century when Marx was writing. Marx's proletariat consisted of German men working in factories or on farms. Since the end of World War II, worldwide movements against colonialism and domestic struggles for civil rights by women, racial minorities, and by lesbian, gay, bisexual, and transgendered persons have radically changed the way we see and think about the world.

Marxism has declined in public acceptance. The rise of reformist movements and the postwar economic boom raised the standard of living for much of the working class in Europe, North America and parts of Asia while at the same time the outsourcing of production has pushed many of the problems faced by the 19th century proletariat to the developing world. Because the inequities of capitalism may be harder to see, they are harder to challenge.

Finally, the rise of the world's first communist state, the Soviet Union, beginning with the Russian Revolution in 1917, had an important impact on the development of socialist thought. Led by Vladimir Lenin, the brand of communism pursued by Russians was called Bolshevism and favored a top-down approach to implementing socialism. Once in power, a strong impulse started among radical movements around the world to support the Soviet Union and to model themselves after the Russian model. The Soviets furthered the Russianization of leftist movements by supporting Bolshevist movements at the expense of other leftist groups such as Trotskyists and anarchists.

After World War II, revelations about the crimes of the Soviet leader Stalin and the repression of Marxist

thought during the Cold War led many leftists to distance themselves from revolutionary politics. Marxists became just another political party, joining coalitions with other leftist parties in an effort to legitimize themselves. In the academic world, Marxists retreated to the realm of ideas rather than political reforms.

What Is Postmodernism?

Postmodernism is notoriously difficult to understand and often marked by complex and sometimes mind-numbing language. Jean-Francois Lyotard (1993) defined postmodernism as "an incredulity towards metanarratives" (p. xxiv). Lyotard's definition, while a simplification of postmodern thought, highlights a primary assumption of postmodernity and what makes it different from traditional Marxist thought. Marxists understand ideology as a "false consciousness" or a screen between us and reality. Postmodernists do not believe in a definitive Reality or singular Truth, known as the metanarrative. Cloud (1994), a communication scholar, argued that postmodernism is both idealist (it treats ideas as the primary foundation for realities) and relativistic (with rejection of Truth in favor of a plurality of truths and realities). Eagleton (2003), a Marxist critic, defined postmodernism as a "movement of thought which rejects totalities, universal values, grand historical narratives, solid foundations to human existence and the possibility of objective knowledge" (p. 13). So, if they don't believe and study Truth and Reality, what *do* postmodernists believe and study?

Materiality of discourse

Like Marxists, postmodernists are concerned with the material world but, unlike Marxists, they define it differently. For postmodernists, discourse (the totality of our language use) *is* material in three senses. First, discourse affects the material world. The way we talk about the world shapes our understanding of it and thus how people act in the world. President George W. Bush spoke of an "axis of evil" during his 2002 State of the Union Address and helped to convince many Americans of the imperative we go to war in Iraq. Second, discourse is material because it serves the material interests of those in power. For example, advertisers use images and slogans to influence our purchasing or political practices. Finally, in its most radical form, discourse doesn't just influence the material world, it *is* material. Reality isn't just socially constructed but discursively constructed. All of our relationships, "economic, political, or ideological are symbolic in nature" (Cloud, 1994, p. 142).

Discourse as performance

In rationalist thought, power has a center. For Marxists, the power center is the means of production. Postmodernists attempt, however, to de-center power. Power is not something one *has* but rather something one *does.* Power is discouse performed over and over again making it possible to do some things and not others. For Michel Foucault (1926–1984), arguably the most important postmodernist, knowledge as a product of discourse is always "controlled, selected, organised and redistributed according to a certain number of procedures, whose role is to avert its powers and its dangers, to cope with chance events, to evade its ponderous and awesome materiality" (Foucault, 1972, p. 216). Separating knowledge and power is impossible. The two are not the same—knowledge is not power and power is not knowledge—yet we always find them together. So, to change the discourse, or what Foucault called the discursive formations, changes the structure of power.

Polysemy

The lack of a metanarrative—no truth existing independently of a person's perspective—means that we should not be searching for one singular truth. Representations of discourse such as a conversation, a movie, a book, or a speech are both fragmentary (always part of a larger whole) and intertextual (comprised of fragments of other texts). The implication is that we cannot find just one truth but are surrounded by many truths and many meanings, what postmodernists call polysemy. The idea that communication scholars should be looking at the multiplicity of perspectives has had a significant impact on the field.

Identity

Unlike Marxists, who operate with a simple definition of identity based on class, postmodernists take a much broader view of identity. Like power, identity is not something we have or are born with but something we

perform. Because power has no center, postmodernists view the binary (a two-part opposition) of bourgeoisie and proletariat or oppressor and oppressed as too simplistic. Because power has many formulations, oppression takes many forms and postmodernists have looked beyond the class struggle to consider questions of gender, sexuality, and race. Postmodern approaches to criticism recognize the oppression faced by working-class white men is not the same as faced by Chicano laborers or African-American lesbians. If the nature of their oppression is fundamentally different, then we must assume that the mode of their liberation must also be different.

Conclusion

In the introduction to their work on critical theory, Ingram and Simon-Ingram (1992) wrote:

> Unlike most contemporary theories of society, whose primary aim is to provide the best description and explanation of social phenomena, critical theories are chiefly concerned with evaluating the freedom, justice, and happiness of societies. In their concern with values, they show themselves more akin to moral philosophy than to predictive science. (p. xx)

Marxism and postmodernism, while different on several key points, are not competing perspectives but two different outlooks within the same overall paradigm. A whole range of thinkers fills the space between Marxism on one end of the spectrum and postmodernism on the other. What unites the researchers is the commitment to using theory and research to bring an end to oppression in whatever form it takes and to maximize human freedom and happiness.

Summary

In this chapter, we explained the critical/cultural paradigm, the third of the three research paradigms. This paradigm focuses on various issues, such as the place of power and ideology in society. While each of the three paradigms discussed in section 1 of this textbook approach research differently, each share very similar qualities. We will discuss some of those shared qualities in the second section of this textbook, "Research Design."

Key Steps & Questions to Consider

1. Critical theorists are primarily concerned with power and especially with oppression, or the exercise of power.
2. A traditional understanding of power includes influence, coercive power, legitimate power, reward power, and persuasive power.
3. Hegel was concerned with the dialectic—the contradiction between an idea and its negation.
4. An analysis of self and others is now called critique (or spelled in the German form as "Kritik").
5. For Marx, labor is the central defining condition of being human.
6. A Marxist critique focuses on the system of relationships of production based on social and political classes.
7. The substructure, the superstructure and influences by the Repressive State Apparatus and the Ideological State Apparatus are key components in the Marxist approach.
8. Postmodernism questions the role and function of a societal metanarrative.
9. Discourse is material within the postmodern perspective.
10. Discourse as performance focuses on power as something one does.
11. Polysemy means discourse is both fragmented and intertextual allowing for multiple truths, meanings, and realities.

Activity

1. Divide the class into groups. Each group is given a different issue. The issues are slavery, prohibition, women's suffrage, same-sex marriage, and child sex abuse by priests.

    a. How would a Marxist understand the issue?
    b. How would a postmodernist understand the issue?

2. Bring the groups back together and share their insights.

a. What commonalities emerged from the discussions?
b. How were the situations different in both a Marxist and postmodern perspective?
c. Hang on to your notes from this activity. The notes may come in handy in Chapter 20.

Discussion Questions

1. What types of research questions do critical theorists ask?
2. How do critical methods of research differ from other methods you have studied in this book?
3. How does Marxist criticism differ from postmodern criticism? In what ways are they the same?

Key Terms

Base
Binary
Classes
Coercive Power
Critique
De-center
Dehumanization
De-skilling
Dialectic
Discourse
Fragmentary
Ideological
Ideological State Apparatus
Influence
Interpellation
Intertextual
Labor
Legitimate Power
Means of Production
Metanarrative
Oppression
Persuasive Power
Polysemy
Postmodernism
Reactionary
Relationships of Production
Repressive State Apparatus
Reward Power
Russianization
Spirit
State
Substructure
Superstructure
The Napoleonic Code

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Part 2
Reseach Design

5 Data

Chapter Outline

What Will I Learn About Data?

Data is all around us. Data impacts everything we do. In *The Matrix* trilogy, Neo and his compatriots battle evil machines and "agents" in a fight to protect and liberate humanity from the Matrix. We learn in the films that the Matrix is really nothing more than a simulated reality, a computer program created to control humanity. Neo, the one who has been pre-chosen to free humanity and end the Matrix, is one of the few people who can see the truth of the Matrix. The Matrix is a string of numbers, like the one above. It is a collection of numeric data, that when taken together tell us something about what they describe. In the case of the Matrix, the numbers Neo and his fellow freedom fighters saw were the Matrix formula. They saw the Matrix "talking." Data in Neo's world was all around him. Most technological things we do in life function with such matrices behind them: bank transactions, the Internet, phone calls, etc. However, data does not have to just be numeric. Data also include interview transcripts, observations, paintings, and song lyrics, just to name a few.

Data is an integral aspect of the research process. Without some kind of data, how can research take place? This question brings up other important questions. For example: 1) what is data, 2) how is data collected, 3) where does data take place, 4) and what are the different levels of data? We explore these questions, and others, in our discussion of data.

Sources of Data

When you conduct research, you are going to collect and/or analyze some kind of data. Data is information that has been collected in a systematic manner. The information can be numeric (quantitative), or non-numeric (qualitative, critical, rhetorical). Most communication scholarship comes from one of four kinds of data: 1) texts, 2) observations and/or interviews, 3) self-reports, and/or 4) other-reports.

Texts are written, spoken, performed, or symbolic messages. The texts can be intentional or unintentional (like

non-verbals we don't even know we do). If your interest is in written texts, you can choose from a wide range of forms to use in your research project. We discuss in the method chapters later in the book how to analyze such texts. Written texts can be drawn from newspapers, magazines, books, diaries, journals, obituaries, e-mails, maps, photographs, poems, policy statements, chat room logs, bank account records, and the list goes on. Spoken texts include politicians' inaugural addresses, wedding toasts, concession speeches, acceptance speeches, and so forth. Performed texts can include music, stand-up comedy routines, performance art, a circus routine, mime, etc. Finally, symbolic messages are wide open and can include paintings and other kinds of art, architecture, fashion, jewelry, hair designs, landscaping, tattoo art, etc. If a "text" communicates a message, the "text" can be analyzed from a communicative perspective. The key is to find an effective theoretical and methodological perspective. Many texts are analyzed using methods such as content analysis, rhetorical criticism, or critical/cultural analysis, but other ways exist. For example, Capous-Desyllas and Johnson-Rhodes (2018) conducted an ethnographic study of gay rodeos to understand how participants experience their identities and to understand the meanings participants attribute to participation. The study showed unique identities among participants and that gay rodeos emerge as spaces of contestation, resistance, and reification of gender norms and heterosexuality. We will talk more about ethnography (Chapter 8), as well as ways you can analyze texts in Part 3 of the book. Social scientific, interpretive, and critical scholars all analyze texts.

Observations represent data when you watch human behavior in action. Anthropology has a rich history of this kind of research. Anthropologists such as Margaret Mead (1901–1978) and Franz Boas (1858–1942) spent long periods of time observing groups of individuals. Occasionally, these researchers would break away from the observation of their participants and interact (conduct interviews) with them. Most of Mead's research involved studying the Samoan people, while Boas primarily researched Eskimos of the Canadian Artic and Native Americans in the Pacific. The primary purpose of their research was to watch human behavior in action. This is the main goal: to observe behavior (communication) in action. The data in an observational method is your field notes as you write down what you see occurring. What kind of communicative behavior do you see? What is happening? Why do you think such behaviors are happening? These kinds of questions, and many more discussed in Chapter 8 on ethnography, comprise observations as data.

Observing can be taken a step further when a researcher decides to interact with the participants by observing and interviewing. In this case, the interview questions become a second form of data that works in conjunction with the observation field notes. With developed interview questions related to the context, a researcher can delve deeper into the behaviors they are interested in studying. We talk more about interviewing in research in Chapter 9. A classic example of observation and interview used by many communication instructors is Philipsen's (1976) analysis of "Teamsterville," which is a certain area of Chicago. In the analysis, Philipsen discussed how he observed and interviewed participants in "Teamsterville" to understand the various places for certain kinds of talk. You will find that many social scientists do not use observation and interview data due to its subjective nature. This type of data is generally preferred by interpretive and critical scholars.

A third type of data is self-report data. A self-report asks individuals to report about their own behaviors. Typically, this kind of data is quantitative in nature, but may be qualitative. Quantitative self-reports are usually closed-ended surveys, such as "on a scale of 1–7, with 1 being *strongly agree*, and 7 being *strongly disagree,* please rate how much you agree with the following statements." You have all seen such questions on a survey before. Qualitative self-reports can include open-ended questions on a survey. For example, you may be asked to "describe how you felt about Candidate X after watching the debate." The question is asking you to self-report on your feelings about Candidate X. Self-reports are often used in communication research. Self-report data collected in a survey form is a preferred approach for many social scientists. Some statistical problems can emerge, of course, when analyzing self-report data. For example, some scholars argue that people taking surveys tend to over- or under-estimate their behaviors. For example, Nicotera (1996) stated that individuals are likely to under-estimate their true level of argumentativeness, and instead score themselves lower to be more socially desirable, otherwise known as the social desirability bias. Croucher, Kassing, and Diers-Lawson (2013) found a minor statistical difference between our self-reporting and how others report our level of dissent in organizations (less than people had thought). Thus, aside from a handful of studies suggesting that people tend to over- or under-estimate their own behaviors, self-reports appear to be a reliable and valid form of measurement. Fears around self-reporting and the social desirability bias might be overblown.

An other-report can be used in conjunction with self-reports to uncover how a communicative act affects a

person, or to compare the results of a self-versus-other perception. Other-reports ask individuals to report on the communicative behavior of another person. In conjunction with self-reports, other-reports can help verify a result. Imagine that you are a marriage counselor working with a couple who has problems with jealousy. You may decide to measure each person's self-report of jealousy and to get an other-report of jealousy. You can then combine the results to get a mean (average) score of jealousy for each partner in the relationship. A second option is to design a questionnaire asking each partner how the other person's behavior affects them. In this case you are measuring how the other person's behavior affects the receiver of the behavior. Third, you could give the wife a self-report of jealous behaviors, the husband (sexual intimate of the wife) an other-report of jealous behaviors the wife enacts, and a friend (non-sexual) of theirs an other-report of the wife's behaviors, then compare the results to see if the wife over- or under-estimates her behaviors compared to the other two. The third approach can be useful to see if people really do know their own behaviors, or how others perceive them (Croucher et al., 2013; Spitzberg & Hecht, 1984).

> Let's go back to *The Matrix*. You can analyze this film in many ways. Maiorani (2007), for example, analyzes the grammar and visual design of the promotional posters and showed how the posters promoted different kinds of messages based on the social impact of each film. Milford (2010) discusses how evangelical Christian audiences in the U.S. responded to the films. Milford described the allegory (rhetoric) surrounding the films. Frentz and Rushing (2002) critique the film as having a diluted narrative because of its use of special effects, which negate the influence of the feminine. In each example of published research, a different aspect of the film or materials surrounding it was analyzed.

Now that we have gone through the four basic kinds of data, the next section describes data sampling.

Data Sampling

Collecting and analyzing all the available evidence when conducting research is not always possible. Let's imagine, for example, that you are interested in the relationship between the amount of self-disclosure and length of dating among college students in New Zealand. However, surveying every college student in New Zealand is virtually (if not totally) impossible. New Zealand college students is your population, or the group of cases or units from which you want to collect data. What you need to do is survey a sample of college students in New Zealand. Essentially, when we sample, we analyze a smaller group (sample) we have taken out of a larger group (population) in order to make claims about the larger group (the population). Remember that your sample population can provide a wide range of data: textual data, observations and/or interview data, self-report data, or other-report data. Many descriptions of samples and populations focus on self-report data, but other forms of data are available.

For social scientific (mainly quantitative) researchers, the purpose of sampling is to create an objective sample that best represents the population so they can make generalizations about the population from the sample. The generalizations are inferences about the behavior of the population you make from studying the sample (usually statistical for a social scientist). For interpretive, critical, and rhetorical researchers, generalization is not an important issue to consider, as these scholars focus more on subjectivity (think back to Chapters 3 and 4).

Inferences (generalizations) are possible from a sample of a population because of the Central Limit Theorem. The Central Limit Theorem states the following. First, under normal conditions, data taken from larger samples will tend to be more normally distributed. Second, as more and more samples are taken from a population, you have a greater chance that your sample represents the population. Third, random selection is the best way for a sample to represent the population. Fourth, if you are unable to get a random and/or a large sample you must ascertain the amount of error present in your sample. Based on the Central Limit Theorem, and sound methods, we can generalize our findings. Generalizability is the degree to which we can extend our findings, results, or conclusions from the sample to the population. We will talk more about the Central Limit Theorem and its tenets in Chapter 7, where we discuss hypotheses and research questions. For now, it is important to note that the tenets behind the Central Limit Theorem provide mathematical laws for generalizing from a sample to a population.

We see a classic example of population and sampling every four years in election-night polling. Many Americans are glued to their televisions and computers watching election results come in and waiting for races to be called for their local, state, and national candidates. Many students have asked us both how a network can call a

state for a candidate before all of the votes are counted. The answer is simple—sampling. None of the networks have the entire voting population counted, but they have large enough samples counted to make a generalization (in this case a prediction) about who will win. These samples include the number of votes already counted, exit polls, and other forms of polling. Election-night sampling is an intricate process, and does not always work. In 2000 the major television networks called the state of Florida for U.S. Presidential candidate Al Gore. However, the margin of victory at the time was very slim. The networks had to reverse the calls when it looked like the Gore victory was not a "done deal." In the end, George W. Bush (who became the 43rd president of the U.S.) won the state of Florida after a long legal battle. All in all, social scientists, and media networks, work hard to avoid the problems that occurred in the 2000 election in Florida.

Data sampling should be a systematic process, whether you are doing a quantitative or qualitative study. After you have chosen your topic of study and defined your data population, you need to consider whether it would be better to use a random or non-random sampling procedure. Random sampling is the selection of data in a way that ensures that everyone or everything that is part of your data has an equal chance of participation in your study. Random sampling increases your ability to generalize to the overall population. Non-random sampling, on the other hand, means that not everyone or everything that is part of your data has an equal chance of participation. Therefore, your ability to generalize to the population decreases. We argue that random sampling (specifically simple random sampling) is virtually impossible in most cases. Here is an example, though, of how you could do a random sample.

> Let's say your university wants to find out if students on campus prefer *The Last Jedi* or *The Force Awakens* (FYI, Dan and Stephen are big *Star Wars* fans). The university has access to the names and contact information of every registered student. A person from the university, let's say Institutional Research, could e-mail every student's official e-mail account with a survey. In this research project, every registered student has an equal chance of participating in this study of movie preference. It is extremely difficult to get access to such a list, as such lists often do not exist for many populations, and some populations are just too large for a list. So, in many ways, simple random sampling is impractical, but still theoretically possible. In the case of this hypothetical study, if you have the chance to reach *every registered* student, you can *honestly* say you have conducted a *random* study on *Star Wars* movie preference.

As random sampling is virtually impossible, and for other reasons, outlined below, researchers commonly use four kinds of non-random sampling procedures: convenience, snowball, purposive, and quota sampling. You may use non-random sampling for a number of reasons. A convenience sample is used when your data is easily accessible. For example, many quantitative studies published in communication studies journals have been conducted using surveys of undergraduate communication majors. You may have, in fact, participated in such a research project for a professor on your campus. Data from convenience samples are easy to collect and generally fairly cheap. Unlike trying to collect random data, which we will talk about shortly, you generally do not need to pay for access to population databases. However, convenience samples have some disadvantages. First, convenience sampling is not random and tends to produce *relatively* non-generalizable results. Second, some researchers may pick specific people or data samples to further their research agenda. That is to say, they "cherry-pick" their data. Focusing only on college students as representative of the U.S. population, for example, has received quite a bit of criticism, but college students are rather convenient research participants.

Snowball sampling is particularly relevant to interview data and is similar to convenience sampling. Snowballing can occur when the researcher meets with the first interviewee and the interviewee suggests a second participant. The second interviewee then recommends a third person, and so forth. The sample builds based on participant recommendations. Smith, Coffelt, Rives, and Sollitto (2012) use snowball sampling to interview 29 people in Western Kentucky regarding their sense-making (response) to a natural disaster, in this case a massive ice storm. Snowball samples generally start out of convenience, so the same advantages and disadvantages of convenience samples hold for snowball samples. An additional disadvantage can be the lack of diversity in the final sample set. For instance, the group of recommended individuals may share common characteristics and lack diversity, thus not resembling the overall population (after all, each interviewee generally knows the person they are recommending as a participant).

Purposive sampling focuses the study on specific groups at the exclusion of other groups. Let's say you are

interested in studying the verbal aggressiveness of rugby players. You would only sample rugby players, and not other athletes, and thus you exclude other kinds of athletes from your sampling. For example, Kluever Romo and Donovan-Kicken (2012) interviewed 20 vegetarians to uncover communicative dilemmas faced by vegetarians and ways these individuals discuss their lifestyle with others. By focusing solely on vegetarians as their target group, they purposefully excluded individuals who were not vegetarians. The authors located their interviewees using "an online posting on the listservs of two local vegetarian networking groups and through snowball sampling" (Kluever Romo & Donovan-Kicken, 2012, p. 409).

The final kind of non-random sampling is quota sampling. Quota sampling is used when you, as the researcher, pre-determine categories and how much data you want in each category. You then collect just enough data to fill each category. In this kind of sampling you may decide that you only want to interview or survey 50 smokers about how self-disclosure takes place while smoking in a group. With this kind of study design, you have already determined your group, smokers, and determined the number of smokers to survey, 50. McMahon, McAlaney, and Edgar (2007) used a quota sample to interview a set number of individuals in different age categories about their feelings on binge drinking.

Three kinds of random-sampling methods are available: simple, systematic, and stratified. Simple-random sampling is a procedure in which every case in a population has an equal chance of being included in the sample. For instance, say you are interested in securing a random sample of all registered voters in Miami-Dade County (you want to study how political opinions may influence the next election in a swing state like Florida). The board has registered voter information on file, but they may be hesitant to provide the list to just anyone (we will talk about this practical aspect shortly). If you had the list, you could generate a representative sample population of registered voters in Miami-Dade County. You could then survey a sample of the voters about their presidential choice. Since you are working from the official list of registered voters, you have a simple-random sample.

A systematic sample takes a simple-random sample a step further. In systematic sampling, you randomly choose a starting point in your data and then carefully include every *n*th data point. For example, imagine you are working with the voter list for Miami-Dade County. You start with the fifth name on the list and then mail a survey to every fourth person on the list. All research method texts say the same thing (including the method textbook you are reading right now): a systematic sample and a simple-random sample are more than likely going to produce similar results.

In a stratified sampling strategy, you first identify mutually exclusive categories or groups. Mutually exclusive means an item can appear in only one category or group. Most professional athletes play in only one pro sport—they are mutually exclusive to the one sport (in fact, contracts for most pro athletes prohibit them from playing in multiple sports, professionally or recreationally). However, many high school athletes play in multiple sports—they are *not* mutually exclusive.

Once you have identified your categories or groups, you divide your sample into the categories or groups, and then use random selection to select cases or units from each category or group. For voters in Miami-Dade County, you may want to compare men and women and how they will vote in the next presidential election (men and women are mutually exclusive categories since someone cannot be both a man and a woman at the same time). So, you divide the population into men and women and then randomly select men and women to receive your survey (you will need to decide if your selection process is simple-random sampling or systematic sampling). The act of dividing men from women stratifies your sample.

Random sampling is statistically preferred for generalizability, as it protects our research more from error (we talk more about error in Chapter 7). However, in many cases you may find it difficult to get a random sample. Getting a random sample may be problematic for the following reasons. First, random samples are expensive, which we have already talked about a little bit. Depending on the population or type of data in which you are interested, the cost may be prohibitive for buying a list of individuals or other types of data. Second, negotiating with individuals or groups who may hold access to lists of populations can be time-consuming, particularly when working with humans as your population. Third, sometimes a random sample may be theoretically and/or methodologically impossible. In much of Stephen's work he has been interested in researching how immigrants adapt to a new culture, like in the U.S., France, Finland or Germany. These governments do not have lists of *every* Muslim immigrant within their borders. Thus, a complete list for generating a random sample of Muslim immigrants in these countries is impossible. Fourth, for the interpretive and critical paradigms, generalizability is not of paramount concern. Thus, random sampling is not really an issue. Fifth, your research may adapt based on

your findings. If you are conducting an interpretive or critical study, your findings may emerge as you conduct your work. In these cases, random sampling may not work, as you need to be able to identify sources of data and be flexible to change. See Figure 5.1 for a description of the strengths and weaknesses of each of the random and non-random sampling methods.

Figure 5.1 Advantages and Disadvantages of Sampling Techniques

Sampling Method	Advantages	Disadvantages
Simple random	Most generalizable of all methods.	Hard to do without full list of population. Can be expensive and time-consuming.
Systematic random	Also generalizable. Can be less time-consuming and less expensive than simple random.	What starting point do you choose? Still need a list of the population. More expensive and time-consuming than non-random methods.
Stratified random	Can be sure specific groups are included by selecting them from the population list. Don't forget, since it's random you have more generalizability.	More complex random method. You must carefully define the groups. Still more expensive and time-consuming than non-random methods.
Convenience	Inexpensive and easiest way to collect data in general.	Can often be very unrepresentative, not generalizable to the population.
Snowball	Can more easily include members of groups not on lists or people who would not be easily accessible.	How do you know if the sample represents the population? This goes back to a lack of generalizability.
Purposive	Can ensure balance of group sizes when many groups are included.	How do you know if the sample represents the population? This goes back to a lack of generalizability. Research bias and subjectivity can also be issues.
Quota	Can ensure the selection of appropriate numbers of subjects with appropriate characteristics.	How do you know if the sample represents the population? Again, a lack of generalizability.

You now have an understanding of the different kinds of data you can collect, and the importance of considering the kinds of samples you can collect. The next section of this chapter briefly discusses the three main places where data collection can take place.

In Maiorani's (2007) analysis of *The Matrix* movie posters, the author did not do a systematic analysis of all movie posters produced to advertise the film. Instead, Maiorani chose posters she thought were the most "important." In this case, her sample is a purposive sample of *The Matrix* movie posters. Hamming (2008) similarly conducted a purposive sample when she considered similarities between *The Matrix* and other films that were released in the 1990s on their depictions of masculinity, femininity, post-industrial society, and a reconnection with the natural world.

Data Collection Settings

Data collection will usually take place in one of three locations: an archive, the field, or the lab. Where data collection takes place depends on the type of data you are gathering. Archival research refers to conducting research in a variety of places including the Internet, a library, a physical archive (many historical archives are available around the world on a variety of subjects), a local town hall of records—basically any place records and documents are stored. The key with archival research is the action of going to a location where you can search for the texts you are interested in analyzing. In the Internet Age, archival research has become easier in many ways, as much of our data (texts) are now online. However, we encourage you, if you are interested in texts, to go to a

physical archive and dig into the physical documents. Such an endeavor can be a rewarding experience.

The field is where communication takes place. Conducting field research means that you go out and interview or observe people in their natural habitats. Capous-Desyllas and Johnson-Rhodes (2018) went out into the field and met with participants in their natural habitats to better learn about their identities and behaviors. In this study, the authors met with and observed various gay rodeo participants to understand how participation in these rodeos influences their identities and the meanings they give to this participation. In doing such research, you take risks. Often, you will be out of your comfort zone as you may not be in your own habitat. You will have to adapt to the environment you are in while conducting your research. Participants, particularly in interpretive and critical studies, are generally more comfortable participating in research when they are in the field, as they are on their own "turf." In much of the research conducted today, researchers conduct online surveys using programs like SurveyMonkey or Qualtrics. Thus, researchers are able to send surveys and interview questions out to people via the web and social media. This is a kind of fieldwork that could be considered the "field." We will come back to research in the field in Chapters 8 (Ethnography) and 9 (Interviewing).

The lab, on the other hand, allows you, as the researcher, to control the setting (environment) in which the study takes place. The lab in this case does not mean a place with science equipment. In lab situations, the research is typically conducted on a college campus, or in a room at a business or organization where the researcher can control access to the research room (lab), the physical set-up of the room, and any other elements they want. A lab setting is a chance for you as the researcher to control many aspects of the data-collection setting, unlike the field, where you are at the whim of the environment. If any of you have participated in a study sponsored by your communication department that has taken place in your building, it took place in a lab setting. Such a setting is often used by social scientists collecting surveys (Chapters 15), or conducting focus groups (Chapter 10).

> Most researchers studying *The Matrix* can easily find their data online (archival research). If a researcher wanted to expand their understanding of *The Matrix* and possibly look at how the film's depictions of violence relates to teens, the scholar could conduct a study using human subjects. Such a study would be best conducted in the lab with participants watching the films and then filling out surveys. A lot of research in media studies explores the relationship (or lack thereof) between violence in film and violence in real life. Such a study could further that line of research.

Levels of Measurement & Types of Variables

So, now that you have a grasp of the kinds of data you can use, how to sample data, and where to get your data, the next important question to consider is how to define some key terms in your study. The terms we use in our study are important. We need to make sure we are clear in how we define our terms to the reader. Specifically, you should take great care to ensure you have offered concise conceptual and operational definitions of what you want to study before you analyze the data. When you are doing a study, you will need to provide a conceptual definition of the key terms you are studying or testing. Conceptual definitions are similar to dictionary definitions of a term. These definitions are based on previous research and used to create an agreed-upon definition for a concept that the author(s) use(s) in his, her, or their study. For example, Zarrinabadi's (2012) study explores self-perceived communication competence (SPCC) in Iran. In the study, Zarrinabadi provided a review of literature that defined self-perceived communication competence with a variety of references. This conceptual definition of SPCC makes it clear to the reader exactly what Zarrinabadi is studying. Second, you must define to readers how you plan to measure or observe the concept. The purpose of collecting data is to observe, describe, evaluate, or critique a concept. Therefore, you must be clear in your operationalization—how you link your concepts to your method. Operational definitions are explanations of the methods, procedures, variables, and instruments you use to measure your concepts. These definitions are, in essence, the "rules" researchers give themselves for identifying, analyzing, or measuring concepts. Zarrinabadi (2012) conducts a quantitative analysis of SPCC using McCroskey and McCroskey's (1988) SPCC instrument. The instrument is a 12-item survey for measuring SPCC with each item ranging from 0 *(completely incompetent)* to 100 *(competent).* The key is to be clear in your description of your procedures: what method did you use, and why did you use the chosen method? If your method comes from another source, cite it. We talk more about how to select from various methods in Chapters 8–20.

The next few pages focus primarily on operationalization in the social sciences. Knowing these terms is important since they can be used in all research paradigms, appear in many journal articles and books, and are fundamental to your basic understanding of the research process. Variables can be measured on four levels: nominal, ordinal, interval, and ratio. Nominaland ordinal-level measurements produce categorical-level data, which is something social scientists, interpretivists, and critical scholars all use. Interval- and ratio-level measurements produce continuous data, which are *typically* only used by social scientists. We will now dig a little deeper into each type of measurement.

Nominal variables (or data) are the least precise, and the lowest level of measurement. Data are placed into separate mutually exclusive categories. A classic example of a nominal variable is biological sex (male or female). When an individual on a survey is asked to choose their biological sex, they are often given the choice of male or female. Nominal variables are mutually exclusive categories (categories that do not overlap). Basic demographic questions are nominal data.

Ordinal variables (or data) are rank ordered. Ordinal variables share the same characteristics as nominal variables, the categories can also be ranked in some way: highest/lowest, least/most, best/worse, etc. An example of ordinal data is a starred review of a movie. A movie can generally get 1 to 5 stars. What is the difference, though, between a movie that gets 3 and 4 stars and its overall quality? The problem with ordinal data is that we can't really measure the difference between the stars, we just know that a movie with 4 stars was ranked better by the critics than a movie that got 3 stars. But how much more did the critics really like it?

Interval variables (or data) identify a measurable difference between categories and ranks. While an ordinal scale of measurement (like a grading scale) dictates a difference between levels, the difference between 3 and 4 stars is not 100% clear. Critics set different standards for what is required to earn stars. Interval-level measurements allow us to tell the exact distance between data points. Social scientific research (including communication research) uses two main kinds of interval-level scales: Likert scales, and semantic differential scales. Most of you have seen a Likert scale before. A Likert scale is involved in a form of questioning where indivIduals are provided with a list of statements that range from "strongly disagree" to "strongly agree." See the following box, Organizational Dissent Scale, for a typical Likert scale. The example is part of the shortened Organizational Dissent Scale (Kassing, 2000). The ODS is an interval scale measuring an individual's tendency to express dissent in an organization. Scales that have similar items such as "almost never true" to "almost always true" are technically considered Likert-like scales.

A semantic differential indirectly measures thoughts, feelings, or perceptions people have about things using a list of polar opposite adjectives or adverbs. Research participants are asked to indicate their feelings by marking a space between one of the opposing adjectives or adverbs. See the following box, Perceived Message Sensation Value (PMSV) Scale, for a semantic differential scale. We will talk more about how to design and use these kinds of surveys in Chapter 15 on Surveys. Palmgreen, Stephenson, Everett, Baseheart, and Francies (2002) provide an example of a semantic differential scale. The scale measures an individual's message sensation and response to messages (advertisements, etc.).

Organizational Dissent Scale (Kassing, 2000) 18-item version

(We are only including the first six items as an example of a Likert scale)

Instructions: This is a series of statements about how people express their concerns about work. There are no right or wrong answers. Some of the items may sound similar, but they pertain to slightly different issues. Please respond to all items. Considering how you express your concerns at work, indicate your degree of agreement with each statement by placing the appropriate number in the blank to the right of each item.

1 = strongly disagree 2 = disagree
3 = agree some and disagree some 4 = agree 5 = strongly agree

1. I am hesitant to raise questions or contradictory opinions in my organization. —
2. I complain about things in my organization with other employees. —
3. I criticize inefficiency in this organization in front of everyone. —
4. I do not question management. —
5. I'm hesitant to question workplace policies. —

6. I join in when other employees complain about organizational changes. —

Perceived Message Sensation Value (PMSV) Scale (Palmgreen et al., 2002) 17-item scale

(We are including the first six items only)

Instructions: We would like you to rate the public service announcement (ad, message) you just saw on the following scales. For example, on the first pair of adjectives if you thought the ad was very *unique,* give a "1." If you thought it was very *common,* give it a "7." If you thought it was somewhere in between, give it a 2, 3, 4, 5, or 6.

1. Unique	1	2	3	4	5	6	7	Common
2. Powerful impact	1	2	3	4	5	6	7	Weak impact
3. Didn't give me goose bumps	1	2	3	4	5	6	7	Gave me goose bumps
4. Novel	1	2	3	4	5	6	7	Unemotional
5. Emotional	1	2	3	4	5	6	7	Exciting
6. Boring	1	2	3	4	5	6	7	Weak visuals

For now, there are two key things to understand. First, the scales tap distinct differences between the values. For example, when an individual circles 4 on a scale of 1–5, the researcher has a measurable difference between 1 to 2, 2 to 3, 3 to 4, and 4 to 5. We can do more advanced statistical analyses based on how participants respond to these kinds of scales. Second, interval scales do not have an absolute zero or a complete absence of something. For example, a participant could not score a zero on an IQ test.

A ratio variable (data) does the same as an interval variable, except that it has a zero point. The presence of a zero point makes it possible to declare relationships in terms of ratios or proportions. For example, you can have $0 in your bank account, you can have zero sexual partners, you may have visited zero overseas nations, or spent zero days in jail. A variable ratio must include a zero for participants to respond.

Researchers from various paradigms prefer to use different kinds of variables. Social scientists will use all the levels of variables. Interpretive and critical scholars will rarely use interval- and/or ratio-level variables, as these variables lend themselves to higher-level statistical analysis and thus to things like generalization.

Let's go back to our research question linking media violence and real violence. You could approach this study in lots of ways. First, you need to conceptualize your terms. How do you define "media"? What counts as "violence"? The questions may sound simple, but you need to make sure the reader is on the same page as you. Second, in order to operationalize the study, you must ask, "how are you going to measure the relationship between media violence and real violence?" Basically, what is your data? What variables are you going to use? Someone like Stephen, who is a social scientist, is inclined to use a survey measuring self-reports about the media and how people perceive its effects. In this kind of survey, Stephen would start with demographic questions (nominal and maybe ordinal data), and then include a collection of interval and/or ratio scales to measure people's perceptions and/or beliefs about the relationship between media violence and real violence. Stephen would operationalize the constructs through a combination of levels of measurement.

Summary

In Chapter 5 we discussed the various aspects of "data." Data is information collected in a systematic manner. We described various sampling techniques. We also identified the different places where you can collect data. The chapter also defined the different levels of measurement. It is imperative to know what "counts" as data, how it can be measured, and what is "good" data. This dialogue continues in Chapter 6 on Evaluating Research.

Key Steps & Questions to Consider

1. Data is information collected in a systematic manner.
2. Data can include texts, observations, interviews, self-reports, and other-reports.
3. Texts are written, spoken, performed, or symbolic messages.
4. Observations are made when you watch human behavior in action.
5. A self-report asks people to report about their own behaviors, while an other-report asks someone to report about another person.
6. Data sampling involves analyzing a sample we have taken out of a population to make claims about the population.
7. Generalizations are inferences about the behavior of the population you make from studying the sample.
8. The four kinds of non-random sampling procedures commonly used by researchers are: convenience, snowball, purposive, and quota sampling.
9. The three kinds of random sampling methods are: simple, systematic, and stratified.
10. The three data collection locations are: an archive, the field, or the lab.
11. A conceptual definition defines your term as in a dictionary or in a scholarly way, while an operational definition defines how we measure our terms methodologically.
12. The four levels of measurement are: nominal, ordinal, interval, and ratio. Remember that nominal and ordinal measurements focus on categories, while interval and ratio measurements focus on continuous data.
13. Likert scales and semantic differential scales are commonly used to collect interval level data.

Activities

1. Many of you will be familiar with the concept of letter grades (A, B, C, etc.). Develop a survey you can distribute to collect data to answer the research question "How do students talk about grades?" or "How do faculty talk about grades?" Remember to determine the type of data, population samples, the data collection methods, levels of measurements, and scales you will use.
2. A number of free online survey tools are available. Try prepping your survey from Activity #1 as an online tool, such as www.SurveyMonkey.com, https://kwiksurveys.com, and google-forms (just go to googledocs [https://docs.google.com] and create a new form). Your instructor may know other survey tools or have a favorite!
3. Distribute your survey. Remember, you will need to follow the research protocols you set for population sampling! What insights can you infer from the data you collected?

Discussion Questions

1. Visit the United States Census Bureau at https://www.census.gov/programs-surveys.html. The Bureau conducts demographic and economic surveys (you will find dozens of surveys across a wide variety of interest areas). Explore a number of the surveys and identify the type of data, population samples, the data collection methods, levels of measurements, and scales used.
2. The American Association of Retired Persons (AARP) also conducts extensive data collection. You can find the AARP surveys at http://www.aarp.org/research/surveys/. Pick a few surveys and explore the same issues—the type of data collected, population samples, the data collection methods, levels of measurements, and scales. Can you identify any differences between the U.S. Census Bureau and AARP approaches to data collection and analysis?

Key Terms

Archival Research
Central Limit Theorem
Conceptual Definition
Convenience Sample

Data
Field
Generalizability
Generalizations
Interval
Lab
Likert Scales
Nominal
Non-Random Sampling
Observations
Operational Definition
Ordinal
Other-Reports
Population
Purposive Sampling
Quota Sampling
Random Sampling
Ratio
Sample
Self-Report
Semantic Differential
Simple-Random Sampling
Snowball Sampling
Stratified Sampling
Systematic Sampling
Texts

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6 Evaluating Research – Warrants

Chapter Outline

What Will I Learn About Evaluating Research?

We evaluate almost everything. Many of you are students in university departments that have accreditations. These accreditations are essentially certificates that declare that your programs have met a litany of standards set forth by a governing body of some kind. These governing bodies are set up by a variety of academic, business, and governmental associations and companies. To get such accreditations, a department has to submit an application that is evaluated. Both Dan and Stephen have gone through these processes at different universities, and can attest to how time-consuming the process can be. However, such "stamps of approval" are beneficial for departments and universities because they show that the programs are doing something right, that the programs are meeting some standard(s) that are being critiqued by independent bodies. The statement that we are a reliable investment, academically speaking, from an accreditation agency, carries a lot of weight in some circles, and can indeed make us feel good.

What does it mean to be reliable? We address this question and many others in this chapter. Researchers strive for reliable methods and results; however, the definition of "reliable" differs considerably depending on a researcher's paradigm (social scientific, interpretive, and/or critical/cultural). Along with having reliable method and results, issues of validity enter the discussion for many researchers. You may be pondering the following questions: 1) what is reliability, 2) what is validity, 3) how do the two concepts relate to one another, and 4) how do the different paradigms approach these concepts? Some of the concepts we discuss in this chapter may sound familiar from previous chapters, but a little repetition can help solidify your understanding. We explore these questions and other aspects of evaluating research. We approach the questions under the umbrella of research warrants. Warrants are assurances of results. In the case of research, warrants allow scholars to state how their data or evidence reliably supports their arguments or claims. You will learn about the different ways in which researchers evaluate or determine what is "good" research.

Warrants for Evaluating Social Scientific Research

You may remember from Chapter 2 on the social scientific paradigm that social scientists take a rationalist

approach to research, emphasizing things like empiricism and rationalism. When evaluating "good research," social scientists focus on the warrants of precision, power, parsimony, reliability, and validity. Some social scientists focus heavily on cause and effect, the idea being that X causes a change in Y.

Precision is how accurate you are at measuring your variables. When a measurement is precise, we know exactly what it is, and what it is not. People can agree on a precise measurement. For example, Stephen and his spouse live in New Zealand. Before moving there in 2017, the two discussed how far away the country was from everything, except Australia. They measured the flight time in hours from New Zealand to major airline hubs like Singapore, Tokyo and Seoul (9–12 hours), Los Angeles, San Francisco, and Houston (12–14 hours), and Dubai and Doha (16–18 hours). Both understand how long an hour is mathematically. While both were able to agree on how to measure the length of the flights, they disagreed on how to evaluate what 9–18 hours would feel like on one flight. One passenger is 5-foot 9-inches and the other is 6-foot 5-inches. The 5-foot 9-inches passenger is much more comfortable in an airplane. Thus, even though they can agree on a precise measurement of the length of the flight (hours), there remains room for disagreement on how those 9–18 hours feel.

Power is a multi-faceted concept. Conceptual power is the notion that definitions are powerful when they provide broad and/or detailed insight about a concept instead of niche or specific detail about small concepts. Methodological power is reflected in data-selection procedures that are as representative of the population as possible, as such samples allow for more powerful generalizations.

Parsimony is the combination of power and precision. A goal of research for social scientists is to be as detailed as possible (i.e., to cover a broad range of issues), in a succinct way. Researchers strive to use the most powerful and appropriate method(s) for a study. Often researchers may use a variety of advanced statistical analyses to answer research questions.

Reliability, particularly measurement reliability, is an essential warrant to claiming that social scientific research is "good." Your instrument should perform the same way over time and is the essence of reliability; a measurement used in 2009 should perform the same way in 2018. Think of reliability like the clock on your cell phone (since many of you do not use watches anymore). A reliable clock will tell you the precise time, while an unreliable one will tell you it's 4:02 pm when it's really 4:05 pm. Which one do you want? We want the one that correctly tells time.

Unfortunately, our measurements are never 100% reliable in research. A little bit of error is always involved in our measurements of human behavior. We talk more about error in Chapter 7 on Hypotheses and Research Questions. For now, we want to point out some important points about error. Measurement errors are called noise or threats to reliability. Three main causes are linked to measurement errors: 1) errors in data entry, 2) instrument confusion, and 3) random human differences. First, humans can make mistakes when entering surveys into a computer program. Stephen often has his research teams enter thousands of surveys into a computer program every year and a survey may be multiple pages long. After data entry, the team goes through and double checks to make sure they did not key in any incorrect numbers. If you consider they have entered more than a million numbers, it is likely they have entered some incorrect data. For example, instead of entering a 3, they may have keyed in a 4. The hope is they have limited the number of mistakes.

Second, as hard as researchers try, some surveys are not effective. Instructions may not be clear or questions may be worded in ways that confuse or even irritate people. In these cases, the instrument itself can cause a threat to reliability.

Third, humans complete surveys. Human beings are not perfect; as such, their completion of surveys is not perfect. Stephen and his team have seen participants skip pages resulting in incomplete surveys. People's moods can affect how they answer questions. Finally, some people will agree to answer questions yet, when they do the survey, they do not take it seriously, randomly answer questions, or select 3 (on a scale of 1 to 5) for every response.

With a basic understanding of error and reliability, the next section defines four ways to determine measurement reliability: 1) intercoder reliability, 2) alternate forms, 3) test-retest, and 4) internal consistency. Intercoder reliability is a statistical analysis of how similar or different coders are in coding data. Neuendorf (2002) states that intercoder reliability is a "necessary criterion for valid and useful research when human coding is employed" (p. 142). Various statistical measures are available to evaluate intercoder reliability: percent agreement (a basic measure), Cohen's *kappa* (κ), Spearman's rho, Pearson's correlation (r), and Krippendorf's *alpha.* For more information on these measures see Neuendorf (2002) or Popping (1988). In most cases, your reliabilities

should be above .75.

Alternate forms refers to the use of two or more instruments to measure the same construct or trait. The objective is to determine the equivalence or similarity of the scores for the participants. For example, instead of giving a participant one measure of introversion (shyness), give them two measures of introversion. With two measures we can: 1) better understand the introversion of the participants, and 2) assert that the measures are reliable measures of the same construct if the results are similar on both tests.

The test-retest method for measuring reliability involves giving the same measure(s) to participants at multiple points in time. You are measuring the similarity and stability of results at different points in time. Significant changes in people's scores on a measure may indicate that something has happened since the last time they answered the questions. Often communication traits like communication apprehension do not change much in our lives. While we may become more comfortable communicating, our basic level of apprehension does not decrease all that much. Thus, if you develop your own measure of apprehension and the scores change dramatically for participants from point 1 to point 2, you may have a problem with the scale. Think back to the basic definition of measurement reliability—an instrument should perform the same way over time. The test-retest method is a good way to establish measurement reliability.

The final way to establish reliability is by measuring internal consistency (sometimes called homogeneity). Internal consistency means that the items in the measure have generally consistent responses from participants. If you look to Infante and Rancer's Argumentativeness Scale (1982) in the following box you see 20 items. Ten of these items measure how likely someone is to approach arguments, while the other ten measure likelihood to avoid an argument. The ten approach items and the ten avoid items are each answered similarly. Respondents answering the questions in similar ways shows internal consistency.

Argumentativeness Scale – Infante and Rancer (1982)

The questions listed below refer to when you argue about controversial issues. Indicate how often each statement is true for you personally by placing the appropriate number in the blank to the left of each item based on the 5-point scale. Remember, consider each item in terms of arguing controversial issues.

1 = Almost Never True 2 = Rarely True 3 = Occasionally True
4 = Often True 5 = Almost Always True

1. While in an argument, I worry the person I am arguing with will form a negative impression of me. —
2. Arguing over controversial issues improves my intelligence. —
3. I enjoy avoiding arguments. —
4. I am energetic and enthusiastic when I argue. —
5. Once I finish an argument I promise myself I will not get into another. —
6. Arguing with a person creates more problems for me than it solves. —
7. I have a pleasant, good feeling when I win a point in an argument. —
8. When I finish arguing with someone I feel nervous and upset. —
9. I enjoy a good argument over a controversial issue. —
10. I get an unpleasant feeling when I realize I am about to get into an argument. —
11. I enjoy defending my point of view on an issue. —
12. I am happy when I keep an argument from happening. —
13. I do not like to miss the opportunity to argue a controversial issue. —
14. I prefer being with people who rarely disagree with me. —
15. I consider an argument an exciting intellectual challenge. —
16. I find myself unable to think of effective points during an argument. —
17. I feel refreshed and satisfied after an argument on a controversial issue. —
18. I have the ability to do well in an argument. —
19. I try to avoid getting into arguments. —
20. I feel excitement when I expect a conversation I am in is leading to an argument. —

Validity is the final key warrant for social scientists when evaluating what is "good" research. When using measures, such as surveys, social scientists are interested in the extent to which the test measures what is it supposed to measure (Mason & Bramble, 1989). This is validity. There are three kinds of validity: content, construct, and criterion-related validity.

Content validity is the degree to which a scale, measure, and/or instrument measures *all* aspects of a behavior, trait or state (Schilling, Dixon, Knafl, Grey, Ives, & Lynn, 2007). For example, a researcher claims to have developed a measure of communication apprehension. However, the scale does not include any items regarding communication in interpersonal settings. The scale only includes communication in group, public, and meeting settings. While the scale will measure apprehension in a variety of settings, it will not adequately assess apprehension because it lacks measures of apprehension in interpersonal contexts. Thus, this particular scale is limited and has low content validity. To determine the level of content validity, a group of experts in the field (communication apprehension) should analyze the scale and determine whether its content is appropriate based on the communication apprehension body of literature.

Construct validity is the second type of validity. Construct validity has two important parts. First, the construct (a trait, behavior, or communicative state) must be clearly understood and defined. Second, the usefulness in measuring the construct must be established. Construct validity focuses on the extent to which the scale, measure, and/or instrument measures the theoretical construct. Let's return to our example—does the scale "really" assess communication apprehension, or do they assess willingness to communicate? The two are similar yet very different concepts. As before, bringing in a group of experts in the field is a helpful way to help assess construct validity.

The third kind of validity is criterion-related validity. A measure, scale, or instrument has criterion-related validity when it demonstrates effectiveness in predicting indicators or criterion of a construct (trait, behavior, or communicative state). Concurrent and predictive are the two kinds of criterion-related validity. Concurrent validity applies when test scores are obtained at the same time as the criterion measures. This kind of testing demonstrates that the test scores accurately measure an individual's state with regards to the criterion. For example, a self-report of communication apprehension (the test) would have concurrent validity if it could accurately measure the person's levels of apprehension (physical response and emotional response). Predictive validity applies when the criterion is measured after the test. Career, aptitude tests, and even the SAT/ACT are helpful in determining how successful people will do in specific occupations or how well they will do in college or university. We can analyze the results people get on these tests and their "success" in their jobs or in college or university to see how valid these career, aptitude, SAT, or ACT tests were.

Warrants for Evaluating Interpretive Research

While social scientists focus on things like objectivity, parsimony, precision, reliability, and validity to determine whether research is "good" or not, interpretivists use very different warrants to evaluate what is "good" research. A fundamental difference between social scientific and interpretive researchers is that social scientists strive for reliable samples that are generalizable. Interpretive researchers do not. Instead, they study smaller samples that are, for lack of a better word, in-depth analyses of how groups or case studies understand the world. For a simple and thorough set of evaluative criteria we recommend Tracy (2010). Tracy provides eight "big-tent" criteria for excellent qualitative research. We believe that these criteria (warrants) are appropriate and provide a clear understanding of how interpretive researchers evaluate research. The eight warrants for interpretive research are: 1) worthy topic, 2) rich rigor, 3) sincerity, 4) credibility, 5) resonance, 6) significant contribution, 7) ethical, and 8) meaningful coherence.

First, the topic under investigation should be a worthy topic. The topic should be interesting, significant, timely, and relevant to the discipline or society. Some topics get their relevance and interest factors because they may reveal something new or show something that researchers have overlooked about a theory or society. Stephen once had a student do her MA thesis on the portrayal of Asian musicians in European music magazines. The research showed how communication and music research has generally overlooked the portrayal of artists in the media and how the media shapes artist identity (Leppänen, 2013).

Second, steps must be taken to make sure that the research is done appropriately, this is rigor. To determine rigor, ask yourself some of the following questions (Tracy, 2010): 1) am I using the most appropriate theory or theories, 2) did I spend enough time in the field (if you collected data in the field), 3) is my sample the right size and does it provide the right data, and 4) are my data-collection and analysis techniques the correct ones for what

I am doing? We talk about methodological rigor in our qualitative method chapters.

The third warrant is sincerity. Sincerity is how genuine and vulnerable you are as a researcher. We all make mistakes when we do research, and we should share these mistakes when we do our write-ups. Your discussion of a study's limitations is imperative to your being an open and transparent researcher. Tracy (2010) encourages researchers to openly share their own experiences with their research subjects. The back-and-forth dialogue between researcher and participant will create a more open research environment.

Fourth, you should take steps to establish your credibility. Credibility is how dependable and trusted you are at conveying the realities expressed to you. You can establish credibility in various ways. We will discuss two ways: thick description and triangulation. When you spend time in the field, particularly if you are doing ethnography, you will learn things about people, groups, and cultures. Your job as the researcher is to convey the details of what you have seen to your readers in the most detailed manner possible. Geertz (1973) states that one way of doing this is by explaining contextual meanings unique to a cultural group by providing in-depth descriptions of members, activities, and symbols of the culture. An in-depth explanation is called a thick description. The richness of your description is important. A thick (rich) description will provide details to the readers of what you as the researcher experienced which the readers were unable to experience first-hand. Triangulation is another way to show credibility. Triangulation involves the use of multiple data sets, various methods, various theories, or various researchers, all to explore the same phenomenon. The basic idea is that the results of a study using triangulation are more credible because the study approaches data collection from various points. Sherlock Holmes and Dr Watson use triangulation when working together to solve mysteries. They are more successful when they combine their different approaches than when they work alone.

The fifth warrant is resonance. Resonance applies when interpretive researchers use impactful cases or quotations to impact an audience. Tracy (2010) outlines various ways that resonance could be achieved, two of which we discuss here: transferability and aesthetic merit. Transferability applies when readers are able to transfer the results of one study to another context in their life. Stephen, for example, has done research on Muslim immigrants in Europe and the U.S. (Croucher, 2008, 2009, 2009a; Croucher, Oommen, & Steele, 2009). One way to evaluate research is whether or not these findings resonate with readers' own experiences, particularly if they are immigrants themselves. If another immigrant, Muslim or not, can read the results and relate them to their own life, then the study has resonance. Aesthetic merit applies when a piece of research is artistically and imaginatively written to the point of affecting the reader(s) (Tracy, 2010). Stephen had a Professor at the University of Oklahoma, Sandra Ragan, tell him that a good piece of research is one that reads like a short story. Research should tell an interesting story, one the reader wants to keep reading. This is the essence of aesthetic merit.

As with all research (social scientific, interpretive, critical), the work needs to make some kind of significant contribution to scholarship. Tracy (2010) outlines four kinds of contributions for an interpretive study: theoretical, heuristic, methodological, and/or practical. A study does not need to make each contribution, but needs to make at least one. Research makes a theoretical contribution when the study develops, builds on, critiques, or further explains theory. A study could develop a new theoretical line of thinking. For example, Philipsen's (1976) seminal piece on Teamsterville develops codes (theories) of talk based on in-depth ethnographic work. With an heuristic contribution, a study piques the interest of readers and calls for further investigations into the same subject. Goffman's work on the presentation of self and interaction (1959, 1961) has significant heuristic merit as these works and others have inspired countless researchers to explore human encounters. Third, a study can make a methodological contribution. The study could propose a new method of inquiry, like an entirely new way of analyzing qualitative data (Hymes, 1962), or it could merge various interpretive methods not used together before (Conquergood, 1992). A methodological contribution can be made in various ways. The final kind of contribution a study can make is a practical or applied contribution. A lot of research in health communication, aside from being theoretical, has a very practical and/or applied side. Such research offers advice to medical practitioners on best practices for better health outcomes.

Seventh, the study should be conducted in an ethical manner. Look back to the section in Chapter 1 on ethics and review the basic ethical procedures present in all research projects. No matter the paradigm, informed consent, doing no harm, avoiding deception, and guaranteeing privacy and confidentiality are essential elements of a "good" project. In the method section of many studies, you will likely read how the researchers worked to ensure such issues. Eighth, the study should demonstrate coherence. Tracy (2010) defines coherence in terms of how

studies "(a) achieve their stated purpose; (b) accomplish what they espouse to be about; (c) use methods and representation practices that partner well with espoused theories and paradigms; and (d) attentively interconnect literature reviewed with research foci, methods, and findings" (p. 848). Essentially, does a study do what it set out to do and does it make sense? For example, if you are interested in exploring jealousy between sexual partners, you should make sure you are asking about "jealousy" and not about "lust," "love," or "passion." These are all very different concepts and you should be careful that you are actually measuring and exploring what you say you are. Ultimately, for interpretive scholars, a study is coherent when it demonstrates coherence for the audience by linking its methods with literature and argumentation.

All in all, interpretive researchers strive for high-quality research that can be understood by scholars. By following these eight "big tent" criteria offered by Tracy (2010), your interpretive findings can be better understood and evaluated by your readers.

Warrants for Evaluating Critical/Cultural Research

One of the key issues discussed in Chapter 4 on the Critical/Cultural Paradigm involves the emphasis this approach places on subjectivity, ideology, critique, and power. Thus, when evaluating research written from this paradigm, some of the same warrants apply as the interpretive paradigm. Critical researchers are concerned with worthy topics, rich rigor, sincerity, credibility, resonance, significant contributions, ethics, and coherence. Some important differences exist, however, between the interpretive and the critical paradigms. As we pointed out earlier, critical research is more like a moral philosophy than a research paradigm in that its principal aim is not "to provide the best description and explanation of social phenomena" but to evaluate "the freedom, justice, and happiness of societies" (Ingram & Simon-Ingram, 1992, p. xx). Thus, unlike interpretivists who are not concerned about generalizability, critical theorists attempt to draw broader conclusions about their research.

Critical theorists are often skeptical of social scientific methods of research for a number of reasons. First, critical theorists contend that social science incorrectly believes that facts exist independently of your perspective. For a Marxist, class is the key issue of discussion, while a postmodern theorist will include other aspects of a person such as race, gender, and sexuality. A critical theorist believes that positivistic social scientists, because they attempt to detach research from the material conditions of both the researcher and the subjects of the research, contribute to the alienation of society. Second, because positivistic social science tends to look for regularities (e.g., cause and effect), they may produce a sense of fatalism in readers who believe that these things are beyond their control and thus not subject to change. Third, scientific approaches to research disempower people who come to believe their conditions are the result of immutable social laws. Finally, as critical theories have argued, social scientific research has been used to support "forms of social engineering that enhance the power of those at the top —industrialists, government bureaucrats, and managers—who seek more efficient methods of controlling those at the bottom" (Ingram & Simon-Ingram, 1992, p. xxviii).

At the same time, critical theorists are not satisfied with traditional interpretive approaches to research. While interpretivists acknowledge the perspective of the research and emphasize ethical treatment of research subjects, the interpretivists' emphasis on deep understanding rather than praxis is problematic, particularly for critical theorists influenced by Marx's materialism. An over-emphasis on subjectivity means that the interpretivist is not able to evaluate communication practices. This form of moral relativism, or the belief that all moral judgments are subjective, makes it impossible to engage in the call for change that is the essence of critical theory. If everyone has his or her own moral code, we have no basis from which we can call one person oppressed and the other an oppressor. The oppressor and the oppressed are moral equals, each acting according to their own moral code.

Critical theorists are concerned with the emancipation of their research subjects and their readers. Accomplishing this task requires that they combine the objective, explanatory methods of social science with an "empathic understanding of the subjective attitudes and experiences of actual historical agents" (Ingram & Simon-Ingram, 1992, p. xxix) in order to describe conditions.

The difficulty is knowing when to think like a social scientist, when to think like an interpretivist, and when to think like a critical theorist. The Ancient Greek poet Homer told the story of Odysseus who, at one point on his epic quest, was forced to pilot his ship through a narrow strait with the sea monsters Scylla and Charybdis on either side. The straight was narrow, and in trying to avoid one monster, the ship and its crew would certainly end up in the clutches of the other. Thus, the expression "between Scylla and Charybdis" means you are caught between two dangers that it is almost impossible to avoid. Critical theorists often feel caught between Scylla and

Charybdis, always running the risk of being overly objective or being too subjective in their research. So how do we deal with this dilemma?

Reflexivity is the solution for critical theorists. Reflexivity begins with the idea that research must be accountable for itself. For example, a researcher could not conclude that no conclusions are valid. If no conclusion is valid, the conclusion "no conclusions are valid" is not valid. So, some conclusions must be valid. This kind of self-contradiction is important to critical theorists who seek to reveal contradictions within systems of thought as a way of destabilizing oppressive ideologies.

Reflexivity goes farther, however. Reflexivity is the practice of turning criticism back on itself. The critical researcher invites others to critique their own work. Critical theorists, while they hope the results of their work contribute to the emancipation of oppressed persons, do not claim to have produced a final or definitive statement but rather a statement which is itself subject to criticism. Only by turning criticism back upon itself, by critiquing the critic, can we be sure we have not been paralyzed by subjectivism or been trapped in an illusion of objectivity.

Historically, reflexivity has been productive in furthering critical theorists' hopes for liberation. Women made lasting contributions to the feminist movement by critiquing Marxism. They identified Marxism's failure to recognize their unique place within the relations of production. Likewise, oppressed people of color critiqued Marx's colorblindness. While traditional research paradigms attempt to advance our understanding, critical theorists hope to emancipate themselves, their subjects, and their readers by treating emancipation as an ongoing process and not a finished work. Finally, in a peculiar paradox, critical theorists are mindful that their own work may obscure or contribute to other forms of oppression, which other researchers should strive to illuminate.

Summary

In this chapter, we discussed how each of the three research paradigms evaluate and determine what is "good" research. Evaluating research is a critical skill as it is important for us in our everyday lives to be able to determine "good" from "poor" research. In Chapter 7 we continue this discussion as we explore Hypotheses and Research Questions.

Key Steps & Questions to Consider

1. Precision is how accurate you are at measuring your variables.
2. Powerful conceptual definitions should provide more detail about a concept. Methodological power applies when data selection procedures are as representative of the population as possible.
3. Parsimony is the combination of power and precision.
4. A key difference between social scientists and interpretivists is that social scientists want generalizable samples. Interpretive researchers instead use smaller samples that help them produce in-depth analyses of how groups or case studies understand the world.
5. Reliability is the requirement that a measurement perform the same way over time.
6. There are three main threats to reliability: 1) errors in data entry, 2) instrument confusion, and 3) random human differences.
7. There are four ways to determine measurement reliability: 1) intercoder reliability, 2) alternate forms, 3) test-retest, and 4) internal consistency.
8. The extent to which the test, measure, survey, or instrument measures what it is supposed to measure is validity.
9. There are three kinds of validity: content, construct, and criterion-related validity.
10. The eight criteria for "good" interpretive research are: worthy topic, rich rigor, sincerity, credibility, resonance, significant contribution, ethical, and meaningful coherence.
11. Sincerity is how genuine and vulnerable you are as a researcher.
12. Credibility is how dependable and trustworthy you are at expressing the words and realities expressed to you. Two ways you can establish credibility are through thick description and triangulation.
13. Resonance applies when interpretive researchers use impactful cases or quotations to impact an audience. Two ways to do this are with transferability and aesthetic merit.
14. A study must make a contribution. The four kinds of contributions are: theoretical, heuristic, methodological, and/or practical.

15. Critical theorists emphasize subjectivity, ideology, critique, power, and emancipation.
16. Critical theorists position themselves in opposition to many of the standards of social science including independent facts, regularities, and causality.
17. The solution for critical theorists is reflexivity in research.

Activity

Communication scholars need to be versed in the entire range of research paradigms and methods at their disposal. Yet, scholars tend to gravitate toward and focus on one paradigm. List the warrants which "speak to you." Share your list with classmates and explain, as well as possible, what you hear as the warrants speak. Based on your list of warrants, what type of communication scholar might you become?

Key Terms

Aesthetic Merit
Alternate Forms
Coherence
Concurrent Validity
Construct Validity
Content Validity
Credibility
Criterion-Related Validity
Intercoder Reliability
Internal Consistency
Parsimony
Power
Precision
Predictive Validity
Reliability
Resonance
Rigor
Sincerity
Test-Retest
Thick Description
Transferability
Triangulation
Validity
Worthy Topic

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7 Hypotheses and Research Questions

Chapter Outline

What Will I Learn About Hypotheses and Research Questions?

In the 1999 film, *October Sky,* four science students called the Rocket Boys aspire to build a rocket. Over the course of a year they build multiple rockets. Many of these rockets explode immediately, never getting far off the ground, while others soar far into the sky. Over the course of their rocket experiments, the boys are blamed for a forest fire and must use advanced calculus and rocketry to prove that one of their rockets, a missing one, did not start the fire. In proving their missing rocket did not start the fire (and it didn't) the young boys hypothesize the distance their rocket could have flown at the time of the forest fire based on how far their other rockets were flying, and on the wind, and other variables. Through the collection and analysis of the variables, the boys are able to locate their missing rocket and prove that they did not start the fire. In the end, all four boys go to a college or university, and one of them (Homer Hickam) even goes on to work for the National Aeronautics and Space Administration (NASA) in developing and testing rockets. This story is one example of how hypotheses are created and then tested. The process is virtually the same in the social sciences.

The development of and the testing of hypotheses and research questions is an important part of the research process. Hypotheses are basically statements about the relationships between variables, while research questions are questions about proposed relationships between variables. Data are then used to test hypotheses and research questions. To understand the nature of both, we need to know: 1) what hypotheses and research questions are, 2) what do they do, and 3) how we know if our hypothesis or research question is "right." We explore these questions and others in Chapter 7 in our discussion of Hypotheses and Research Questions.

Types of Hypotheses and Research Questions

A research question is similar to a hypothesis in some ways. A research question is the focus of your study and what you are trying to answer. A research question shows some kind of relationship or difference between variables. Research questions can be written to explore processes, understand behaviors, discover meaning, describe experiences, and report stories (Creswell, 2009). We will provide examples later, don't worry.

A hypothesis is a testable statement showing how two or more concepts or ideas are related or different in some ways. We develop hypotheses from theoretical propositions, which are statements based in research asserting how concepts or ideas are related. Hypotheses take propositions a step further through empirical testing. Thus, the researcher's focus is to test hypotheses through empirical testing. After empirically testing a hypothesis repeatedly, our confidence increases. You will typically only see hypotheses in quantitative studies and rarely see them in qualitative or critical studies. Hypotheses can be divided into two separate kinds: null and research.

Many social scientists focus on the important work of confirming and disconfirming what we claim to know. This means that some researchers are interested in testing whether no relationship exists between variables. A null hypothesis states that no relationship exists between variables, or that there is no significant effect of an independent variable on a dependent variable. Let's pause here for a moment and define these two key terms—dependent variable and independent variable. In a study or experiment, an independent variable is controlled or does not depend on the other variables. A dependent variable is what is measured or tested in a study or experiment, and changes in relation to the values of the independent variable. For example, a communication researcher is interested in the extent to which political affiliation (conservative, liberal, green, socialist, etc.) influences willingness to support socialized health care initiatives. Political affiliation is the independent variable because it stands alone and is not affected by a person's willingness to support socialized health care initiatives. On the other hand, the dependent variable is a person's willingness to support socialized health care initiatives, as this level of support is influenced by their political affiliation (or at least the research hypothesizes this relationship). A second example is that time spent studying influences test scores. The independent variable is time spent studying, while the dependent variable is a person's test scores.

Returning to the null hypothesis, the null exists for researchers so we can examine how different our findings are from the null. We compare the null and our results to understand the "importance" or significance of our results. For example, we may be interested in exploring the relationship between biological sex and academic major. The null hypothesis states:

> H_0: There is no relationship between a person's sex (male or female) and their chosen academic major.

Your null hypothesis is essentially saying that men and women do not differ in their choice of academic major. Student sex is the independent variable and college academic major is the dependent variable.

A research hypothesis, on the other hand, proposes that an independent variable has a significant effect on a dependent variable. A research hypothesis states that a difference or relationship exists. Research hypotheses come in three main forms. The first form is a non-directional research hypothesis. A non-directional hypothesis states that a difference or relationship exists, but does not predict in which direction or magnitude. A researcher's job is to test the significance of the relationship or difference. Non-directional research questions work in the same way as non-directional hypotheses. For example, you could propose:

> H_1: There is a difference between the academic major selection of men and women.

An example of a non-directional research question could be:

> RQ_1: Is there a difference between the academic major selection of men and women?

The main difference between the hypothesis and the research question is the depth of previous research. A hypothesis has enough research behind it to propose the hypothesis in the first place, and you are trying to *confirm* the difference identified in previous research. With a research question, you have some research *leading* you to think there may be a difference or relationship, but you are not sure. Therefore, you are exploring to see if a difference or relationship exists.

Craig and Wright (2012) in their study of relational development and Facebook hypothesize that "attitude similarity will be predictive of social attraction for Facebook partners" (p. 122). Craig and Wright did not hypothesize "how" predictive attitude similarity would be for social attraction of people on Facebook, just that

being more similar in attitude would predict social attraction to others on Facebook.

Craig and Wright (2012) also provide directional hypotheses in their research on relational development and Facebook. A directional hypothesis proposes a difference or relationship and states the direction or magnitude (directional research questions work in the same way). Here are some examples of directional hypotheses or research questions:

H_2: Female college students are more likely than male college students to choose communication as a major.

RQ_2: Will female college students choose communication as a college major more than male college students?

Unlike non-directional hypotheses and research questions, directional hypotheses and research questions posit the direction of difference. The researcher has sufficient evidence to put forth a statement of direction or magnitude of difference or relationship.

Let's return to Craig and Wright (2012), who state that "individuals who report high levels of social attraction should also report having greater breadth and depth of self-disclosure with their Facebook friends" (p. 122). In this hypothesis, high levels of social attraction are related to greater breadth and depth of social disclosure with Facebook friends; a direct relationship is posited, suggesting that all variables increase with one another. We will talk about why you would choose a directional or a non-directional hypothesis after we discuss the third kind of research hypothesis, causal.

A causal hypothesis proposes a cause-and-effect relationship between variables. We will talk a lot more about cause-and-effect hypotheses and how a true cause-and-effect relationship is difficult to prove without conducting a true experiment. For the time being, one might propose:

H_3: The more you eat the more weight you gain.

RQ_3: Does eating more food lead to weight gain?

The logic behind the hypothesis and research question is that increased food consumption leads to (causes) increased weight gain (the effect).

Chang (2012) hypothesizes in a study of ambivalence (or the state of having simultaneous conflicting feelings about a thing or person) toward the mass media that: "strong arguments generate more favorable (a) ad attitudes and (b) brand attitudes than weak arguments only when individuals feel ambivalent toward the endorser" (p. 337). In this hypothesis, strong persuasive arguments (the cause) lead to more favorable attitudes toward ads and brands (the effect). A nice way to think about causal hypotheses is from a medical perspective. If you have ever taken a pill and received relief, think about cause and effect. The effect is relief, which is caused by the medication entering your body and influencing various vital organs and internal processes.

> Going back to *October Sky* many of the Rocket Boys' early rockets blew up early after launch. The four young boys deduced that air bubbles were present in the rocket launchers' propellant, causing the rockets to blow up. They thus hypothesized that pure alcohol would be a more efficient propellant. This hypothesis was correct, as an alcohol-based propellant was less prone to air bubbles, and thus less prone to explosions.

What Kind of Hypothesis or Research Question to Use

You may be asking yourself: when should I use a directional, non-directional, or causal hypothesis or research question? If you want to test if a difference or relationship exists between variables, you use a research hypothesis. When you want to test or explore for differences or a relationship, a research hypothesis or research question may be appropriate. These can be directional, non-directional or causal. You use a directional hypothesis based on previous research you already know—or at least you think you know—when investigating the direction of the relationship or difference between the variables. Thus, you are confirming the relationship or difference. With a directional research question, you have almost enough evidence to pose a hypothesis but are being safe and posing a research question.

A non-directional hypothesis is still based on previous research, but is generally broader as you may not have enough information to make a specific prediction of the direction of the relationship or difference, or your purpose is to just confirm a difference or relationship between variables (Neuman, 2011; Ragin, 1994). Similarly,

a non-directional research question is more exploratory in nature.

You use a causal hypothesis or research question when you have a significant amount of previous research and evidence to support an argument for a cause-and-effect relationship between variables. You must take great care to rule out other variables that can influence your proposed relationship. For example, with H_3 and RQ_3, a significant number of other variables could *cause* the effect we are predicting. Think about it. We will come back to this in a later chapter. Now that we have defined variables, hypotheses, and research questions, another important issue to consider is what makes a "good" hypothesis or research question. The next section discusses this important point.

Hypothesis and Research Question Characteristics

You may be asking: what makes a good hypothesis? A well-written hypothesis has five essential elements.

Elements of a "Good" Hypothesis

1. It is a declarative sentence. This means that a hypothesis should be a statement and not a question. For example, the hypothesis "is there a relationship between self-disclosure levels and shyness?" is not an effective hypothesis because it is a question and not a declarative statement. This is in fact a research question.
2. It posits an expected relationship between variables. The hypothesis "there is a relationship between self-disclosure levels and shyness" posits an expected relationship.
3. A hypothesis is based on literature. This means that a hypothesis furthers previous research. The research by Chang (2012) and Craig and Wright (2012) includes in-depth reviews of literature that demonstrate relationships between various variables. Their hypotheses were put forth to test these relationships.
4. It should not be too long; it should be succinct and to the point. You will find that most hypotheses are only one sentence in length. The Craig and Wright hypotheses are a great example of direct and to-the-point hypotheses.
5. It must be testable. An example of an untestable hypothesis is "God exists." The point of this statement is not to criticize faith, but to point out that this statement is not testable. You must accept belief in God on faith; you cannot test the existence of a supreme being. Therefore, this hypothesis just does not work. A testable hypothesis related to religion could be: "Individuals with higher self-professed faith are more likely to attend religious services more regularly." This is a declarative sentence, posits a relationship between variables, is based in literature, is not too long, and is testable.

So, what about a good research question? A "good" research question also has five important elements.

Elements of a "Good" Research Question

1. It is in the form of a question. This may seem obvious, yes, but sometimes it is nice to point out the obvious.
2. It conveys the focus of your study. While many research questions ask about some relationships or differences between variables, this is not always the case. Exploring relationships between variables and differences between variables is a very social scientific way to look at research questions. Interpretivists and critical scholars use research! For an interpretive scholar like Toyosaki (2004) exploring Japanese accounts of American culture, a research question may be something like: "How do Japanese international students understand U.S. American communication?" (p. 161). A more social scientific take on a research question comes from Nan and Zhao (2012) in their study of self-affirmation and anti-smoking messages: "will the effect of self-affirmation on reducing negative responses to anti-smoking messages be more pronounced among low-reactant smokers compared to nonsmokers and high-reactant smokers?" (p. 487).

3. It is based on literature. The Toyosaki (2004) and the Nan and Zhao (2012) pieces both include extensive reviews of the literature that led them to pose their research questions.
4. It is not too long. The Toyosaki research question is a great example of a succinct question. Two other examples are provided by Eguchi and Starosta (2012): "*RQ1:* Are we the model minority? *RQ2:* Should we perform as if we are the model minority?" (p. 92). Based on their review of literature related to the model-minority image among Asian-American professional men, the authors present two direct and simple questions that guide them to an in-depth analysis.
5. It must be something you can research. A bad research question would be: "What is the true meaning of life?" How do you plan on researching that? You could ask: "What do college students believe to be the meaning of life?" Focusing your research on a group and uncovering their meanings of life has put the focus of the study on this group and their interpretations of life, instead of on some abstract idea that is impossible to uncover. We discuss in Chapters 8–20 various methods you can use to answer this question and many others in your research.

Testing

Developing a research idea is the first step in the research process. Your research idea will lead to collecting published research articles which will show up in your literature review (step two). The culmination of your literature review will be a single or multiple hypothesis or research question, or a combination of hypotheses or research questions (step three). Next, you will need to conduct your research project (step four). In other chapters, we describe various methods you can use to collect data, analyze data, and report data. Each method offers a way for you to test hypotheses or explore research questions, and we offer in-depth discussions of how each method will help you in your research. The fifth and sixth steps (which we will talk about shortly), apply only to the social scientific paradigm and focus on the amount of error involved in your study and whether your results are significant or not, which determines whether you accept or reject your hypothesis. The seventh step is to write up your results and conclusions. A discussion of how to do this is included in each of the method chapters. We will now talk about error and significance.

Error

Two assumptions underlying hypothesis testing and the social scientific paradigm are the Central Limit Theorem and the Bell Curve. As discussed in Chapter 5 on Data, the Central Limit Theorem asserts that: 1) under normal situations, data taken from larger samples will tend to be normally distributed, 2) as additional samples are taken from a population, there is a greater chance that your sample represents the population, 3) random selection is the most preferred selection procedure, and 4) if you can't get a random sample, you must estimate the amount of error present in your sample. The Central Limit Theorem has two important elements we need to discuss at this point. The first is the normal distribution principle.

Statistical distributions can be symmetrical or asymmetrical. An asymmetrical distribution is skewed in some way, meaning that the majority of scores are shifted either to the right or the left of the distribution's center. A symmetrical distribution is a single peak in the distribution at the mean, called a bell curve. In a bell curve, the dispersion of scores is relatively stable. Figure 7.1 depicts how scores are dispersed within a normal distribution. Under such a distribution, 68% of all scores will fall within +/- 1 standard deviation of the mean, 95% will fall within +/- 2 standard deviations of the mean, and 99% will fall within +/- 3 standard deviations of the mean. Based on this distribution rule, we can test hypotheses and determine scores inside or outside of the normal distribution. Such tests of normality will prove to be an important part of inferential statistics, which we talk about later in this book.

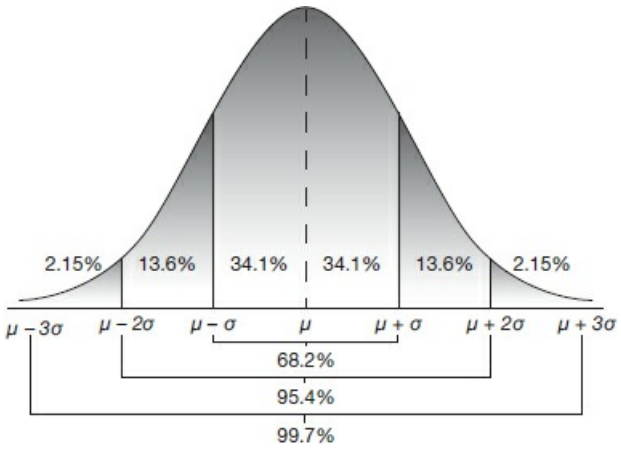

Figure 7.1

Based on the Central Limit Theorem, the larger your sample and/or the more samples you collect, the more likely you are to have a normal distribution. Normal distributions are likely to occur when a fundamentally random process is at work, but most real-life variables are not random. For example, measures of marital satisfaction are not only non-random but generally have a negative skew, because most married couples report very high satisfaction. However, real-life distributions are not normal in theory and we need to test hypotheses and research questions. In every distribution, you will also have an amount of error, or the degree to which a sample differs from the population. Error is important to consider since it helps determine the outcome of our hypothesis or research question testing. Let's examine the following case study to better understand error and probability level.

Case Study

Stephen is mainly a cross-cultural researcher. This means most of his research compares phenomena in different cultures. One of the regions he has explored is Finland. While living there, he discovered that little research has examined Finnish communication traits. From 2012 to 2016, his research team collected data on how Finns approach conflict situations in organizational situations, specifically on the conflict styles (avoiding, compromising, dominating, integrating, and obliging) they take in conflict situations. Stephen distributed surveys online and a total of 244 people completed the surveys. The average age of the participants was 31.99 years old (SD = 10.46 years). Stephen's research team based their definition of conflict styles on work by Oetzel (1998), who defined conflict style as "the general pattern or behavioral orientation an individual takes toward conflict" (p. 133). They developed a survey in English and then translated it into Finnish. The survey included demographic questions and various scales to measure conflict styles and other communication traits (Croucher, Galy-Badenas, Jäntti, Carlson, & Ziying, 2016).

> *SD* = standard deviation. The standard deviation is the average distance between a score (measurement) and the mean. The standard deviation can be negative or positive. Larger standard deviations (ignoring the sign) represent more variability in the distribution, while smaller standard deviations represent less variability. At this point in time it is interesting to note that this study had a relatively large *SD* for age, 10.46 years.

Based on previous research (Cai, Wilson, & Drake, 2000; Carbaugh, 1995; Croucher, 2011; Lehtonen, & Sajavaara, 1985; Sallinen-Kuparinen, Asikainen, Gerlander, Kukkola, & Sihto, 1987; Siira, Rogan, & Hall, 2004), the research team found that researchers classified Finland as a collectivistic society. Some researchers have asserted that Finns would prefer the style of avoiding conflict, while some researchers said that Finns in fact prefer to control conflict situations (dominating). However, all previous research on Finnish conflict style preference were conducted on college students. A null hypothesis to help frame the research on conflict styles in Finland states:

H_0: There is no difference in conflict style preference among Finns.

The team believed a difference existed based on the published evidence and their lived experiences in Finland. Since the published research did not clearly support a preferred Finnish conflict style, the team had to develop

research questions:

RQ_4: What is the overall conflict style orientation of Finns?

RQ_5: To what extent do an individual's age and sex predict his/her conflict style orientation?

The only hypothesis the research team proposed was based on the relationship between conflict styles and educational level. The team knew from reading previous research that a relationship does exist between conflict style preference and level of education. Previous research has shown that educational level predicts each of the five conflict styles differently (Croucher, 2011). So, they posed the following non-directional hypothesis:

H_4: Educational level will predict conflict style preference.

Now, 244 people are nowhere near the population of Finland! The research team took a sample of the Finnish population. Stephen and his team had to be careful of two key things when interpreting their results: error and significance interpretation. We will answer just one of the questions in this study for now (RQ_4) and come back to the other ones later. The research team found that Finns prefer the avoiding (M = 6.22; SD = 1.74) conflict style the most, and least prefer the dominating conflict style (M = 4.04; SD = 1.09), F(2.23, 540.15) = 181.75, p < .0001. The results represent the means for the samples. You may notice a few statistical terms you are not familiar with yet. That is alright; we'll explain one to you now. After the standard deviations we have included p, which signifies the alpha significance level. When the research team examined conflict styles among Finns, they ran their results in SPSS, a statistical program we will talk more about in later chapters, and got their results. However, how do we know if the results are statistically significant? We just said that Finns prefer the avoiding (M = 6.22; SD = 1.74) conflict style the most, and least prefer the dominating conflict style (M = 4.04; SD = 1.09), F(2.23, 540.15) = 181.75, p < .0001. While the avoiding style (M = 6.22) has a higher mean than the dominating style (M = 4.04), this does not indicate, statistically speaking, that Finns prefer a dominating style. The statistical results tell the team the statistical difference is p < .0001, or probability level (p).

When conducting statistical research, you must be certain that your results are statistically significant before claiming you have found something. Most researchers in the natural sciences and the social sciences rely on the 95% rule, or confidence interval, as a minimum standard. This means that researchers expect their results to be accurate 95% of the time, and allow at the most 5% inaccuracy. Inaccuracy can be attributed to various things such as sampling errors, how people answer questions on a survey, researcher bias, and alternative variables. Ultimately, you want to be sure that your results are not produced by chance, and that the data in your sample actually represent the relationship or difference between the variables in the population.

Let's walk through an example. A pharmaceutical company is conducting a clinical trial of a new drug called Pain Drug X. The company is conducting clinical trials on a sample of volunteers (how most clinical trials take place). The company sets a 95% confidence rate (p < .05), and finds that the drug has adverse effects on 5 in 100 people. 95% is not a very good rate if you consider 1 million people could take the drug, meaning that 50,000 people could be hurt. So, what many companies do is raise the confidence interval to 99.9% (p < .001). In this case, the company will keep working on the drug until only 1 in every 10,000 might be hurt by the medication.

The probability level simply helps us determine if our results are statistically significant. Since statistics are related to a sample, the significance of our results tells us how confident we can be that those results represent the population. The following box includes some tips to help you determine if a finding is statistically significant.

Alpha Significance Levels

$p \geq .05$, there is more than a 5% chance that the null hypothesis is true; there is not a significant statistical finding. We are *not* sure there is something going on.

$p \leq .05$, there is less than a 5% chance that the null hypothesis is true; there is a significant statistical finding. We are 95% sure there is something going on.

$p \leq .01$, there is less than a 1% chance that the null hypothesis is true; there is a significant statistical finding. We are 99% sure there is something going on.

$p \leq .001$, there is a less than .01% chance that the null hypothesis is true; there is a significant statistical

finding. We are 99.9% sure that there is something going on.

In the case of the conflict styles study in Finland, the research team's p was rather significant— $p \leq .0001$—and the errors for both conflict styles were very low. This probability level means that the research group could be 99.99% sure that the results found in their sample would be found in the general population. In fact, due to this high confidence interval, the researchers could confidently say that there is a statistical difference between Finns' preference of the dominating and the avoiding conflict styles.

With this statistical result in mind, the research team *rejected* their null hypothesis. The null hypothesis H_0 for this project was: "There is no difference in conflict style difference among Finns." The statistical finding clearly reveals a difference, so "There is a difference in conflict style preference among Finns." If you conduct research and the results are not significant—$p \geq .05$—then you must *accept* the null as your results are not significant, and you have not shown a statistically significant difference or relationship.

Let's summarize the key points about hypothesis testing. Data from a sample will never perfectly reflect what is really the case in the population from which it comes. For that reason, we cannot be sure whether what appears to be a hypothesized difference or relationship in one's sample truly reflects a difference or relationship in the real world. But statistical analysis allows us to estimate the odds. Here is how it all works. First, we defined our independent variables and our dependent variable. Second, we determined the null hypothesis. Third, we used statistics to estimate the likelihood of any difference or relationship in the sample data. Fourth, when the odds are high that no real difference or relationship exist in the real world, then the research hypothesis is not supported and the null hypothesis is supported. When the odds are low and we trust that a difference or relationship exists in the real world, then we support the research hypothesis by rejecting the null.

In the movie *October Sky,* Homer Hickam and the other Rocket Boys used the scientific method and hypothesizing to put a rocket into space. It was through meticulous data collection and analysis these young boys were able to complete their goals.

Summary

This chapter was devoted to hypotheses and research questions: what are they, when to use them, what makes a "good" hypothesis and/or research question, and what is the role of error in testing. We see and use hypotheses and research questions all the time, so it's important to know how to use them properly. The following chapters, Chapters 8–20, provide how-to guides for various research methods. Next is Chapter 8 with a how-to guide for ethnographic research.

Key Steps & Questions to Consider

1. A hypothesis or research question is the focus of your study; it is what you are trying to answer or explore.
2. An independent variable is the variable that is controlled or does not depend on other variables.
3. A dependent variable is the variable that is being measured or tested in a study or experiment. This variable changes in relation to the values of the independent variable.
4. Hypotheses are testable statements that two or more concepts or ideas are related or differ.
5. The null hypothesis states there is no difference or relationship between variables.
6. A non-directional hypothesis states there is a difference or relationship, but it does not state the direction or magnitude of the difference or relationship.
7. A directional hypothesis states there is a difference or relationship and it states the direction or magnitude of the difference or relationship.
8. A causal hypothesis states that at least one variable causes a change in at least one other variable. It is extremely difficult to show cause and effect as you must make sure the effect is caused by your variable of interest and not other variables. We talk more about this in Chapter 17 on Inferential Statistics.
9. Hypotheses should: be declarative statements, state expected relationships, be based on research, be succinct, and be testable.
10. Research questions should: be questions, tell the focus of your research, be based on research, be succinct,

and be testable.

11. The Central Limit Theorem is essential for testing hypotheses and exploring research questions because it helps us understand the normal distributions (bell curve) and standard error, which aid us in understanding how similar our sample is to the population.
12. The minimum threshold for statistical significance is $p \leq .05$. This means that we are 95% sure that our results have not occurred not by chance.

Activities

Scan through a recent copy of a newspaper. Select an article dealing with communication in some form. Articles dealing with politics or sports are good options. Break the class into groups and have each group:

1. Develop a research question, which helps to shape a potential research project.
2. Turn the research question into a null hypothesis.
3. Turn the null hypothesis into a non-directional hypothesis. (Assume you have sufficient evidence to support the hypothesis.)
4. Turn the non-directional hypothesis into a directional hypothesis. (Assume you have compelling evidence to support the hypothesis.)
5. Turn the directional hypothesis into a causal hypothesis.
6. Use the standards given in this chapter for a "good research question" and a "good hypothesis" to critique the research questions and hypotheses generated by the different groups. Notice that the same article (communication issue) can generate multiple different research directions!

Discussion Questions

1. What is the difference between a dependent and an independent variable?
2. How does the decision to use a research question or one of the hypothesis forms change the nature of a communication research project?
3. How will the selection of a specific confidence interval change what you can say about your results?
4. What steps can we take to control for error in a communication research project?

Key Terms

Asymmetrical Distribution
Bell Curve
Causal Hypothesis
Confidence Interval
Dependent Variable
Directional Hypothesis
Error
Hypothesis
Independent Variable
Non-Directional Hypothesis
Null Hypothesis
Research Hypothesis
Research Question
Symmetrical Distribution

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Part 3
Research Methods

8 Ethnography

Chapter Outline

What Will I Learn About Ethnography?

The photo shows the outside of a typical Finnish sauna. The sauna is located in Jyväskylä, Finland. Saunas are an integral part of Finnish culture and a place to socialize as a family, do business, and relax. Saunas date back hundreds of years in Finland. The nation has roughly 5 million people and more than 2 million saunas, showing just how significant the sauna is to the Finnish people. When Stephen first moved to Finland, he had to learn quickly about Finnish sauna culture. Stephen had to culturally adapt to Finnish life. Other scholars have commented on the need to understand and adapt to Finnish sauna life. Edelsward (1991) describes how the sauna is an important part of becoming Finnish, learning about Finnish culture, and being accepted by many Finns. Scholars of cultural adaptation (Croucher, 2008; Kim, 2001; Kramer, 2003) have argued that important elements of adapting to a new culture include learning about the culture and being accepted by the host culture. When considering the relationship between the Finnish sauna and adapting to Finnish culture, a researcher could ask various questions: 1) how does one learn culturally appropriate communication behaviors related to the Finnish sauna, 2) how does one truly experience a Finnish sauna (a performance of communication question), and 3) how does one experience Finnish culture through a Finnish sauna? Among the methods one could use to approach this research are: interviews, statistics, and content analysis. Ethnography is the method we explore in Chapter 8.

Ethnography Defined

Ethnography originally comes from cultural anthropology (Malinowski, 1922). Ethnography is the study of, writing about, and/or a description (graphy) of people or folk (ethno) (Berg, 1998; Spradley, 1979). Ethnography, at its essence, attempts to describe a culture from the viewpoint of a cultural insider (Denzin & Lincoln, 2003). By using ethnography, the researcher describes individuals' behaviors while inferring meaning from those behaviors.

The researcher draws inferences from cultural knowledge they have. Cultural knowledge includes the explicit and implicit cultural knowledge we have about life. Explicit knowledge includes things we know and can easily talk about. Implicit knowledge, on the other hand, is gained through everyday activities and you may not even realize learning is happening. For example, knowing how to ride a bike is implicit knowledge—you don't have to think about it, you just know.

For example, Stephen used to live in Finland, and saunas are very popular there; in fact, saunas are a national pastime. Before moving to Finland, he knew what a sauna was, and he could describe saunas (explicit knowledge). After spending more time in Finland, he learned cultural norms about Finnish saunas (implicit knowledge): such as the use of boughs of birch to beat oneself for massage and stimulation and that it is rude to swear in the sauna. He also learned that it is an honor to be invited into someone's sauna. The ob of the ethnographer observing Finnish sauna behavior is to draw upon their explicit and implicit knowledge about Finnish sauna life to provide a thick description of sauna life.

Edelsward (1991) conducted an ethnographic analysis on Finnish saunas. Edelsward describes how the sauna is a place for people to come together with nature and culture. Edelsward (1991) provides a thick description of sauna life and its relationship to Finnish culture. Geertz (1973) describes thick description as a detailed explanation of a social setting and lives of the people. Thick description is integral to ethnography. The description is the meat of an ethnography. The description shows culture in action. We will discuss thick description and how to write an ethnography more in this chapter as we go through the different types of ethnography. One can take various ethnographic approaches. We outline three approaches: 1) ethnography of speaking, 2) ethnography of communication, and 3) autoethnography.

Three Different Approaches to Ethnography

Ethnography of Speaking

Hymes' (1962) ethnography of speaking (EOS) is a method for studying culturally specific communication practices and patterns. EOS is the analysis of factors relevant to understanding how a communication event accomplishes its goals. Philipsen (1992) states that EOS consists of "hearing and representing distinctive ways of speaking in particular speech communities" (p. 9). Two assumptions are key to the EOS approach. First, speaking differs across cultures. Second, speaking represents social life, and thus tells us something distinct about the group. Therefore, observing and describing the speech behaviors of a group can tell us a lot about a group. Numerous scholars, following an EOS approach, have found that our speaking reveals something about our culture (Basso, 1970; Croucher, 2008; Engstrom, 2012; Leitner, 1983; Philipsen, 1975; Pratt & Weider, 1993; Zenk, 1988). The acronym SPEAKING was developed by Hymes (1962, 1974) to explain how to conduct an EOS analysis within a speech community. A speech community is a group of individuals who share a common set of norms/rules for interpreting and using speech (Carbaugh, 2005; Philipsen, 1992). The SPEAKING framework is a list of key questions one should ask when conducting an EOS analysis. See the following box for a description of the SPEAKING framework.

Hymes (1974) SPEAKING Framework

S – Setting and Scene. What is the setting, or the time and place of a speech act? What is the scene, or the psychological situation or cultural meaning of a scene?
P – Participants. Who are the people involved (particularly the speaker and the audience)?
E – Ends. What is the purpose or goal of the speech event?
A – Act sequence. What is the order of the event, how does the event progress?
K – Key. What are some hints to help understand the tone or spirit of the speech event?
I – Instrumentalities. What are the forms and styles of speech used by the speaker in the speech event?
N – Norms. What are the social norms that regulate the speech event?
G – Genre. What kind of speech event is taking place? What genre of speech is it?

Ethnography of Communication

Closely linked to Hymes' (1962, 1964, 1974) ethnography of speaking is ethnography of communication. Scholars who conduct ethnography of communication (EOC) research also focus on the speech acts or events of speech communities, but are more interested in learning and comparing the shared and varied codes of communication within and between groups (Cameron, 2001; Lindlof & Taylor, 2002). Ethnographers recognize that not every social group communicates the same way and are interested in how "shared meaning and coordinated action vary across social groups" (Philipsen, 1989, p. 258). EOC scholars combine linguistic and anthropological approaches to research. Various scholars have approached ethnography from the EOC approach, and/or combined the EOC with the EOS approach (Carbaugh, 2005; Croucher, 2006; Croucher & Cronn-Mills, 2011; Katriel, 1990; Katriel & Philipsen, 1981; Philipsen, 1975; Sherzer, 1983).

Here is an example of how Stephen's encounters with Finnish sauna life could be analyzed using Hymes' SPEAKING Framework (EOS) and the EOC approach to ethnography:

S – While visiting Oulu, a city 300 miles north of Helsinki, the capital of Finland, Stephen stayed at a hotel in the city center. The event took place in the late summer of 2012. He was still learning about Finland. He decided one night to go to the sauna.

P – Stephen sat in the sauna for about five minutes and was joined by a man (mid-30s, like Stephen) and the man's two sons who were eight and ten years old. Nobody else was in the sauna.

E – The father began to speak to Stephen in Finnish (Stephen knew very little Finnish at the time). When Stephen told him in Finnish that he spoke English or French, the man spoke English to him and asked why there was no steam in the sauna. Stephen did not know why. The man explained and showed Stephen how to properly use the empty metal bucket and ladle by their feet to throw water on the hot stones in the corner.

A – He went out of the sauna, filled the bucket with water, and tossed multiple ladles full of water on the hot stones. With each ladle, steam arose and filled the sauna. Every few minutes more water was thrown on the stones by different individuals (the children included). The sauna participants began to sweat profusely. After 10 minutes the father instructed Stephen and his children to get out and take a cold shower, then return to the sauna; the shower, he said, helped cleanse and refresh the skin. So, they did, and they returned to the sauna.

K – During the whole process, the children chuckled at how Stephen did not know about Finnish saunas. The father smiled and was happy to help and asked a lot about American culture.

I – The interaction took place in English and some broken Suomi (Finnish) was thrown in by Stephen to practice the Suomi he learned at school.

N – The four males were nude; in the United States, public saunas generally require bathing suits. You will rarely if ever find a situation in the United States where children are brought along with a parent to a sauna. Furthermore, if they are brought to a sauna, we doubt you will find them enjoying it to the same level as these eight and ten year olds. To them, the sauna is a way of life. Stephen also learned norms about throwing water on the stones. There are saunas in the United States that require water in the same way, but here all four people took turns, and there was an unwritten rule as to when water was thrown, something that the father said you just learn as you become one with the Finnish sauna.

G – This was a lesson on Finnish sauna protocol. Moreover, this experience demonstrated differences between saunas in Finland and the United States.

The job of EOS and EOC scholars is to provide a thick description (Geertz, 1973) of the community they are studying. Whether you are using the SPEAKING framework (EOS) or focusing less specifically on language use (EOC), your study should provide a clear understanding of the phenomena you set out to explore. You need to provide and analyze specific examples to back up your claims (we talk more about this in the Claims section later in the chapter). Examples are drawn from your data and can come from a variety of sources (e.g., interviews,

observation, media, documents, artifacts), which we outline in greater detail later. Ethnographies in the EOS and EOC approaches are typically written in the first person since this form of research is done within the interpretive or critical paradigms.

Autoethnography

When a researcher describes and analyzes personal experiences to better understand a cultural event, the researcher is conducting an autoethnography (Bruner, 1993; Denzin, 1989; Ellis, 2004; Holman Jones, 2005; Spry, 2001). Autoethnography is a combination of ethnography and autobiography. In this sense, while analyzing cultural events, the researcher not only describes events in the cultural setting but reflects on their own past experiences, includes those experiences in their text, writes about any epiphanies they have had during the research process that might influence their lives and the research, and discusses how past experiences and epiphanies come from and/or were made possible by being a part of the culture they are studying (Couser, 1997; Denzin, 1989; Goodall, 2006). The key is to integrate theory and method with descriptions of past and current experiences, realizations, and cultural descriptions. Autoethnography is almost always written in the first person (Ellis & Bochner, 2000), and your writing might use an approach other than the EOS or EOC approaches. Many autoethnographies are written as journals, short stories, poems, personal essays, prose, and in any other forms fitting the needs of the authors.

After moving to Finland, Stephen decided to journal his experiences of adjusting to Finnish life. The following excerpt refers to the same night in the sauna in which Stephen met the father and his two sons.

> September 7, 2012 – I (Stephen) will be the first one to say that sitting in a sauna with a man and his two sons completely naked is not something I would normally say is normal for me. I have always been a relatively shy person when it comes to my body. However, I must say I found it very liberating, relaxing, and interesting to sit in the sauna tonight. For someone who studies cultures, or tries to at least because I don't think I can ever truly understand a culture 100%, this was an interesting event. I really did not feel out of place or embarrassed, as the others were in the same position I was. I mean, the father was nude, and so were his sons. It is perfectly normal in Finnish sauna culture to be nude … in fact one cannot wear a bathing suit and one should not cover themselves with a towel or they look like a weirdo tourist. For me, this was one of the first times I really felt like I was learning some insider information about Finland from a stranger.

Keeping in mind the knowledge of the different approaches to ethnography, the following section discusses the types of claims used in ethnographic research.

Ethnographic Claims

Now that we have basic definitions of the three main kinds of ethnography used in communication, the next section describes how claims are proven. Ethnography affords the researcher a chance to make descriptive, interpretive, evaluative, and reformist claims.

Descriptive Claims

Lofland and Lofland (1995) state that ethnographers typically set out to describe the norms and practices of a group of individuals in a culture. While descriptive claims tend to be the most typical from an EOS or EOC approach, interpretive, evaluative, and reformist claims are possible. Those using an EOS approach are particularly interested in how individuals and groups name and describe their speech events, the parts of those speech events, and the functions of those speech events. Hymes (1962) describes how the naming of speech events and the parts of speech events include things like senders, receivers, and channels. The functions of speech events are essentially what speech events achieve within a speech community.

Interpretive Claims

Ethnographic methods can aid in furthering interpretive claims about the relationships between communication and culture. An interpretive claim can enhance our understanding of how, for example, communication creates culture and how culture creates communication. In Philipsen's (1975) analysis of Teamsterville, he finds that the

various ways participants in the community spoke created a shared sense of identity. This speech community's language created a shared sense of identity that shaped interactions among members and with non-members. His EOC approach to this study revealed various elements of life in Teamsterville. An analysis of just some of Philipsen's work (1975, 1992) shows how he uses an EOC and an EOS approach to describe and interpret cultural events and meanings.

Evaluative and Reformist Claims

For example, scholars who use autoethnography may make descriptive, evaluative, and reformist claims. Often, ethnographies containing evaluative and reformist claims are considered critical ethnographies (Ang, 1990; Conquergood, 1991). Evaluative claims are used when you judge the worth or value of a communication message you are studying (Denzin & Lincoln, 2003; Lofland & Lofland, 1995). Evaluative claims are often used to advocate for a change in some behavior or practice in a culture. Reformist claims take evaluation a step further and describe negative consequences of a current economic, political, or social system. Therefore, you can approach an ethnography with the intent of describing some behavior or practice and calling for possible change.

> Two descriptive or interpretive claims can be made about Finnish sauna culture. First, many Finns are happy to help someone learn about saunas. Stephen has found himself in many situations where a Finn has taught him something new about the sauna. Second, the sauna is a comfortable place for communication. At first, Stephen did not think the sauna would be a comfortable place to talk to other people, because you are naked. However, after numerous experiences, it became clear to him that the sauna is a relaxing environment in which to have a conversation. As for an evaluative or reformist claim, Stephen believes that saunas best represent the inclusiveness of the Finnish people. Thus, from an evaluative standpoint, he evaluates the saunas as a positive representation of Finnish society.

Now that you have a grasp of the different approaches to ethnography, and ethnographic claims, the following section describes the various kinds of data used in ethnographic research.

Ethnographic Data and Data Collection

An ethnographic research project requires taking into consideration the different types of data. Ethnographic research typically involves conducting participant observations or interviews.

Participant Observation

The backbone of ethnographic research is participant observation. Participant observation involves learning about and watching a culture by participating in its cultural setting (Briggs, 1986; Warren & Karner, 2005). Your level of participation or membership in the setting can vary from extensive (become a part of the culture) to minimal (simply observing and not participating). Here are some standards for deciding, as a researcher, a level of participation: 1) your comfort level with the setting and participants, 2) the comfort level of the participants with you, 3) how competent you are with the communication of the setting and participants, 4) your purpose in doing the research, and 5) how long you can be in the setting (just to name a few) (Spradley, 1979).

In Croucher's (2005, 2006, 2008) ethnographic analysis of North African immigrants to France, he engages in participant observation. Stephen observed this community as a "field researcher" who was not extensively integrated with the community; thus, his participation was minimal. Other scholars, such as Angrosino, have taken a more active role in their ethnographic studies. In this line of work, Angrosino (1992, 1997, 1998) took on the role of a volunteer with a community-based mental illness agency to better understand the lives of children and adults with mental disabilities. Both scholars spent a considerable amount of time with their participants, but in two different roles: one as a "researcher," and the other as a "researcher-volunteer."

> If you look at Stephen's analysis of saunas, he was a participant/researcher. He never volunteered to work at the saunas.

Interviews

Interviews are an integral part of the ethnographic research process (Babbie, 2002; Briggs, 1986). Interviewing involves asking questions and getting answers from the participants involved in your study. Lofland and Lofland (1995) explain how interviewing in an ethnographic research project involves conversations and storytelling between researchers and participants. In ethnographic research, interviews are often used in conjunction with participant observation to better understand cultural phenomena. Ethnographic interviews come in various forms, but generally take one of the following: 1) oral history, 2) personal narrative, or 3) topical interviews (Babbie, 2002; Bernard, 1999; Creswell, 1998). In an oral history, participants recount historical moments in their lives. A personal narrative is a participant's personal opinion or perspective on an event or experience. In a topical interview, the participant provides their opinion or perspective on a particular subject or topic. Often the three types of interviews will overlap and these interviews can be structured, unstructured, and/or semi-structured. As the researcher, the choice is yours to decide what kind of interview(s) you may use depending on the purpose of your project. After you have collected the interviews, you may need to transcribe the interviews to make analysis easier (we will talk about analysis shortly). In Croucher's (2006) work with Muslim and Chinese immigrants, he uses topical semi-structured interviews to ascertain how the immigrants felt about external pressures to assimilate in France and Canada. In both contexts (France and Canada), the conversations were open, but focused on the topic of pressures to assimilate.

Individuals Stephen met in the saunas gave personal narratives about saunas. He conducted very informal conversations with individuals in this setting, so as to not intrude on individuals enjoying their relaxation in the saunas.

When you are conducting participant observation and interviews, you must keep a few things in mind. First, before you are able to interact with the community, you must gain access to the community. Will the community allow you to observe and/or participate? Gaining access is one of the hardest steps in ethnography (Patton, 1990). You will normally find gaining access easier with a community to which you already belong. For example, if you are in a fraternity or sorority, gaining access may be easier for an ethnographic study. However, researchers who are not part of a group often rely on gatekeepers or insiders who are willing to facilitate the researcher's entry into the community (Babbie, 2002; Briggs, 1986). In Croucher's (2005, 2006, 2008) research, his gatekeeper was an Imam in Paris who introduced him to numerous Muslim immigrants in France. The importance of gatekeepers cannot be overstated, because without them, many researchers would not gain access conduct their research.

Fortunately, Stephen did not need a gatekeeper to go into a Finnish sauna, as the ones he went into were in hotels, where paying guests were allowed to go.

Second, you must strive to establish rapport with your participants (Babbie, 2002; Briggs, 1986). If participants do not trust you, they are not likely to allow you to observe their lives and learn about their culture. So, listen to the participants, do not cut them off in conversation, show some empathy for what they are saying, reciprocate in the conversation, and try to show commonalities when possible (Bernard, 1999; Patton, 1990).

Stephen spent a great deal of his time listening to the individuals in the saunas talk about sauna culture. Listening is often underrated in rapport-building.

Third, you need to be open to change. When you are out in the field, you will find things do not always go as planned. You may go into a setting expecting one thing and find something else. Unexpected findings and surprises frequently teach us the most about a culture (Babbie, 2002; Croucher, 2008).

It is expected that only men will enter a men's sauna in Finland. In Turku, a nude Russian woman walked into the men's sauna and surprised all of the men. She said she did not understand the written signs. However, stick figures of men are on the wall designating the sauna for men only.

Fourth, you need to take detailed notes while in the field. When you are conducting an ethnography, you will be in the field for an extended period of time (depending on your project). You therefore need to write down (log) what you see, hear, smell, taste, etc. in a journal of some sort. A journal is an essential tool to help you remember what you saw, heard, learned, etc. Taking notes about things such as key actors in the field, conversations you hear, actions you see, etc., will be essential when you write up your final report (Berg, 1998; Creswell, 1998). Date all the entries in your journal—any and every observation could be important in the end. Take notes in a way comfortable for you, and take notes often. Having more notes than you need is better than coming up short when writing your research paper.

> Stephen put notes on his computer every night after visiting a sauna. Often, the notes were a few pages long and detailed any conversation he had.

Fifth, when you are done collecting data in the field, you will depart the community. As with interviewing, you will reach a data saturation point; a point where you do not feel as though you are learning anything new. We will talk more about this in Chapter 9 on Interviewing. The task of leaving the field is not as easy as simply picking up your suitcase at the airport luggage carousel and walking out to your car. You have responsibilities to heed when leaving the field. First, do you want to stay in contact with your participants? Staying in contact is a personal choice you need to make based on your research and personal situation. Second, do you plan to share your results with your participants? In some situations, sharing is impossible since you may not be in contact anymore. However, if you have access to participants, you need to decide if you will share your results with them. Various scholars have shared results with their participants (Angrosino, 1997, 1998; Croucher, 2006, 2008; Spencer, 2011). Sharing is a personal choice.

> Stephen is no longer in the field. He will not be able to directly share his results with his participants because he did not keep their names on file.

Sixth, if you are doing ethnographic work, you will need to work on reflexivity. Reflexivity is the ability to reflect on your own experiences to understand how they are both product and producer of a given cultural experience (Ellis, 2004). Look back at experiences in your own life, be retrospective, and see how your experiences are created by and create other cultural experiences. Your experiences in life will influence how you interpret what you encounter in the field. Identifying influences in your life is important and should be reflected in your writing (Alvesson & Skoldberg, 2000).

Now that you have a grasp of the types of data collected for an ethnographic research project, the following section briefly discusses how to analyze ethnographic data.

Ethnographic Data Analysis

Grounded theory (Glaser & Strauss, 1967; Strauss & Corbin, 1991) is often used to analyze ethnographic data. The process can be used to look for themes in your interview transcripts and to tease out categories from your observation field notes (Bernard, 1999). Scholars also take a symbolic interactionist approach to analyzing ethnographic data. Symbolic inter-ctionism is associated with Mead (1934) and Blumer (1969). In essence, shared meanings are created through interactions, and these meanings become reality. Patton (1990) outlines three premises essential to symbolic interactionism: 1) humans act towards things on the basis of pre-determined meanings; 2) meanings come from social interactions; and 3) meanings are modified as individuals encounter new experiences and individuals.

Here are a few hints about ethnographic data analysis. First, keep in mind that the approach to ethnography you are using will help determine your analytic approach. If you are using the EOS approach SPEAKING, you will enter the analysis with pre-determined categories to guide you. A SPEAKING analysis is different than an EOC analysis, in which you will allow more of your categories to emerge from the ground up (a form of deductive analysis). Second, always be on the lookout for categories and themes in your data. Third, before you enter the setting you will have done a lot of research on the topic. The key is to not allow your previous knowledge of the setting, as opposed to the observations and interview data in front of you, to override your interpretations of the

data. Your interpretations must come from what you experienced in the field.

> Stephen's work will be mainly from an EOC perspective. Stephen will want to make sure he allows his observations and interview data to drive his analysis of Finnish sauna culture, and not his knowledge from the literature.

If you look to the work of scholars who have used the EOS and EOC approaches (Carbaugh, 2005; Croucher, 2008; Katriel, 1990; Philipsen, 1975; Sherzer, 1983), you will find that some have used the SPEAKING framework and some have used grounded theory. Autoethnographic scholars have used metaphors (Fox, 2010), grounded theory (McKemmish, Burstein, Manaszewicz, Fisher, & Evans, 2012), and symbolic interactionism (Olson, 2004).

So, you have your data, and you have some options of how to analyze your data. The next section of the chapter reviews warrants for ethnographic research.

Ethnographic Warrants

Warrants for ethnographic research follow a path similar to interview-based research. Key issues to consider are researcher credibility, adequacy, coherence, and thick description.

We can determine researcher credibility using three key components: level of training or experience, degree of membership in the social context, and faithfulness. First, how well-trained is the researcher at conducting interviews and/or observing human interaction? For new researchers, the art of observation and interviews can be somewhat daunting. Ethnography, like all forms of research, is a process one never truly masters. However, you must prepare yourself before you enter the setting by studying the culture in question to the best of your ability. Many individuals find it difficult to link theory to their ethnographies, struggle with writing about their own experiences, and with connecting those experiences to other cultural phenomena. Second, you need to determine how involved you are going to be with the community if conducting EOS or EOC research. One of the first elements of participant observation is your determination of your level of involvement. Your degree of membership must be made clear to the readers. Third, you must be detailed in your note-taking and transcriptions. Ask yourself if you have spent enough time in the field, if you have enough interviews, etc.

Adequacy and coherence relate to two key issues. First, do you have enough data to make an adequate argument (Patton, 1990)? Have you kept a sufficiently detailed journal of your thoughts on a particular issue to make up your autoethnography? When Stephen did his work among Chinese immigrants in Canada, he spoke with them, he observed their shops, and their interactions with clients, family members, and their entire surroundings. Observing and recording their entire surroundings helped him better understand their daily lives. Second, you need to consider whether the results you are presenting provide a coherent argument for the descriptive, interpretive, evaluative, or reformist claims you are making. Look at your examples (observations or interviews) and make sure they back up your claims. Provide more than one example to back up each claim and show readers your evidence. You should strive to vividly describe the examples. The use of thick description (Geertz, 1973) is essential to supporting all types of ethnographic claims.

> Stephen will want to make sure his observations and notes from sauna culture illustrate the various aspects of how Finnish saunas represent Finnish culture. He could also discuss how he has begun to acculturate (Kim, 2001) into Finnish culture through his use of these saunas.

Summary

This chapter, the first of the how-to guides, was a how-to guide on ethnographic research. Ethnographic research is generally approached from the interpretive or critical/cultural paradigm. Hopefully, after reading the chapter and the accompanying student paper, you feel comfortable enough to go out there and conduct your own ethnographic study. The next chapter (Chapter 9) is a how-to guide on interviewing.

Key Steps & Questions to Consider

1. Choose your topic and research it.
2. Choose your population.
3. How will you access this population?
4. Are you doing a random or non-random sampling?
5. Is your project going to be an observation or interview ethnography, a mixture of the two, or an autoethnography? Why?
6. If you do an interview-based ethnography project, are your questions structured, semi-structured, or unstructured? How many questions are you going to ask? How many people are you going to interview?
7. If your project is an observation, how long will it be?
8. Before you entered the field, did you write, submit, and get approval from your Human Subject Review Board or Institutional Review Board?
9. Remember rapport!
10. Will you tape or video-record the interviews and the observations or not?
11. Remember that you will need to transcribe the interviews (or have someone else do it for you). This takes a lot of time but it makes analysis of the interviews so much better as you will better know what you have in your data!
12. Take good field notes!
13. Be open to change in the setting.
14. Self-reflect on your position as the researcher. Are you a part of the group you are studying or an outsider? This self-reflection is always helpful as it aids in uncovering meaning.
15. Reflexivity!
16. Look through your transcripts and field notes for either pre-determined themes or emergent themes.
17. Support your themes with coherent examples.
18. Throughout this whole process you may have already been writing some of your research paper (your analysis of literature, for example), if not, start.

Activities

1. Pick a location on campus or in your community and conduct a non-participant mini-ethnography. Spend enough time in the location to develop some insight and gather some thick description. Focus on one aspect of a communication theory and see what critical or interpretative observations emerge.
2. Visit the same location and switch to a participant observation ethnographic approach. Focus on the same communication theory as the first activity. Again, see what insights emerge from your ethnography.
3. Compare your observations from the non-participant and participant observations. How did your thick description change? How did your critical or interpretative insights change?

Discussion Questions

As you read the student paper provided at the end of this chapter, consider the following questions.

1. Using the ethnographic descriptions the student provides, interpret the data in light of different communication theories.
2. Again, using the student's descriptions, re-analyze the data using using Hymes' SPEAKING Framework described in this chapter.

Key Terms

Autoethnography
Cultural Knowledge
Ethnography
Ethnography of Communication

Ethnography of Speaking
Gatekeepers
Oral History
Participant Observation
Personal Narrative
Rapport
Reflexivity
SPEAKING
Speech Community
Symbolic Interactionism
Thick Description
Topical Interview

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Undergraduate Ethnographic Paper

How Does Self-Disclosure Differ in Dyadic Relationships?

An Authoethnography

Gina Sirico

Communication is a part of our daily lives, and we self-disclose, or voluntarily reveal information, to others in order to create and maintain relationships. Self-disclosure is crucial to maintaining dyadic or interpersonal relationships. Self-disclosure is a way to gain information about another person and learn how they think and feel. Once one person engages in self-disclosure, we expect the other person will self-disclose back in return, which is the act of reciprocity (Borchers, 1999). Mutual self-disclosure helps relationships become stronger by building trust and understanding for each other.

Depending on the type of relationship and what stage of Knapp's coming together we are in, the amount of self-disclosure varies. Knapp's stages of disclosure are as follows: the initiation stage, experimenting, intensifying, integrating, and bonding (Borchers, 1999). Initiation is your first impression of the other person, usually within a few seconds of meeting them. In the experimenting stage, questions are asked to each other to determine if you want to continue the relationship. In the intensifying stage, self-disclosure is exchanged and each person is committed to starting a relationship with the other person. In the integrating stage, the individuals become a pair by doing things together and starting to share an identity. The final, or bonding stage is when a couple makes their relationship official (Borchers, 1999).

> Gina has a strong opening by setting up a theory for understanding the focus of her paper. Our one suggestion that she should read and cite from the original Knapp article instead of relying on Borchers' (1999) explanation of Knapp.

Studies on self-disclosure are sometimes done by observing other people's relationships. A study can be conducted where the researcher collected surveys from people in different stages of their relationships to analyze their amount of self-disclosure. The participants could be asked by the researcher to do a self-report and disclose their own behaviors of communication to show how they think and feel about their self-disclosure (Merrigan & Huston, 2009). Or an autoethnography can be done by the researcher about one's own self-disclosure.

An autoethnography is a self-narrative that critiques the position of self with others in social contexts (Merrigan & Huston, 2009). Autoethnography is the interpretive or critical analysis of a social setting or situation that connects the "personal to the cultural" (Porter, 2004). Autoethnography relies on systematic gathering and analysis of field data from people involved in genuine life experiences. Written in the first person, autoethnography is based on the interpretive paradigm values of rich description to include one person's multiple realities (Merrigan & Huston, 2009). The writer's focus is on the degree of membership in describing and interpreting one's own sense making in a cultural situation or setting. In this type of research, the key informant is the researcher himself or herself (Merrigan & Huston, 2009).

> Gina gives an effective "big picture" explanation of autoethnography, but could provide more details or "nuts and bolts" about the steps involved in the process of conducting an autoethnography.

I chose to do an autoethnography for my research about my level of self-disclosure with my boyfriend compared with my roommate. The amount of self-disclosure I engage in is different in each relationship. I looked at how I self-disclose with each person as well as the reasons for my self-disclosure. I discuss why I do and why I do not disclose with each person. I reflect back on my disclosure with each individual during a two-year period (my freshman to sophomore year of college).

Gina has a good opening for her descriptive section of the research paper.

My relationship with my boyfriend of three years is an integrated relationship. We have passed through all of the stages of coming together that Knapp described. In the Initiating stage, we knew we wanted to continue this relationship based on the visual and auditory cues we gave each other. When I first approached him, his response to my greeting was warm and positive. We exchanged eye contact and smiled, and offered some self-disclosure. I told him our fathers worked together, and it was all a continuous spiral from there. We continued to talk and flirt in our SAT class we had together. We moved on to the experimenting stage, where we continued to share more information with each other, realizing we had similar values and interests. For example, we are both Catholics, and we both previously had our hearts broken. We were each other's sounding boards, and we helped each other cope with the heartbreak, and began to develop a new, better relationship with each other. The experimenting stage lasted a few months, where we dated and went different places together that allowed us to develop our trust, and self-disclose to each other. We began going everywhere together as a couple. In this stage, he was able to self-disclose to me about his parents and their divorce, and I was able to help him deal with this still sensitive situation. In the intensifying stage, we made the commitment to be each other's one and only partner. In this stage, we also began to self-disclose more deeply, and used "we" and "us" instead of "you" and "I". We are currently still in this stage, talking about our future plans together as a couple. We also have more physical interaction, and touch (like holding hands, always being close) is comfortable to us. The integrating stage overlaps with the intensifying stage, where we are starting to take on characteristics of our partner. We smile the same big smile, laugh the same laugh, and have already merged our social circles. Self-disclosure is no longer an issue, and we self-disclose to each other every day. Family and friends are now "ours" and not just "mine". Activities that we care about separately, we now do together. An example is his love of football and my love of dance. We watch football games together, and we took salsa classes together. We are starting to become "one". Our final stage of coming together would be the bonding stage, where we would get married to make our commitment to each other permanent.

Gina walks us through Knapp's stages, but could use more thick description to provide the reader with a commanding picture of her relationship with her boyfriend. More specifics and details will help build a thick description.

The ways in which I self-disclose to my boyfriend are as a means to vent my feelings, clarify my beliefs and opinions, and to get advice and support. I cannot wait to call my boyfriend by the end of the day to self-disclose to him about my day; tell him how I felt about my classes, or if I am stressed. It feels so good to have someone like him to always be there for me, and tell me everything will be okay. He offers me advice on how to help me de-stress. He cares about my opinions and beliefs, and is always there to support me. He listens, which is the most important thing when I feel the need to have someone to talk to. I also self-disclose to him to encourage him to disclose to me.

Here is an opportunity for Gina to add to a thick description by providing specific instances of venting feelings, sharing opinions, or helping her to de-stress. The reader needs stories and examples to see her explanation in action and how the actions support her interpretation of the theory.

My boyfriend sometimes has a hard time expressing to me how he feels, so I am sure to encourage him to tell me. He knows I won't tell anyone else, our conversations are between us two only. I have to work on getting him to open up to me more often, because I can tell when something is bothering him, I just have to get him to talk about it with me. Second, I self-disclose because we trust, care and support one another. The most important reason I self-disclose to him is to get his support. I need him to tell me everything will be fine, and know that he believes in me. We are at a point in our relationship where I can self-disclose to him about anything, because we have that trust.

The ways in which I may avoid self-disclosing to my boyfriend are only if I cannot find the opportunity (not the right time or place), or if I cannot think of a way to self-disclose. There are some times when I want

to self-disclose, but we will be in a public place, or with other people. I only want to self-disclose to him, I do not want others to hear. A reason for not disclosing is if I can't think of a way to self-disclose; sometimes, I cannot think of the right way to say what I am trying to say. I may also avoid self-disclosing if I feel I do not want to hurt him by saying something wrong that will make him upset with me. If I say something in the wrong way, I may be misunderstood. This has happened before, when I mentioned something that I felt was no big deal, but he took it more seriously, and got mad over it. I try my best to avoid these types of situations, so I am careful as to when and how I self-disclose.

> Again, specific instances and/or examples will help strengthen her thick description. Thick description is critical for any form of ethnography.

Self-disclosure is necessary, and important in order to sustain a healthy, loving, romantic relationship. I self-disclose to my boyfriend as a way to get to know each other better, and as a way to learn about ourselves. We self-disclose to gain each other's trust, the most important aspect in a loving relationship. We gained, and continue to gain trust with one another through self-disclosing often. I self-disclose to my boyfriend as a means of catharsis (get something off my chest), self-clarification, and self-validation. There would be many problems in our relationship if we had problems self-disclosing, because we need to meta-communicate, or communicate back and forth to each other. We must talk to each other, and never run out of things to say in order to maintain our relationship through marriage. The more self-disclosure and meta-communication we have as a couple, the better our marriage will be.

> Gina may have inadvertently provided a level of thick description when she shifted from describing a girlfriend/boyfriend relationship to a married-couple relationship.

My relationship with my roommate is in the initiating/experimenting stages of coming together. We were still getting to know each other freshman year, so our self-disclosure was limited. After two years of knowing each other, we are more comfortable with each other, and self-disclose more often.

> Gina could be clearer with her description of her roommate relationship. We can infer, but not be sure, that they have been roommates for two years since being freshmen.

The most important reason for me to self-disclose to my roommate is to get advice, support, or assistance from her. We both have boyfriends, and that connection makes it easier for me to self-disclose. I can self-disclose with her easily about him and my relationship problems. We both have the same little arguments with our significant others. We are able to give each other advice about how to deal with those problems. We are learning to support each other. I also self-disclose to her as a way to vent my feelings, especially about school. I am able to self-disclose about my course work, as well as my relationship with my boyfriend. Since we are roommates, we share our food and living space.

As a part of the experimenting stage, we go places together, like for meals, and for activities, such as yoga. She is fluent in Spanish, so she is able to help me with my Spanish homework, and is always willing to offer assistance. I am able to help her with her English homework, since I am good at editing papers. Slowly, through self-disclosure, my roommate and I are learning to care about, support, and trust one another.

> The discussion of yoga, Spanish homework, and the English homework helps to build thick description and provide insight on their relationship.

My main reason for not self-disclosing to my roommate is because I do not want what I self-disclose to be told to others. I may not self-disclose because I feel I may not get the support I need after I self-disclose to her. I am still afraid of being misunderstood, or hurting her if she herself is in a difficult situation. I do not want to impose on her too much information, where she feels that she can't self-disclose back to me. Sometimes, I cannot find the opportunity to self-disclose because I do not want to "bother" her, or distract her. I want to

self-disclose, but feel like I can't when she is preoccupied with homework, her phone, or watching TV.

My relationship with my roommate is still growing, but self-disclosure is important for me to express my feelings, and for us to become trusting of one another. We need to learn to find the right times to continue to self-disclose and become closer friends. I self-disclose to my roommate as a means of impression formation, catharsis, and reciprocity.

> Gina could better integrate how impression formation, catharsis, and reciprocity are defined and evident within her autoethnography. She included the concepts but could provide more guidance to the reader to see how they are apparent within her analysis.

In conclusion, self-disclosure is important in building and maintaining relationships. I see this importance through my romantic relationship with my boyfriend and through my friendship with my roommate. I have to self-disclose, and we have to self-disclose with each other to get to know one another and grow together. The reasons I self-disclose in each relationship differ. Self-disclosure brings two people closer together and creates trust, which is important in a dyadic relationship.

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9 Interviewing

Chapter Outline

What Will I Learn About Interviewing?

This is a photo of Stephen Croucher in Kolkota, India in 2009. Stephen was attending Durga Puja festivities. Durga Puja is an annual Hindu festival celebrating the Hindu Goddess Durga. For many Hindus, particularly those in West Bengal, this is the biggest festival and cultural event of the year. Durga Puja celebrations are held around the world as Indians migrate from India to multiple corners of the world. The festival takes place during a six-day period, during which large pandals, or temporary structures made of bamboo and cloth, are made. Some of these pandals are very simple, while some are extremely elaborate. The purpose of the pandals is to house the stage where the Durga idol stands; the idols are almost entirely made of clay and paint. During the festival, worshipers enter the pandals and worship the idols. At the end of the festival, the idols are taken to a local river and "given" back to the river. As a communication researcher and as someone who greatly admires Indian cultures, the celebration of Durga Puja has always fascinated Stephen. Stephen learned that some Indians celebrating Durga (the Goddess) enhanced their sense of "Indianness." The festival gave them a chance to celebrate their culture, history, and/or being Indian. For others, the celebration was just a chance to drink and be merry with friends. A communication scholar might approach Durga Puja and look at how this celebration relates to an individual's identity (Collier & Thomas, 1988; Cupach & Imahori, 1993; Ting-Toomey, 1993, 1999). The scholar could ask if the celebration of holidays and identity are possibly related to one another. In fact, Noth (1995) argued that the two are related. Such a relationship could be explored through a variety of research methods (e.g., ethnography, focus groups, and statistics). The method we explore in Chapter 9 is in-depth interviewing.

Interviewing Defined and the Different Approaches to Interviewing

Interviews are widely used in communication, the social sciences, the humanities, business, and other fields of inquiry to gain an understanding of cultural, sociological, psychological, linguistic, and consumer behavior

(Briggs, 1986; Giles, Bourhis & Taylor, 1977; Hall, 1989; Neuman, 2011). The purpose of interviewing is to ask questions and get answers from the participants involved in your study in order to discover knowledge. Interviewing has three traditional approaches: structured, semi-structured, and unstructured. No matter which approach a researcher may use, use of the interview as a data collection method should be guided in some way by theoretical inquiry (see Chapters 2–4 if you need a refresher on the relationship between theory and method).

Structured Interviews

A structured interview is *very structured,* hence its name. With this type of interview protocol, the interviewer: 1) prepares all the questions ahead of time (called an interview guide); 2) asks each participant the exact same questions in the exact same order; 3) has few if any open-ended questions in the interview guide (such questions allow the participant too much room for variation from an interviewer's script); and 4) does not insert personal opinion into the interview (e.g., by agreeing or disagreeing with a response).

> "How do I prepare questions?" This is a common question for many students conducting interview projects. We recommend the following. First, you should have some understanding of a theory or context you are interested in studying. Second, from that understanding, think of some key issues you are interested in studying. Third, ask yourself: what questions do I think I need to ask to better understand my area of interest? Fourth, write down these questions and see if they help you better understand what you are interested in. Fifth, if your list looks too long, then most other people probably would not be interested in answering them all. So, you might want to cut it down. Sixth, revise the questions to make them conversational in tone; we will talk more about how an interview is a conversation. In the case of Stephen's Durga Puja project, he did extensive reading on identity, religious holidays, and India. He determined that he was interested in the relationship between Durga Puja and religious identity in India. Third, he asked questions including: 1) how is Durga Puja part of being Bengali? 2) is it important to celebrate Durga Puja? These easy-to-understand and very open-ended questions helped Stephen better understand the holiday, identity, and India.

Self-administered questionnaires (self-reports where people write down their answers) are a type of structured interview (Kvale, 1996). Other typical types of structured interviews include telephone interviews where the interviewer fills in the participants' responses, and Internet-based interviews with closed-ended options (a popular host for these is Survey Monkey). Another type of structured interview many of us have experienced is an initial medical interview. In these kinds of interviews, health professionals have a set list of questions they want to ask, and in a set order. The benefits of structured interviews are: 1) the individuals conducting these kinds of interviews only need to be trained to follow basic data collection instructions; 2) less of a relationship is generally developed between the interviewer and participants; and 3) data collected is considered by many who conduct this type of research to be more reliable (Patton, 1990; Warren & Karner, 2005).

Semi-Structured and Unstructured Interviews

Semi-structured and unstructured interviews are, in some ways, fairly similar to one another. First, the interviewer and participant have a formal interview where they meet with one another and chat about a specific topic or topics. In these types of interviews, the interview is more of a conversation than a one-way process like a structured interview. Types of semi-structured and unstructured interviews include narrative interviews or interviews where someone collects a person's life history. The choice of venue for the interview is often, but not always, agreed upon by both the interviewer and the interviewee. While many structured interviews are conducted in pre-determined locations, over the phone, and/or over the Internet, many semi-structured and unstructured interviews are conducted in mutually agreed-upon locations. Agreeing upon a location for an interview makes participants feel more comfortable about the entire interview process (Patton, 1990).

Second, semi-structured and unstructured interviews are similar since the interviewer has developed an understanding of the setting or the context to allow the majority of the questions to be open-ended in nature. The questions are written to allow participants to answer in a variety of ways. An interviewer will, for example, ask a few questions requiring a "yes" or a "no" response. This is where the similarities end.

Researchers who conduct semi-structured interviews combine techniques of structured and unstructured

interviews. The interviewers typically prepare a flexible interview guide to help guide the conversation with their participants. The guide (or list of questions) is flexible to allow the interviewer to follow the flow of the conversation (e.g., if something is important to the participant, the interviewer can spend more time on the subject than something else on the guide).

Individuals who prefer to use unstructured interviews generally do not have an interview guide (a prepared series of questions). The researcher will instead spend time building rapport and allowing each participant to shape how they want to talk about the subject of the study (Briggs, 1986).

Patton (1990) states that building rapport during the interview process is important. He defines rapport as showing "respect [for] the people being interviewed, so that what they say is important because of who is saying it" (p. 317). The building of rapport can be done in many ways. When Stephen was conducting research in Montreal among Chinese shopkeepers, he would spend a great deal of time browsing the participants' shops before he began the interviews (Croucher, 2003, 2008). Stephen used the information he gained from browsing the shops, what they sell, prices, etc., to establish rapport at the beginning of the interviews. Asking the interviewees about their businesses showed them that he was interested in their stories as immigrants and shopkeepers, and in their businesses. Stephen tried (and continues trying) to appear professional but not too formal, which may intimidate his interviewees.

> This could be tricky in India. Even if you are from India and conducting emic research, it can be hard to establish rapport with individuals. Most researchers start conducting (or only conduct) their research among people they know, such as family and friends, or rely on student samples. If you are conducting your research among family and friends, you should already have rapport. If you are conducting your research among students, you will need to take some steps to establish rapport; however, students often are given an incentive to be involved in the interview and so the establishment of rapport should be relatively easy. If your interview involves individuals you have not had previous contact with, you must take steps to show them that you are interested in their stories. Why else should they share the stories with you?

Semi-structured interviews are typically used: 1) when interviewers only have one chance to meet with a particular participant and/or are meeting with many participants in the field, and 2) ethnographic observation can precede the interviews (Bernard, 1999). Unstructured interviews, on the other hand, are often employed when researchers: 1) plan to revisit the same participants on multiple occasions, and 2) are open to having the participants influence their understanding or approach to the subject or context (Briggs, 1986). Generally, researchers will ask participants if they can make audio or video recordings of semi-structured and unstructured interviews. In-depth note-taking is always a good idea during interviews, even when permission to record is granted. A researcher can jot down observations and insights which may not be as apparent on a recording. Your notes are also your backup in case the recording files are damaged.

Figure 9.1 Comparing Interview Types

Structured	Semi-Structured	Unstructured
All questions are prepared ahead of time	A main set of questions is prepared	No pre-prepared questions
Each participant is asked the same set of questions	Follow-up questions are flexible and may not be asked of each participant	Questions may change for each participant
Questions are asked in the same order	Question order may change as interview progresses	No particular order to any questions asked in the interview
No variation from the interview script	Interview script is flexible	No interview script is used
Uses mostly closed-ended questions	May use a mix of closed-ended and open-ended questions	More a discussion than a series of questions
Participants have limited range of responses	Participants have a mix of response options	Participants have a maximum range of responses available

Data can be fairly straightforward to analyze	Data is a mix of responses and will require careful analysis	Data can get messy and be difficult to analyze

Both semi-structured and unstructured interviews offer participants a chance to openly express their opinions on the issue at hand. The open expression of views can provide what Geertz (1973) called thick description. Thick description is an in-depth understanding of a cultural or setting provided by the members of the culture and captured by others (researchers and journalists). Semi-structured interviews offer interviewers the opportunity to prepare a flexible interview guide before the interview, which can make the interview process a lot easier.

Now that you have an understanding of the different approaches to interviewing, the next section of the chapter discusses the types of data typically used in interview projects.

Interviewing Data and Data Collection

When you are collecting interviews, whether structured, semi-structured, or unstructured, you must ask yourself: what is my data? Your data—what you are analyzing—will likely be spoken or written words. If you are conducting semi-structured and unstructured interviews, the data is almost always the spoken word. Structured interviews might use the written word if the participants completed a questionnaire or survey. You will need permission from your participants to make audio or video recordings of the interviews. Your data consists of the transcripts of the interviews and any notes you take during the interviews.

Transcription of interviews is a very individualized process—meaning everyone does it differently. Here are some tips to help make the process easier. First, if you are audio recording your interviews, various software programs can make transcribing a lot easier (e.g., Interact-AS, NCH Software, Nuance, Vocapia, VoiceBase). These programs often work in conjunction with a foot pedal and you can stop and start the conversation while you transcribe. If you don't want to or can't buy one of these programs, you can still transcribe while listening to an audio file. You will need to do a lot of stopping and starting to make sure you get all of what your participants say on file. Second, we have found it very beneficial to transcribe interviews shortly after they are conducted. In our opinion, transcribing interviews while the interview is fresh in your mind is the best option. Third, insert notes in the margins of the transcription describing what you remember happening during the interview. Trust us, you will forget a lot about the interviews in the future. Transcribing is a time-consuming process, but, in the end, you must get your interview data into some visual form to fully understand it.

Sampling is very important in interviewing (so you may want to review your notes on random and non-random sampling). Depending on the population you are working with, a random sample may prove difficult (if not impossible) to get, thus necessitating a non-random sample. In fact, in most cases, non-random sampling is necessary and useful in interviewing. Stephen regularly interviews Muslim immigrants in France (Croucher, 2006, 2008). Stephen has found that a random sample is nearly impossible in any nation that does not keep records based on religious affiliation (including France). Even when governments track religious affiliation, many individuals are undocumented; other additional variables make a random sample near impossible. Stephen has found convenience and/or snowball sampling appropriate for his research. Often, he has conducted work in cultures where he is not an insider, and a snowball sample has been the only way for him to locate participants.

Another important question is: "how many interviews do I need?" This is not an easy question to answer. Data saturation, or the point at which no new data emerges, is a matter of judgment. As you conduct more and more qualitative research, such as interviewing and ethnography, you will develop the skills to evaluate what you have collected and tell yourself the following: "I have enough information because my participants keep repeating the same information and I'm not learning anything new."

> Thinking back to the relationship between identity and Durga Puja, we should think about what kind of interview we want to conduct, since: 1) we have a fairly strong grasp of identity theories, 2) we may only be able to talk to people once, maybe twice, and 3) we are open to revising or altering our theoretical ideas of the relationship between Durga Puja and identity. So, we might go for semi-structured interviews. Our next step is to look at our data, claims, and warrants for the interview.

With the knowledge of the approaches to interviews, and the types of data used in interviews in mind, the

following section discusses the types of claims used in interview research.

How You Can Make Claims Using Each Approach to Interviews

Researchers who use interviews as a method are generally most likely to identify as interpretive or critical scholars; some will identify with the social scientific paradigm, and some will identify with more than one research paradigm. The key for researchers using interviews (and any other method) is the claims they are trying to make. Two different claims are primarily associated with interviewing as a method—descriptive and interpretive. Granted, other claims can be associated with interviews (evaluative and reformist), and these will be discussed at length in the chapter focusing on critical/cultural studies. Remember, claims can help the researcher define what is occurring in a given context and reveal individual meaning structures within society.

Journalists, for example, continuously ask questions to find out what is happening about daily events. These descriptive accounts of what is happening are the backbone of journalism. From local to national to international events, personal accounts told to journalists in the field, via telegraph to telephone to Skype, add thick description to what is occurring. Along with their descriptions of events, journalists often add what we call the "human element" to the story. Interviewing individuals on the street and getting their point of view on an issue, and how a particular issue affects them personally, helps the reader better understand how those affected by the issue understand it.

During the writing of this chapter, journalists from around the world were sneaking into Syria to report on events in many Syrian cities (outside journalists were banned from entry by the Syrian government). Along with reporting the facts about troop movement, the death toll, the political responses, and human rights issues (defining what is occurring), reporters for CNN, the BBC, and other news agencies were quick to report on how the violence in Syria was affecting individuals on the ground (revealing individual meanings). The individual stories reinforced the reporters' descriptions and showed stories from individual participants.

Communication researchers use interviews to define what is occurring in a setting and to reveal individual meanings. In an in-depth analysis, Philipsen (1992, 1997) explored what it meant to be a member of Teamsterville, a neighborhood just outside of Chicago. Through in-depth semi-structured and unstructured interviews, Philipsen was able to define specific characteristics of masculinity and femininity in Teamsterville. For example, the front porch is for women, the bar is for men, and conflicts were not settled through talking but fighting. In this way, he defined what was occurring. By interviewing various individuals, he learned why certain rules existed for specific behaviors in Teamsterville. The collective reason for these behaviors came down to what the participants understood to be a "code of honor." In this way, he revealed individual meanings.

> As we prepare to conduct our semi-structured interviews, we ask if the participants will let us video record the interviews. The recordings, our interview notes, and a transcription of the interviews are our data.

As with all research, warrants are necessary; therefore, the following section describes the warrants used to evaluate research using interviews.

Warrants in Interviews

The standards used to judge whether your data supports your claims in an interview-based project or study are subjective, especially since most researchers using interviews subscribe to the interpretivist approach. As the purpose of interviews is generally to define what is occurring in a given setting and/or reveal individual meanings, warrants for interviews address the ability of the researcher to describe multiple realities. Therefore, researcher credibility, adequacy, and coherence are key issues to consider (Lindlof, 1995; Miles & Huberman, 1994; Strauss & Corbin, 1998). The credibility of the researcher is an important standard by which interpretive research is judged because the researcher is the instrument through which interpretations and meanings are made (Patton, 1990). Components used to determine researcher credibility include level of researcher training and experience, the researcher's degree of membership in the social context, faithfulness or coherence, and reflexivity.

Training and Experience

Unlike research conducted through a discovery approach, where issues of reliability and validity are paramount to determine the effectiveness of an instrument and or experiment, the researcher is the instrument in the interpretive approach. Therefore, your level of experience in interviewing is paramount. Researchers conducting and analyzing interviews will develop their techniques and optimize their ability to observe and analyze the experience of their participants with experience. As long as we are aware of what should happen, we all learn some things while in the field. For example, when Stephen first went into the field as a master's student to interview shopkeepers in Montreal, he did not have much experience. However, he was aware of what he should be doing. He had taken various methods courses as an undergraduate and graduate student. Such courses prepared him for this work. Stephen learned quickly that some things he was taught (in books like this) were spot-on accurate. Unfortunately, some things were not quite as clear. Stephen quickly realized the difficulty of taking notes while conducting interviews. His participants found his note-taking rude and his textbooks did not prepare him for this reaction. So, Stephen combined what he learned in the field with what he learned from research method books and courses. Stephen is now theory-aware *and* field-aware: his training and experience developed in tandem. To this day, he is continually expanding his training and experience.

Degree of Membership

When conducting an interview-based project, an integral warrant is your degree of membership. Fitch (1994) states that researchers should be, "deeply involved and closely connected to the scene, activity, or group being studied," while at the same time "achieve enough distance from the phenomenon to allow for recording of action and interactions relatively uncolored by what [you] might have had at stake" (p. 36). The two statements may seem to set up a difficult balancing act. Interpretive researchers who are involved and connected with the social context in which they are working are better equipped to interpret participants' statements and look for individual meanings in their statements, since researchers who are involved and connected with social contexts better understand the participants' lives. However, when a researcher is *too* involved and is unable to achieve distance from the phenomenon they are studying, the lack of distance may affect the interpretation of the study. An individual *too* close to a phenomenon (an insider, for example) could be more likely to tilt their interpretation to a critical perspective (which is perfectly fine, but it is not interpretive), and a researcher could be *too* subjective and therefore less faithful to the results and participants.

In his study of the *Tico Times,* an English-language newspaper in Costa Rica, Spencer (2011) argues that "English-language media outlets could and should be viewed as minority-language media outlets as they are cultural negotiators for tourists, sojourners and other transnational migrants" (p. 31). Spencer spent months observing and interviewing staff members at the newspaper for the project, he is fluent in Spanish, and has spent years traveling and living in Latin and South America. In this study, as in his other work, Spencer makes every effort to be deeply involved with his participants and/or the phenomenon at hand, while at the same time he strives to avoid becoming so involved as to potentially alter his perceptions.

Faithfulness

Morse (1998) states faithful researchers are "meticulous about their documentation," and make sure to "file methodically, and keep notes up-to-date" (p. 67). Simply put, faithfulness means being detailed. When a researcher is in the field conducting interviews, they should ask themselves the following: have I spent enough time in the field, have I interviewed enough people, have I gone over my notes and transcripts enough, and have I conducted enough research to support my findings (Lofland & Lofland, 1995; Patton, 1990)? Answering such questions will help ensure research is thorough and faithful.

Coherence

Other ways to look at coherence are from the point of view of logic and internal validity. When conducting an interpretive study using interviews, a researcher must ask if the results logically support the claims they are making. When our examples are coherent, we are more able to relate our findings to other similar social situations (Fitch, 1994). In a classic example, Philipsen's (1976, 1992) analysis of Teamsterville discussed, among many things, the importance of place and what it meant to be a man. Philipsen provided a plethora of interview examples to illustrate each of his arguments. The arguments emerged from his analysis of the interview transcripts and ethnographic observations. Each of the examples supported the points Philipsen was illustrating. For example,

when Philipsen (1976) discussed the issues of inclusion in Teamsterville, he described how:

> Once a stranger is located, talk might be relatively free, depending on the kind of person he is. "The hillbillies" and "the Mexicans" live within the neighborhood boundaries, but do not, in the eyes of the long-term white residents, really "belong" there. (p. 17)

The fact "hillbillies" and "Mexicans" are not considered to belong in Teamsterville clearly illustrates the point Phillipsen was making about who is and who is not a member of this community, thus adding coherence to his arguments.

Reflexivity

When we reflect on the research process, we consider the research process and our place within it. Different theoretical approaches, values, and interests can all potentially affect the research process. As a researcher, you should consider your position in relation to what you are studying. For example, how can your religious beliefs, age, gender, sex, sexual orientation, political views, and personal experiences affect what you pay attention to the most during an interview? How do these aspects of your identity impact what questions you are interested in asking? These are questions you should personally reflect upon and be cognizant of while conducting and analyzing your interviews.

Since the purpose of our interviews with Indians is to describe how Durga Puja relates to Indian identity, we hope that our participants will discuss how Durga Puja, their identity, and the festival and/or Goddess affect them in some way or another in their interviews. We recognize that our participants will make up just a small sample of Indians; many others think like them and others think nothing like them. This realization is part of the interpretivist paradigm.

The following section describes how to analyze your interview data.

Analysis of Interview Transcripts

A researcher can use various methods to analyze interview transcripts from an interpretive approach. Researchers can conduct a content analysis of their interview transcripts, approach the project and the analysis from a critical/cultural perspective, conduct a grounded theory analysis, or perform a rhetorical analysis. Grounded theory is one of the more popular forms of qualitative data analysis. Glaser and Strauss (1967) define grounded theory as "the process of breaking down, examining, comparing, conceptualizing, and categorizing data" (p. 61). Through the process of inductive coding, themes or "salient categories of information supported by the text" (p. 22) "emerge" from the analysis of texts, instead of being pre-chosen by the researcher. Glaser and Strauss (1967) claim that researchers conducting a grounded theory analysis should follow four steps.

1. Collect data from participants (conduct interviews).
2. Take detailed notes during each interaction (the interviews).
3. Code (write) in the margins of transcripts of interviews the central theme or purpose of each line or passage of an interview. Bernard (1999) recommends using a highlighter to differentiate ideas (themes) that are similar within transcripts and from one interviewee to another. The coding stage allows themes to "emerge" naturally.
4. Memo—or write down—generalized links between what is coded and established theory. The researcher will pull out quotations they have identified from their coding (step 3) to support specific theoretical arguments in the literature.

While Stephen has a strong grasp of Indian culture, he is not Indian. Thus, any of his attempts to understand Indian culture, identity, and Durga Puja are those of an outsider (etic research). We want to be meticulous in our research, so we will make sure we take a lot of notes, and spend plenty of time trying to understand our participants to make sure our representation of their views is faithful. Finally, we will use clear and concise

examples to support our claims to make sure our analysis is coherent.

Once the four stages are finished, researchers sort their memos into broad theoretical categories, which Strauss and Corbin (1991) claim facilitate the making of theoretical arguments and conclusions.

Stephen will want to make sure he uses clear examples from his interviews to illustrate the different ways Durga Puja relates to identity. After sifting through the transcripts, some themes may emerge that relate to Collier and Thomas' (1988) or Ting-Toomey's (1993, 1999) conceptions of identity. Stephen's job is to use examples that coherently relate to theory.

Summary

This chapter was a how-to guide to interviewing as a research method. As seen in the chapter, interviewing is generally approached from the interpretive or critical/cultural paradigm. We hope that after reading the chapter, and the accompanying student paper, you have enough know-how to conduct your own study using interviews. The next chapter, Chapter 10, contains a how-to guide on focus groups.

Key Steps & Questions to Consider

1. Choose your topic and research it.
2. Choose your population.
3. How will you access this population?
4. Are you doing a random or non-random sampling?
5. Is your questioning going to be structured, semi-structured, or unstructured?
6. How many questions are you going to ask?
7. How many people are you going to interview? This is a hard question to answer. There is no magic number of interviews you need to do to reach data saturation.
8. Before you entered the field, did you get approval from your Human Subject Review Board or Institutional Review Board?
9. Remember rapport!
10. Should you tape/video-record the interviews or not?
11. Remember you will need to transcribe the interviews (or have someone else do it for you). This takes a lot of time but it makes analysis of the interviews so much better as you will better know what you have in your data!
12. Self-reflect on your position as the researcher. Are you a part of the group you are studying or an outsider? This self-reflection is always helpful as it aids in uncovering meaning.
13. Look through your transcripts for either pre-determined themes or emergent themes. Conduct your grounded theory analysis.
14. Support these themes with coherent examples. Continuation of your grounded theory analysis.
15. Throughout this whole process you may have already been writing some of your research paper (analysis of literature for example). If not, start.

Activities

Activity 1: Identifying Interview Questions. Type "interview questions" into an Internet search. You will get millions of results. Make a "top 10" or "top 100" list of interview questions. Work through the list and identify which questions work best with a structured, semi-structured, or unstructured interview. You can divide the class into groups with each group working through different lists (and with millions of hits, you will have no shortage of lists available!).

Activity 2: Practice Interviewing. Divide the class into pairs. Have students interview each other using a few of the interview questions from Activity 1. The students can conduct brief interviews, rotating to a new partner every 5–10 minutes (and switching between being interviewee and interviewer). How did the students establish rapport

in each interview? What do the results from the interviews reveal?

Activity 3: Analyzing Interview Data. Pick a "riveting talk" from TED.com. Select a communication theory which relates to the TED talk. Treat the TED talk as interview data. Conduct a grounded-theory analysis. See what themes and patterns "emerge" from the talk. For a challenge, try transcribing the TED talk! Try dividing the class into groups with each group analyzing a different TED talk.

Discussion Questions

1. How would the student's data and analysis change if he or she switched from Likert-scale questions to open-ended questions?
2. Discuss how different sampling approaches will affect the student's data and results.
3. Discuss possible communication theories, which may tie in with the student's paper. How will the inclusion of theory or theories in the study make the research stronger?

Key Terms

Data Saturation
Grounded Theory
Interview Guide
Interviewing
Rapport
Sampling
Semi-Structured Interview
Structured Interview
Thick Description
Unstructured Interview

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Undergraduate Interviewing Paper

No Matter the Letter, We're All Greek Together

Heather Kerr

Freshman year of college is an exhilarating, one of a kind experience for students. Most freshmen are 17 or 18 years old living on their own for the first time. This major life change usually leads to students reevaluating and reworking their social identity. Some students may rely on behavior that has worked for them in the past. Others may emulate behavior they have seen work for others in high school. Still more seek social acceptance and validation from their peers by joining clubs and organizations. Perhaps the organizations with the worst reputation in many colleges are the fraternities and sororities. Despite years of negative media portrayal and assorted hazing scandals across the country, thousands of students continue to pledge their lifelong loyalty and define their social identity with them every year.

Heather has started with a strong introduction, which sets the context for her study.

I am on my journey to understand the broad correlation between Greek life and social identity and how wearing letters (clothing usually t-shirts with the Greek letters of an organization) affect one's sense of social identity. I decided the best way to understand this would be to go directly to the source. My study consisted of eight willing participants from three different organizations. Four participants were boys and four were girls. They ranged in age from 18 to 21. Every grade was represented with one freshman, four sophomores, two juniors, and one senior. I met with each participant at their convenience for an interview. Each interview lasted between 10 and 15 minutes. I had a list of approximately eight questions but went in with an open mind and asked follow up questions whenever I deemed necessary depending on participants' answers. Instead of recording the interviews, I went with a pen and paper to take notes. After my final interview was completed, I had nearly six pages front and back of notes. Each participant chose an alias and all information pertaining to this study were kept in a private location accessible only to myself.

Heather is not clear if she belongs to a Greek organization. The reader does not know her *degree of membership* within the organizations she is studying. Heather provides good demographic information on the people she interviewed, but is less clear how the participants were selected for the study. Standards for selecting interviewees are best if set before the interview process begins. Sometimes the selection process needs to be adjusted as the selection process proceeds, in which case the researcher acknowledges the variation which occurred and why it was implemented. It appears from her description that Heather is using a semi-structured approach. She can strengthen her paper by describing the approach she is using instead of leaving it up to the reader to infer the interview protocols. Finally, Heather clearly states her method of data collection (pen and paper).

The theory I was interested in testing was Social Identity Theory. Social Identity Theory was developed in the late 1970s by Tajfel and Turner (Mcleod, 2008). Tajfel and Turner proposed a system of three mental processes involved in determining whether a person is part of the "in" group or "out" group (Mcleod, 2008). These groups are extremely important because they give the people who belong to them a sense of pride and self-esteem. They also provide a sense of belonging and contribute greatly to social identity. People divide the world into groups of "us" vs. "them" because it helps us understand things better. By enhancing the status of our own group and diminishing the status of opposing groups, we increase our own sense of self-worth (Mcleod, 2008). This division into groups of "us" vs. "them" is the first step in Social Identity Theory, also known as categorization.

The second stage is social identification. In this stage, people adopt the traits and behaviors they attribute to their selected group (Mcleod, 2008). For example, a new member or pledge of a Greek organization who knows nothing of Greek life aside from what he or she has seen in *Animal House* or *Van Wilder* movies would

most likely drink heavily and engage in risky behavior at parties or other social events. This type of behavior may not be the norm for all Greek organizations but because the new member may not know otherwise, they choose to act this way in an attempt to fit in. If this is not the way the rest of the group behaves, the individual will usually catch on quickly and adapt his or her behavior again to better match the rest of the members.

The third and final stage of social identity theory is social comparison. Now that the member has identified and begun to act similarly to the rest of the organization, he or she starts comparing his or her group to other groups (Mcleod, 2008). Since people's measure of self-worth relies so heavily on how their group compares to other groups, competition and prejudices arise (Mcleod, 2008). It is extremely important to be aware that once groups have been labeled rivals their standing is critical for its members' self-esteem (Mcleod, 2008). These rivalries tend to become exacerbated during the spring semester when many colleges including Marist hold their annual Greek Week challenges. Greek Week at Marist College is a week of events such as a belly flop contest, relay races, pop tab collection, a talent show performance promoting Greek unity, as well as other events organizations can use for winning points. At the end of the week, the fraternity and sorority with the most points are dubbed Greek Week Champions and the prize is bragging rights for the next year.

Heather provides a strong explanation with appropriate examples of the theory she is using to understand her interest in the relationship between Greek life and one's social identity. However, the reader is not provided with an explanation of how Heather plans to process her interview data. The reader is not sure if she is using grounded theory or a different interview analysis approach.

When asked to describe their respective organization in three adjectives, members of the same organization had similar results. The brothers of Alpha Phi Delta, the Delta Theta chapter I interviewed all thought their organization was hardworking, welcoming, and motivated, or used close variations of those adjectives (Chaz, Chunk, Fink, personal communications, 2011). The sisters of Kappa Kappa Gamma, Zeta Chi chapter generally thought their organization was intelligent, classy, and supportive (Cookie, Forge, Luce, Procs, personal communications, 2011).

The reader does not know if Heather is using her participants' real names or if she is using pseudonyms. Confidentiality and anonymity are an integral part of the research process. The use of pseudonyms is the appropriate approach and Heather could acknowledge their use in the paper.

Six out of eight participants reported major positive changes in their self-image and self-worth since joining their respective organizations. Girls were more likely to admit to deeper emotional connections and reported feeling "lost," "having trouble finding people [they] clicked with," and unsure of "having a group of friends that would be with [them] forever" without their organizations (Cookie, Procs, personal communications, 2011). Boys, on the other hand, were more likely to feel "like any other kid" (Fink, personal communication, 2011) and be less emotional about Greek life giving them "more of a sense of purpose and belonging" (Chunk, personal communication, 2011). Only one participant reported Greek life "has not had any impact on [her] self-image" (Forge, personal communication, 2011).

Heather is effectively using *thick description* to support her analysis of the interview data.

Every participant reported wearing their letters at least once a week (Chaz, Chunk, Cookie, Fink, Forge, Luce, Procs, Turtle, personal communications, 2011). One participant reported wearing letters "as often as possible" (Chaz, personal communication, 2011) and another reported carrying a tote bag with the letters of her sorority on it every day (Luce, personal communication, 2011).

Despite the obvious pride in one's organization, there was no evidence of blatant dislike for members of other Greek organizations or non-Greek students. One participant claimed to not have an opinion because she did not feel everyone had to be involved in Greek life (Forge, personal communication, 8 December 2011) but the general consensus was pity when non-Greeks miss out on opportunities Greeks may experience:

> I certainly don't think anything negative about people outside of Greek life. I think they're missing out on some absolutely wonderful

> aspects and everybody could benefit [from it] but I also understand why people are hesitant to join after the way [Greek life] is portrayed in the media … it looks like drinking, hazing, and being [sexually promiscuous] but it's really so much more than that. (Procs, personal communication, 2011)

Even the rivalries between organizations seem relaxed. "I feel connected [to members of other Greek organizations] because they are part of a sisterhood as well" (Cookie, personal communication, 2011). I believe the attitudes come from the idea of Greeks wearing their letters 24/7. "I'm still a brother and as long as I am I will represent [my organization] as best I can" (Fink, personal communication, 2011). The negative stigma against Greek life, especially fraternities, makes students even more conscientious of their behavior and determined to turn opponents into advocates:

> Not all Greeks are the same. We are as diverse as the population, so one bad experience does not represent all of us. That would be like saying that all lacrosse players are rapists because a few Duke Lacrosse players were accused of it. (Chaz, personal communication, 2011)

My research concludes little correlation between physically wearing the letters ΚΚΓ, ΔΦΑ, or TDX across one's chest and social identity. The members of these organizations all seem to realize, especially at a school as small as Marist College, they must be conscientious and responsible for their words and actions at all times. They work hard to maintain and protect their own reputation and to build up Greeks collectively.

Heather gives a brief, yet effective, interpretation of what her analysis means for social identity—at least on the Marist College campus. Interview data and analysis can be limited to the context in which the interviews occurred. Extrapolating to other campuses is problematic. However, exploring the issue on other campuses opens up opportunities to engage in additional communication research!

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10 Focus Groups

Chapter Outline

What Will I Learn About Focus Groups?

During every election season, most of the news channels (e.g., CNN, Fox, MSNBC) consult focus groups of voters who discuss the candidates before, during, and after any candidate debates. A moderator is in the room while participants watch the debate. The moderator asks questions about the issues and the candidates. The questions help the news channels make claims about what issues Americans care about and about the candidates themselves, including who "wins" debates.

The candidates run their own focus groups. All major candidates have consultants who develop campaign materials (e.g., slogans, advertisements, and even campaign colors). The materials are generally pre-tested on focus groups so that consultants can get feedback from a group, make alterations, and then release the materials to the general public. Focus-group research is standard practice in advertising and filmmaking (Morrison, 1998). Researchers interested in political communication could easily employ focus groups to study a variety of communication theories and/or communication situations. For example, a researcher could use focus groups to look at different ways candidates try to persuade voters using theory of planned action (Ajzen, 1985), social judgment theory (Sherif, Sherif, & Nebergall, 1965), elaboration likelihood model (Petty & Cacioppo, 1983), or inoculation theory (McGuire, 1964: Pfau, 1992). In this chapter, you will learn how to use focus groups to conduct research.

What Is a Focus Group, and Why Use One?

A focus group is a research method where people are collectively interviewed about a specific topic. Methods for conducting focus groups can range from formal interviews, to informal interviews, brainstorming sessions, and group interviews in the field (Lindlof & Taylor, 2002). Like interviews and ethnography, focus groups typically fall under the interpretive or the critical/cultural paradigms. As with the previously discussed qualitative methods, two types of claims are generally associated with focus groups as a method: descriptive and interpretive. Focus

groups are led by a moderator (sometimes called a facilitator). The moderator leads the discussion among the participants in the group. We will talk more about the role of the moderator shortly.

Focus groups are used extensively in mass communication and advertising (Lindlof & Taylor, 2002), and have recently gained prominence in the social sciences (Berg, 2009). By broadly exploring the thoughts of a group of people on a specific subject of interest, focus groups are able to identify "general background information about a topic of interest" (Stewart, Shamdasani, & Rook, 2006, p. 15). Today, researchers use focus groups for a variety of research projects.

> Peterson, Antony, and Thomas (2012) explored how "successfully home stable individuals" remain home stable and factors that could challenge their stability. Their study brought forth numerous thoughts about what individuals consider to be the causes of homelessness. Sanders and Anderson (2010) analyze the conflicts that arise between faculty and students over disappointing college or university grades. The results reveal that discussions about grades could be uncomfortable, yet also positive and constructive.

Focus groups explore general information about topics for a variety of reasons. First, moderators in focus groups usually have a list of questions to guide the group. The questions help the moderator elicit information from the participants. Since a number of participants are in the group, multiple points of view should emerge during the discussion. Second, the moderator's questions are a starting point. Focus groups generally take on a life of their own (if run well by the moderator).

Sometimes, focus groups can be used to help "generate important insights into topics that [are] not well understood" (Berg, 2009, p. 165). Often with qualitative methods like interviews and ethnography, researchers are trying to learn more about constructs and how they occur in real life. Researchers are able to tap what Carey (1994) calls the group effect. When group members interact, new data and insights emerge which may have been less accessible at the level of the individual. Group interaction can lead to more in-depth understandings of communication phenomena.

> The following is an example of how the use of focus groups can tap a variety of opinions. Shyles and Hocking (1990) found that United States Army troops were not all that fond of the army's "Be All You Can Be" campaign. Through the use of 12 focus groups, the authors showed how active members of the army saw the campaign in a negative light and thought that it might lower troop morale. Shortly after Shyles and Hocking completed their data analysis, the advertising firm that developed the ads contacted the authors and were not pleased with their results. Shyles and Hocking discussed the data with the firm and "went so far as to offer to conduct one of these replications at the ad agency's expense. The conversation ended abruptly, and not only were Shyles and Hocking not used, neither researcher ever again received a communication from the advertising agency" (Hocking, Stacks, & McDermott, 2003, p. 402). A few years later, after new ads were aired with the "Be All You Can Be" slogan, the ads were modified; the modifications fit some of the issues noted by Shyles and Hocking.

How to Prepare for a Focus Group

In order to generate insights, a researcher must prepare a well-designed focus group. One must consider six important components when preparing to conduct a focus group. First, as with all of the other forms of research discussed in this textbook, you need to be sure you have a research agenda for your study. Second, determine if a focus group design is appropriate for your study. For example, while a focus group could be used to collect data on people's public behaviors, or ask individuals about their self-disclosures, or study how conflict styles differ across age groups, other methods may produce more fruitful findings.

> Let's say you want to explore the effectiveness of a new campaign slogan developed for a political candidate. A survey could work, but will only take a snapshot of people's feelings at one point in time. An ethnographic approach could work, but observing people reading a slogan or hearing it in an ad will not really provide you with much information about how potential voters feel about the slogan. Individual interviews could work,

but will lack interaction between potential voters; a focus group really is the best method for this study. In a focus group, voters talk to each other, and you—as the researcher—can use their interactions and answers to your questions as data.

Once you have decided on the focus-group approach, you need to determine how many focus groups you will conduct and how many people you will put in each group. There are debates over both of these questions. Here's the rule on the minimum number of focus groups: never settle on just one focus group. You need more than one focus group so you can compare the results from each group to the other. You are able to see emerging trends in your data when you conduct multiple focus groups. Let's return to our political campaigns scenario. You may see focus-group members consistently point out strengths and weaknesses in a political slogan, regardless of who is in a group. Lindlof and Taylor (2002) argue that a sound study should have a minimum of two to three focus groups.

You want between 3 and 15 people in each focus group. However, when you have only three people in a group, you have less chance of seeing the group effect (Carey, 1994) because of the low number of members interacting. However, a group which is too big can become hard to handle. We talk more about this later. Many researchers who use focus groups typically want 6 to 12 people in a group (Lindlof & Taylor, 2002). Just like interviewing and ethnography, you need to find your participants. Do you post flyers in significant places, work your gatekeepers, use e-mail lists, or use social media? Use the best means available to locate your participants. One of the things we talk about later is how often your participant selection for a focus group is non-random, including convenience or purposive sampling. In a study using a focus group, you should try to include people with a variety of opinions in order to generate the true group effect, as groups generally include a variety of opinions.

So, set up two or more groups with 6 to 12 potential voters and ask them to look over the new slogan for the candidate. One common technique in focus groups is to show some sort of stimulus material and ask participants to respond to it. In the case of the slogan, you could show the group the statement and record their opinions. In each group, you would try to include voters from a broad range of positions on the political continuum; this way, you can get opinions from multiple perspectives. Including both males and females in your groups is a good way to see how both sexes respond to the slogan. You might want to include people from different ethnic or racial backgrounds. The more diversity you have in the group, the better chance you have of learning more about how the general public may respond to the slogan.

The third important component to consider is whether you are going to pay your participants for their participation. In a research project using focus-group interviews, the participant is actively engaging and spending valuable time with the researcher. Thus, in some cases, researchers may offer participants financial or others forms of compensation for their time (e.g., food, extra credit). To set up a successful focus group, you may need to offer incentives for participation. Incentives for participation are paid or unpaid ways of encouraging people to participate in a study. The type of incentive will depend on your population. Since some focus group meetings can range from 30 to 90 minutes (and sometimes longer), a researcher is taking time from the participants. At the University of Jyväskylä, where Stephen previously taught, some departments offered movie tickets to research participants. Some university departments permit a researcher to offer students extra credit for participation. In advertising research, firms may pay or provide free products for participation. The issue of incentives is something you need to determine and be up-front about with your participants in the informed consent form.

Since you are occupying the time of each of your participants, you might want to consider offering them some kind of incentive for participation. Since these individuals are not undergraduate students, extra credit in a class is not an appropriate incentive. Maybe you could provide them with lunch, movie tickets, a gift certificate for coffee, or something similar in value. If your incentive for participation does not draw in enough participants, you may need to increase it.

Fourth, you need to determine where the focus group will take place. Unlike ethnographies, which take place in the natural setting of the participants, and interviews, which can take place in the natural setting or in a lab, focus

groups almost always meet in a controlled environment. You, as the researcher, determine the place and time for the group to meet. Hocking, Stacks, and McDermott (2003) list a few conditions that explain why focus-group locations are predetermined by the researcher:

> Most focus groups are run at night, with one group following a second by 10-to-15 minutes. Because of the interaction required, most groups run between one and two hours, with at least one refreshment and bathroom break included. Some research companies have two-way mirrored and electronically monitored rooms that you can rent. You need a room that is conducive to communication and not too formal. Preferably you want your participants to face each other, perhaps in a circle around a table. (p. 205)

These conditions make clear why a researcher would want a focus group to meet in a predetermined, controlled location—too many variables cannot be controlled in a natural environment.

So, choose a location that best suits your needs. Some university departments have focus-group or laboratory rooms you can use. Many advertising firms and other corporations have specially designed rooms for focus groups. The key is to develop a plan for where you will do the focus group, keeping in mind: 1) how many people will be in each group, 2) how long each group will run, 3) whether or not you are recording the groups (we will talk about that shortly), 4) how the room is set up, 5) whether or not are there bathroom facilities nearby, and 6) if the location is easy for the participants to find.

Fifth, as discussed in the chapter on interviewing, recording interviews can make data analysis a whole lot easier. With focus groups, your data may involve not just what people say, but also *how* they say it. So you will need to decide if you are going to make audio or video recordings of the groups. You will, of course, need to get permission from the participants to record. We recommend that you record the focus-group meetings and then transcribe the data as soon as possible after conducting each group. Numerous software programs can make transcribing easier (e.g., Interact-AS, NCH Software, Nuance, Vocapia, VoiceBase). Remember, you should still take notes during a focus group even if you are recording. Taking notes will add to your understanding when you analyze the transcripts of the data because you can jot down insightful notes during the focus-group session.

You decide that you are only interested in what the participants say about the slogan. In this case, it is only necessary that you audio-record the focus group. So, you get permission from all of the participants to audio-record the focus groups.

The sixth element you need to see to before you conduct a focus group, and one of the most important ones, is the preparation of the moderator. The moderator is the one who leads the focus group and makes sure the discussion guide is followed. A discussion guide is the program for the focus group. The guide includes your opening and closing statements, and the questions for the group. The moderator uses the discussion guide as a roadmap for leading the group. The questions in the discussion guide are based on the main purposes of the study. The following box contains an example discussion guide. The questions in the discussion guide are only as successful as the moderator. Morgan (1988) describes how a moderator should be a good interviewer and must be a good listener. A moderator should be prepared to adapt questions if participants do not respond to some questions. "Moderators try to achieve a fine balance between enfranchising individuals to speak out and promoting good group feelings" (Lindlof & Taylor, 2002, p. 183). A good moderator has a knack for drawing out quiet participants and politely silencing aggressive or overly talkative participants. Many advertising firms hire moderators with strong communication skills to lead focus groups. Hocking et al. (2003) strongly urge researchers *not* to serve as moderators for their own focus groups, but to hire professional moderators whenever possible. Of course, few student-researchers can afford to hire a professional moderator, so you need to be prepared to moderate your own focus groups.

Sample Discussion Guide for Study on Political Slogan Effectiveness

PARTICIPANT INTRODUCTION

Hello my name is [name here] and I have been asked to lead a discussion today about a new slogan Candidate

X is developing for his/her election campaign. What we are going to do today is watch his/her new advertisement, which includes the new slogan, and then I am going to ask you some questions. There are no right or wrong answers. I am just interested in what you think about the slogan and the advertisement.

Everything you say here will be kept completely confidential. We will be audio-recording the focus group today, and then transcribing the session. The transcripts from the group will be summarized and presented in such a way that no individual could be identified in the future.

What I am passing out to each of you now is an informed-consent form. This form outlines everything that you will be doing today, all of your duties and responsibilities. This form also explains the benefits of this study, how to contact the researchers in case you have any questions or concerns about the study. The form also notes that for participating in this study, which should take about 60 minutes, you will receive a $10 Starbucks gift card. However, if you stop your participation before completion of the study, which is your right, you will not receive the gift card.

One last thing before we get started: I would like each of you to take a name tag and put your first name on it. It can be your real first name or a fictitious one, it is up to you, whatever you feel comfortable with. Can everyone now take a couple of minutes and read over the informed consent, ask any questions you might have, and if it's OK, sign it. Let me know when you have signed it and I will collect it.

Has everyone signed the forms? OK, let's get started. I am going to turn on the audio-recorder now. Can I have each of you say your name for the group and introduce yourself. [THIS IS A GREAT WAY TO GET EVERYONE'S NAME ON THE RECORDER]

[FROM THIS POINT, THERE IS A LOT OF VARIABILITY IN WHAT YOU COULD DO]

I would like you all to watch the following new advertisement that was just developed by Candidate X's team —play advertisement.

FOCUS GROUP QUESTIONS

OK, now that you have seen the new ad, I have some questions for us to think about. [HERE THE QUESTIONS ARE GUIDED BY THE FOCUS OF THE STUDY; WE WILL LIST TWO SAMPLE QUESTIONS. DEPENDING ON HOW LONG THE MEETING IS, REMEMBER TO BREAK FOR BATHROOM ☺]

1. What did you like and what did you dislike about the advertisement?
2. Candidate X in this advertisement is trying to persuade you that he/she is the best candidate for President. How does he/she do that?

[THE GROUP COULD CONTINUE WITH MORE QUESTIONS ABOUT THE ADVERTISEMENT UNTIL THE MODERATOR IS READY TO WRAP UP THE GROUP]

Well, I would like to thank you for your participation in this discussion today. I think we have really uncovered some interesting insight into [name of the advertisement]. As I said at the start, if you have any questions about the study, feel free to contact us via the information provided on the forms. Now, I think it's time to pass out some coffee gift cards. Thanks again.

How to Conduct a Focus Group

If you have taken the proper steps to prepare, then conducting the group is systematic. You should already have your questions designed, your number of groups and participants set, incentive for participation determined, the location reserved, prepared your record equipment (assuming permission is received), and chosen a moderator. When you conduct a focus group you need to: 1) make sure the location is functional, 2) double-check the recording device(s), 3) conduct the discussion using the guide, and 4) analyze the results. First, while you may have a location set for the group, always make sure the location is ready before the participants arrive. This may sound silly, but Dan and Stephen have been involved in research projects (as researchers and participants), where we have arrived and things are not ready. Remember, you are asking for your participants' precious time and

watching a researcher run around in circles setting up the room may be seen as wasting their time. Second, as you will more than likely be recording (audio or video), it is a good idea to check the equipment before the group begins. What a shame if your participants are ready and the technology fails you.

Third, use the discussion guide to conduct the focus groups. The purpose of the discussion guide is to help the moderator(s) facilitate the focus group. If you look at the preceding box, this kind of guide can be modified in many ways to help a well-trained moderator lead a discussion. The moderator is looking for the participants to answer specific questions about issues pertinent to the research subject. However, the moderator does not give the participants answers. Thus, the moderator needs to be open to the participants providing a variety of expected and unexpected answers. This is one reason why the discussion guide needs to be somewhat flexible in its format. Like open-ended interviews, discussion guides should be flexible, to a point, meaning that the moderator (and the discussion guide) try to remain on the same research theme while allowing participants to talk about issues important to them and relevant to the group's subject.

Fourth, once a focus group is complete, you need to analyze the transcripts (your data). You can analyze qualitative data in numerous ways. For example, you could conduct a grounded theory analysis (Glaser & Strauss, 1967; Strauss & Corbin, 1991), a metaphoric analysis (Gill, 1994), a conversation or discourse analysis, or a content analysis. We will talk more in-depth about some of these methods in later chapters in this text. You should also consider the notes and observations of the moderator as an important part of your analysis. A well-trained moderator should be versed in taking good notes and understanding human behavior. Talk to the moderator(s) and find out what they thought about the groups and use their insight as one kind of data to help your analysis.

With our advertisement for Candidate X, we decide on our meeting date for the first focus group, recruit our participants, compose our discussion guide, select our moderator, procure our coffee gift cards, and have the recording device all ready. We (the advertising firm) show up an hour beforehand with the moderator to make sure that the location is all set up and ready for the session. We then do a test run of the audio-recorder (it works great!). Then the participants arrive. The moderator reads the introduction and goes through the script on the guide. After the session, which was a lively discussion about the advertisement by the way, we go back to our firm and get a debriefing from the moderator on their thoughts about the participants and the session. We add their notes and thoughts (as data) to our transcripts. We are still debating whether we will analyze our data using a content analytic approach or a discourse analytic approach, but we will decide that soon. Tomorrow, we have another session; our second of six focus groups.

Advantages and Limitations of Focus Groups

Focus groups have numerous advantages and a few limitations. The five main advantages to focus groups are: 1) cost, 2) speed, 3) quantity of participants, 4) ability to reach sensitive populations, and 5) the group effect. The first three advantages of a focus group are closely linked to one another: cost, speed, and quantity of participants (Berg, 2009; Lindlof & Taylor, 2002). Focus groups often provide an inexpensive and quick way to gather data from a lot of participants. If one conducts three focus groups with seven people in each group, this means the person has collected responses from 21 people at three points in time. Consider the alternative of conducting 21 individual open-ended interviews on 21 separate occasions. The data for the three focus groups will likely take less time to collect. The cost of data collection (e.g., transportation, recording, incentives for participation) may end up being less for three focus groups than for 21 individual interviews. The fourth advantage of focus groups is the ability to reach sensitive populations. In many situations, you may want to investigate a sensitive topic, such as sexual abuse. In such studies, participants may not feel as comfortable discussing the issue one-on-one. However, people are more likely to open up about sensitive topics when in the presence of other individuals who have similar experiences (Morgan, 1988). Finally, as previously mentioned, focus groups allow us to tap the group effect (Carey, 1994). When people are together with others discussing an issue, they are likely to bounce ideas off one another and feed from each other. These group interactions will produce more insights into the communication phenomena under investigation.

Focus groups have two limitations you should keep in mind: 1) the moderator(s), and 2) the participants. While the moderator is necessary to facilitate a successful focus group, you must make sure the moderator is well

trained. If the moderator is not well trained and is unable to successfully manage the group, then the focus group could fail. The discussion could stagnate, or some participants may monopolize the conversation, or (worst-case scenario) the moderator could monopolize the conversation and be the only one talking. The role of the moderator really is integral to the success of the focus group. Second, the participants themselves can make or break a focus group. Participants are volunteers. Like Forrest Gump said, "Life is like a box of chocolates, you never know what you're gonna get." Well, participants are like that, you never know what you're gonna get.

Based on the participants in our focus groups brought in to discuss Candidate X's advertisement, we should learn some things about how average voters think about the advertisement. If we have been careful in our development of the discussion guide, particularly in the questions, and chosen a good moderator or moderators, our job should be a success. Focus groups are increasingly used by advertisers, and also by researchers in communication. This qualitative method, if executed properly, can be an effective tool for analyzing how groups perceive messages and how groups interact.

Summary

This chapter was a how-to guide for focus groups. As discussed in the chapter, focus groups are generally approached from the interpretive or critical/cultural paradigms. Hopefully, after reading this chapter, and the accompanying student paper using focus groups, you feel comfortable enough to use focus groups for your own research project.

Key Steps & Questions to Consider

1. A focus group is part of a research method that brings together a group of people to be interviewed about a specific topic.
2. Types of focus groups range from formal group interviews, to informal group interviews, to brainstorming sessions, to group interviews in the field.
3. Focus groups are led by a moderator (sometimes called a facilitator), an individual who leads the discussion that takes place among the participants in the group. Typically, the moderator is not the researcher in charge of the project.
4. The group effect occurs when a researcher is able to tap a multitude of opinions because group members respond to one another's ideas and opinions in a group setting.
5. You should try to conduct at least two or three focus groups, if not more.
6. A focus group generally has between 6 and 12 people.
7. Some researchers will provide incentives for participation in focus groups.
8. Focus groups typically take place in a "lab" setting and not in the natural environment.
9. Audio- or video-recording focus groups is a best practice.
10. The discussion guide is a tool used by the moderator to lead the focus group through a series of questions.
11. Like most qualitative research methods, researchers have many options for analyzing focus group data.
12. Two different claims are associated with focus groups as a method: descriptive and interpretive.
13. Researcher credibility, adequacy, and coherence are key issues to consider regarding warrants in focus group research.

Activities

1. Try a series of practice focus-group sessions. Divide the class into groups of 5–15 students. Each group will select a communication issue and develop a short discussion guide of 3–5 questions. Once the guide is ready, each group will exchange its discussion guide with another group. Each group will select a moderator and, using the discussion guide from the other group, hold a focus group. The process will continue with each group exchanging discussion guides until every group has held a focus group with each guide.
2. The class as a whole can use the data from the practice group sessions and try a practice analysis of the data. What themes emerged from the data collected from each discussion guide?

3. Run a web search for "focus group advertising." Compare how the websites explain focus groups with what you've learned in this chapter. What differences emerge between academic research focus groups and corporate focus groups?

Discussion Questions

1. What types of research questions can be answered with data collection through focus groups?
2. When should a researcher avoid using focus groups for data collection?
3. What limitations should be taken into consideration with focus-group data?
4. What approaches can you take for analyzing data from focus groups?

Key Terms

Discussion Guide
Focus Group
Group Effect
Incentives for Participation
Moderator

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Undergraduate Focus Group Paper

Communicating Emotions through Visual Framing and Influence

Rebecca Rachel Engels

Each individual expresses, processes and interprets emotions differently. My research is constructed around the notion in which we each interpret artwork differently, mainly shocking photographic images by the use of visual framing. I am also interested in the message the photographer is attempting to communicate through their artwork, as well as how our personal interpretations may be influenced by others, especially those who tend to dominate the conversation. According to Rodriguez and Dimitrova (2011), "Many consider audience frames as mental maps people form to cope with the flood of information to which they are subjected everyday. Audiences actively classify and organize their life experiences to make sense of them. These "schemata of interpretation" or "frames" that enable individuals to "locate, perceive, identify, and label" the world around them" (p. 49). This statement reaffirms my thesis: each individual has their own unique framework for interpretation. Although individuals may possess their own opinions and emotions regarding a specific text, photograph or work, their initial response may fluctuate due to the strong opinions of others. I've found dominant individuals or people in a position of power have a profound impact on the views of others. The influential factor some individuals' possess allow them capable of manipulating the perception of other viewers, possibly because of advanced knowledge, intimidation, or ulterior motives.

My research consisted of six photographs, each photograph aiming towards a specific basic human emotion. I had two photographs for death, one for happiness, loneliness, fear, and love. I set up two focus groups from 11 beginner and advanced photography students. I posed two questions regarding each image; what emotions does this image evoke and what emotions do you feel the photographer was trying to induce? Participants were asked to provide answers to said questions by writing down an immediate response, I was able to get the participants initial response to the image without manipulation by others during the conversation regarding the image. After participants gave their initial written response, I conducted an engaging and open discussion regarding each image shown. By doing so, I was able to observe if the conversation was being steered in a certain direction or potentially opinions changing due to the power structure of the discussion. By taking detailed notes throughout the discussion, returning back to them later and comparing them to the participants written answers, I was capable of obtaining honest results from the students both verbally and nonverbally.

> Rebecca sets up an intriguing question in her introduction. She has merged multiple areas of communication—textual, visual, and verbal—into her study. Her use of focus groups to explore the question should produce interesting results.

Literature Review

While initially researching prior work similar to my study, I found minimal research, which was like mine. According to Rodriguez and Dimitrova (2011), "One of the main reasons why there are relatively few studies that employ visual framing compared to textual framing is that there is a great deal of confusion as to how visual frames are supposed to be identified in the first place. To this day, identifying visual frames remains a challenge; the methods of doing so cover the gamut" (p. 50–51). Because of our high functioning society and advancing technology, the general population has grown accustomed to images, which have been manipulated and stray away from reality. Which makes it difficult for viewers to see an image and question whether the image is depicting reality or fantasy. According to Brantner, Lobinger and Wetzstein (2009), "frames can be described as interpretation patterns which serve to classify information for handling it efficiently" (p. 524). Each individual establishes meaning for a certain image, how we organize information stems from life experience and general knowledge.

Brantner, Lobinger and Wetzstein (2009) highlighted the importance and significance of powerful imagery in association with our perception and interpretation of the image at hand. I agree with the notion emotions are easily portrayed through visual stimuli rather than words, although words are arbitrary.

Another interpretation is from Rodriguez and Dimitrova (2011) regarding visual framing. Although images may show reality, certain horrific aspects of reality are not seen by everyone, even attempted to be hidden from society, a dead body for example. A portrait of nightmarish qualities is not something an ordinary photographer would try to capture, unless they were attempting to expose a hidden reality.

> The literature review provides sufficient background for understanding the nature of research conducted in her area of interest. However, be careful of using an article-by-article approach. Look for themes which cut across the journal articles and then organize the review around the themes. Otherwise, you are counting on your readers to figure out how the articles relate to each other.

Methods/Procedures

My method for collecting data are two focus groups. I expect to find each subject's written reaction to each photograph will be similar to his or her verbal reaction to the image. I am curious to determine whether subjects whom are knowledgeable about photography will produce significantly different opinions regarding each image compared to those whom are not as knowledgeable. I will have a threefold analysis of my observations: First, what the subjects initial written reactions were in both groups. Second, the subjects' verbal and nonverbal communication styles when discussing each image. Finally, initial reactions compared to verbal reactions with both groups.

The participants were aged roughly18 to 24 years old, upper-level digital photography students, and basic photography students. The first focus group included the advanced photography students with three white/Caucasian females and one Hispanic male. Students participated at their own will; it was remarkable how much effort the advanced students put forth towards the research. Each student involved provided detailed responses and actively participated in the group discussion administered honest opinions and were incredibly respectful towards one another.

The participants in the second focus group, the beginner students were ages 18 to 21 and had little to no knowledge regarding photography. Most, if not all were freshmen varying in educational backgrounds, majors and belief systems. I decided to incorporate the beginner photography students to obtain a variety of results pertaining to each image. Also, to establish if more influence during the discussion occurred in the beginner students versus advanced students. I anticipated the beginner students would produce original, potentially vague ideas and bring new emotions to the table.

> The method section is fairly clear. Rebecca provides justification for the selection of participants in each focus group. The threefold analysis is well designed and easy to follow. One could replicate the study following Rebecca's procedures. Rebecca could provide more insight into the specific processes used during each focus group discussion. Did she use a structured, semi-structured, or unstructured format? How long was each focus group scheduled to last? And were participants informed they could leave at any time during the focus group, if so desired?

Results

The results I obtained were slightly skewed, but helped me comprehend the significance of an educational background on such a subject versus having none whatsoever. During the first focus group, throughout our discussion each participant derived their own set of unique meanings from each photograph. My method for collecting data consisted of observing the conversation and its progression by taking detailed notes, as well as analyzing the written answers provided by participants.

Photograph number portrayed happiness. Female participants brought up the idea of skin cancer. The male participant thought the girl in the photograph was shy. He noted the light and colors portray sunshine, or happiness.

The second photograph was the first of two images portraying death. The photograph was taken in the Japanese wilderness of a dead body found, possibly a suicide. The male student was already aware of Japanese suicide phenomenon in the woods, something I had not anticipated. He pointed out the sadness of dying alone, a melancholy aspect of this image, an emotion many attempt to regress. The female participants

expressed an extreme depression while viewing this saddening illustration of a human who died alone in the woods.

The third photograph is a bearded man who sits alone naked on a chair in front of a small audience. A female participant verbally expressed the emotion of feeling awkward; she also found the image to be humorous.

The fourth photograph portraying love, did not communicate the emotion of love very clearly I realized. During the discussion, a female participant voiced her opinion of the feeling of betrayal or possibly adultery. The male participant thought the man in the photograph was a customer and the woman was a prostitute because of a half-hearted embrace. Another female participant brought up the notion of despair or potentially false love or mental illness.

The second photograph depicting death was a Vietnamese man about to be shot in the head. The discussion proved to be interesting because many of the students did not initially respond to the photograph with the idea of death. The male student voiced his opinion of possible fear, power, or even control. He had been exposed to the video of the same man getting shot in the head, although did not bring up the notion of death. The female participants felt the photograph was attempting to communicate the idea of war, potentially anger. After allowing participants to express themselves, I quoted the photographer of this image, Eddie Adams, "two people died in that photograph: the recipient of the bullet and General Nguyen Ngoc Loan." After using the word *death* many of the students agreed this image was trying to portray death in its most obvious form, a photograph of a man moments before his death.

The final photograph portrayed loneliness. Not one student voiced an opinion on loneliness throughout the discussion. The female participant brought up the idea of the old woman being desperate. Another female participant found herself coming to the conclusion the woman was suffering, possibly because of a mental illness or a brain disorder.

The beginner students were different from the advanced students in a few ways. There were two males and three females; all students were ages 18 to 21. The beginner students were profoundly more shocked and/or confused when viewing the images in comparison to the advanced students. The written answers proved very useful for the beginner group because answers differed from the group discussion, many words were misspelled, and the responses were much more naive than the advanced participants' written responses.

The first photograph was happiness. All of participants wrote down happy/happiness, three out of five wrote down sunshine or warmth and one male wrote down perhaps the woman in the photograph was sending or receiving a text message. The text message notion was surprising, but after thinking critically for a moment, perhaps this emotion is a reflection of the dominance technology has on our modern society. All of the participants verbally expressed sunshine and/or happiness and agreed the photographer was attempting to communicate the allure of happiness, warmth and sunshine.

The second photograph was the dead body in the Japanese woods, portraying death. Four out of five participants wrote down death or tragedy. One participant wrote down war and murder. All the students were silent at the beginning. None of the participants quite knew what exactly the image was or how they should feel about it. At first, one of the female students began giggling nervously when this particular image was presented. Perhaps the photograph was slightly too intense for the demographic.

The third photograph depicted fear. Most, if not all of the students could not contain their laughter for this image. I understand the fact the man was nude and slightly uncomfortable looking. All of the participants written answers differed, as well as their verbal discussion. One male participant wrote down, "sad because he is frail" for his response to the image. Perhaps the controversy surrounding this shocking image was too much for young minds to bear.

The fourth photograph depicting love did not generate such a response from the beginner group. Only one male student wrote down love, but did not express such an emotion verbally. Each participant wrote down "awkward" or "disgusting." One female student wrote down she believed the photographer was attempting to communicate the vulnerability of love.

The fifth photograph attempting to communicate death was the image of the man getting shot in the head. All of the students wrote down sadness/oppression/suffering. Two of the female students had a similar idea, which the photographer was attempting to communicate the notion of the things happening in other areas of the world. None of the students saw death in the image. Each student seemed unable to associate the idea of

death because the man was still alive in the photograph, Since he was Vietnamese it was difficult for the younger minds to find a common ground with the image. To them it seemed he was just a man in a country, which they did not have any prior knowledge of, therefore could not come to terms with a set emotion other than war and oppression.

The sixth photograph was the old woman clutching the doll in the hospital or nursing home showing loneliness. Each participant expressed on paper the emotion of being lonely, feeling bad for the woman, the aspect of old age, etc. The male students wrote down for the image, "confusion" and "bliss". Perhaps participants wrote these emotions down because the image is very haunting, a true reality of what lies ahead for every human being. All participants agreed the old woman was clearly depicted loneliness in the most obvious form. The discussion continued to a deeper level, one female student expressed seeing her grandmother in the nursing home suffering from memory loss. She disclosed with me how this image reminded her of her grandmother, making her feel sad and empathetic towards the matter.

> The results are interesting, but the picture-by-picture approach through each focus group may make tracking the results awkward. Rebecca can strengthen the results by identifying themes in the results and then writing up the themes. Some of the results may be better laid out in one or more tables. Tables make comparing the results quick and efficient, especially when multiple datasets are involved (e.g., two focus groups).

Interpretation

Through the research, many aspects I did not anticipate surfaced through the discussion portion; the written answers disclosed significantly more personal emotions. While I was initially constructing my project, I was quite convinced the advanced photography students would produce a specific set of results because of their knowledge regarding photography. I assumed some, if not all, would have already been exposed to at least one of the images. I was correct in such a sense, the male participant in the advanced focus group recognized two of the images but derived different meanings than the ones I had established for each one. The emotional responses provided by the advanced students proved very intriguing, participants brought up specific emotions I had not recognized, adding weight to the notion of visual framing differing from each individual.

The results I did find were fairly accurate to the information I anticipated to gain. I understood not all students, especially the beginner ones, would be able to grasp the concept I had assigned to each photograph. Often times, the answers provided by the beginner students differed tremendously from the verbal answers, also something I had expected. Younger minds are more susceptible to influence and peer pressure, maturity only comes with age, knowledge and cohesiveness. I gathered, through my research the idea which we each construct our own meanings for images based on a general knowledge and the aspects of life which we have been exposed.

> Rebecca provides a good interpretation of her results. She draws some insights from the results of her study.

Implications and Conclusions

The participants may have kept certain emotions to themselves for a variety of reasons, perhaps embarrassment or uncertainty of how to process such strong emotions with each image. The scope for my focus groups could have been larger, involving more participants to produce more results and emotions. I feel as though if the groups had been larger, the discussions would have been longer and perhaps a bit more in depth because more opinions would have surfaced. If I were to involve more participants in focus groups, instead of simply gathering more photography or art students, I would involve students whom had absolutely no background in the field of art or communication. I feel this additional aspect to my research could have added more weight to my thesis, involving a variety of students rather than such a narrow scope for my research.

It would have been interesting to merge the two focus groups into one large group, to gather more data regarding influence factor of the research. Perhaps the advanced students would have a profound impact on the views of the beginner students because of their knowledge and age difference. Reasoning for not merging

the groups came from potentially anticipated discomfort deriving from both parties, if the group became one not all the participants would be acquainted with one another and potentially hold back from expressing themselves to their full potential.

I expected to find a substantial distinction between the beginner and advanced students. Although the two groups produced entirely different results, there were some similarities such as overall confusion for the image depicting fear, and uncertainty regarding the image portraying death, particularity the man getting shot in the head. Perhaps the confusion circulating around these two images in particular stem from discomfort while viewing the photographs. I believe my research is additional to the field of communication because although prior research exists involving the analysis of visual framing, the research does not include the aspect of shocking images, or influence. My research may be similar to certain studies but is unique in its own.

Conducting larger focus groups or combining the focus groups may not provide the additional insight Rebecca believes. Larger groups tend to fragment into mini-groups and the researcher can lose track of the multiple discussions going on. Expanding beyond photography to other students' interpretations of the images might add an interesting dimension. Finally, Rebecca found that initial selection of the images is a critical component of her study.

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11 Social Media and Research Methods

by Heather McIntosh

Chapter Outline

What Will I Learn About Social Media and Research Methods?

Can your Facebook feed change your emotions without you knowing it? According to a 2012 experiment, yes, it can. Researchers manipulated words appearing on 689,003 people's Facebook newsfeeds for a week. Kramer, Guillory, and Hancock (2014) found people receiving more negative content in their feeds made more negative posts and people receiving more positive content in their feeds made more positive ones.

The catch behind this experiment? None of the users specifically consented to be part of the study, were aware it was happening, or could opt out of it. Yet, they may have been affected by the manipulations. Kramer et al. (2014) claimed they saw no actual text and operated within Facebook's data use policy, "to which all users agree prior to creating an account on Facebook, constituting informed consent for this research" (p. 8789). But how can users give informed consent to a study they are not even aware of?

The Facebook example raises questions about conducting research on and with social media and the ethics behind it. What are social media? What are the key features of social media? What does it mean to use social media as a site for research? What does it mean to use social media as a tool for research? What ethical questions arise in conducting research both using and on social media? In Chapter 11, we explore these questions in our discussion of social media, communication research methods, and ethics.

Social Media Defined

Defining social media is a challenging task (Fuchs, 2017). At the simplest, social media refer to any media connecting people in some way. We often think of social media as social networking sites such as Facebook or Twitter, or as social mobile phone apps such as Snapchat and Instagram. But social media and many of the activities associated with them predate the online environments many of us now read, chat, post, and otherwise interact in each day. For example, pre-digital social media include graffiti, letters, and pamphlets (Standage, 2014).

Much of the content of social media, such as memes, also has origins in offline media. A meme refers to any form of shared culture spread among people. Online memes are "(a) a group of digital items sharing common

characteristics of content, form and/or stance which (b) were created with awareness of each other, and (c) were circulated, imitated, and/or transformed via the Internet by many users" (Shifman, 2013, p. 41). Popular online memes include "The Ice Bucket Challenge," "Success Kid," and "The Most Interesting Man in the World." Predigital memes occurred during World War II, when the phrase "Kilroy was here" appeared, often on ships, accompanied by a drawing of a face with a long nose lurking over a wall. After the war, it appeared as graffiti and in popular culture. The meme apparently began when a riveter inspector named James J. Kilroy wrote "Kilroy was here" near areas where he had completed his inspections, and soldiers began to copy the phrase on other ships (Shifman, 2013).

In general, social networking is not a new phenomenon, but one with historic precedents in both electric and nonelectric media. In this chapter, we focus on online social media.

Social Media Features

Online social media are split between two periods—Web 1.0 and Web 2.0—and the features of social media change dramatically between them. Following the Internet's public availability in the early 1990s, Web 1.0 was dominated by text-based webpages coded in HTML (hypertext markup language) and connected via hyperlinks that allowed people to "surf" from one page to the next. Webpages were static, and they offered users little opportunity to engage other than scrolling, reading, and clicking links. The social media appearing in this era centered on people communicating on usenet groups, forums, and online discussion boards. Social networking sites during Web 1.0 included Classmates.com for reuniting with high school friends, Xanga and LiveJournal for blogging, and Six Degrees for connecting with friends and family.

Starting around 2004, Web 2.0 completely changed the way people experience the Internet and social media, though the lines between the two are blurring. Web 2.0 offers a dynamic user experience.

Five key features distinguish Web 2.0 from Web 1.0:

1. Convergence
2. Platforms
3. Participation
4. Big Data
5. Privacy and Surveillance

Since these features influence both research and ethics involving social media, let us briefly consider each term. As you read, think about how they relate to your own experiences with social media.

Convergence

Convergence refers to a coming together, a uniting of different items. In terms of media and social media, convergence can refer to content and devices (Turow, 2013). Making content digital means turning songs, TV shows, movies, and books into computer-accessible data, allowing the content to reach audiences through multiple devices. Instead of a record player for music or a film projector for film, a single device (a laptop, tablet, or cell phone) allows users to enjoy all the content. These same devices allow users to connect to their favorite social-networking sites.

Platforms

A platform is a bounded system allowing people to interact online. Most social networks, such as Facebook, Twitter, and Tumblr, function as platforms. Platforms draw on convergence. Technological affordances and advertising drive these platforms and users' potential engagements with them.

Technological affordances refer to what the platforms allow users to do. Twitter's previous 140-character limit per tweet is one example. The character limit forced people to develop and share concise thoughts, and forced users to develop language shortcuts to enable richer expression. Even with the recent doubling of the character limit to 280 characters, the limit still defines part of the platform's potential for users (Isaac, 2017). For a second

example, Instagram requires users to upload photos to their account using a web-enabled smart phone. Both the character limit and the device requirements represent technological affordances that shape users' experiences.

Many social-networking platforms include advertising. In exchange for free site use, users become audiences for targeted advertisements customized based on their posts and listed interests, their on-site and off-site interactions, and their friends' and connections' activities. Social-networking sites require users' interactions to drive advertising exposure and growth. Facebook faced a problem when people stopped sharing personal details and instead shared mostly news media and other industry-produced content (Griffith, 2016). Less-frequent personal sharing undermines the advertising values driving the platform, which are based on the depth of personal information about its users that Facebook can access. Some social networks, such as ello, claim to operate without targeted advertising for a different kind of platform and user experience (Carollo, 2015).

Participation

While all media encourage some form of participation, the participatory possibilities of Web 2.0 fueled much enthusiasm about its potential (Castells, 2012; Jenkins, 2006). Web 2.0 encourages and sometimes even demands our interaction on and with websites. Consider a site such as Buzzfeed, which allows users to react to content with an "LOL," comment on stories, share them on social networking sites or e-mail, connect with the site on social-networking sites, and sign up for the newsletter, just to name a few. Some websites, such as news sites, allow users to leave comments, while other sites such as Yelp and Amazon allow users to post reviews, ask questions, and offer answers.

Participation extends beyond just what the website or platform allows. Web 2.0 reduces the Web 1.0's production barriers of HTML coding and other issues making it easier for anyone with the means to create and post content online. YouTube in particular encourages participation. Music fans can create videos of themselves or their friends covering their favorite artists, while others may create videos of their pets' antics. Though they existed long before the Internet, fans and fan communities are particularly active in producing content for online consumption, ranging from writing fan fiction to re-editing show sequences for their own preferred endings.

Web 2.0 includes political participation. Between December 2010 and December 2012, for example, people in countries across the Arab world, including Tunisia and Egypt, protested against their governments, economic realities, and human rights issues in what became known as the Arab Spring. The Occupy Movement, for another example, protested against corporate and banking practices that resulted in enormous gaps between the wealthiest 1 percent and the 99 percent. Social media played roles in both movements. In the Arab Spring, organizers and mobilizers used Facebook and Twitter to get their messages out (Lim, 2012). The Occupy Movement used Facebook and Twitter to bring people together and avoid police crackdowns, and independent websites offered regular news and streaming video (Costanza-Chock, 2012). While social media played roles in these movements, the roles represented only one part of larger offline and online activities (Carty, 2015).

Big Data

Big data refers to the quantity of information available online. Every single interaction with a social networking site or social networking app generates massive quantities of data. The Facebook study that opened this chapter used big data.

Three key features of big data are their quantity, speed, and variety. The exact quantity separating big data from "regular" data is difficult to quantify. The speed of data generation happens in real time. The speed can also refer to the seemingly instant pace of data analysis enabling targeted advertising to appear in your social media. Variety refers to the kinds of data including pictures, text, sounds, graphics, music, and more. Variety also refers to metadata, which provide further descriptions or details about the data set, such as formatting, collection, and the time of collection. Schneier (2016) offered a metadata example using e-mail: "[T]he text of the email is data, but the sender, receiver, routing data, and message size are all metadata" (p. 17).

Privacy and Surveillance

Privacy and surveillance are important considerations when conducting social-media research. The terms function in tandem, and their definitions shift in Web 2.0 environments depending on whether individual users or social-networking sites. For individual users, according to Baym (2015), "privacy is about controlling access to information and the integrity of the contexts in which information is shared" (p. 121). Users selectively share or

hide certain information with groups. For example, you might share news about your new job with your friends and family through certain groups on Facebook, but you might want to keep the information private from your co-workers. At this level, privacy offers numerous benefits, including building relationships, expressing creativity and imagination, engaging critical thinking, and exercising independence (Fuchs, 2017; Solove, 2008).

On the level of social networking sites, the definitions of privacy change. These sites specify their practices through documents like "terms of service" and "privacy policies." The documents appear to favor the user but instead benefit the platform, which mines the data and shares user information with advertisers and other interested parties no matter the users' preferences. The platforms generate income from these practices.

Privacy is strongly connected to surveillance. Fuchs (2017) defined surveillance "as a specific kind of information gathering, storage, processing, assessment and use that involves potential or actual harm, coercion, violence, asymmetric power relations, control, manipulation, domination or disciplinary power" (pp. 188–189). Fuchs' definition calls attention to the power social networking sites retain in gathering information and leveraging it to generate revenues. But information can be used for more than selling to advertisers. Data gathered on social and online media have been used in police investigations, though sometimes to inconclusive and questionable results. Following the Boston Marathon bombings in 2013, a Long Island family received a visit from the police asking members about their online searches for pressure cookers, backpacks, and bombing updates (Gabbat, 2013). The searches triggered a visit from the task force because all three items, particularly the pressure cooker, were connected with the bombing events (Gabbat, 2013). Private users can engage in surveillance through social media, too, which can enable cyberstalking and cyberbullying and makes removing a digital presence a challenge. The European Union has ruled that people have the right to be "forgotten" and have their online materials removed (European Commission, 2014).

With the characteristics of Web 2.0 in mind, we now shift to social media's roles in communication research.

Social Media and Communication Research

Social media are not a research method but instead relate to communication research in two ways. One, social media offer contexts ripe for communication study. Two, social media offer a series of tools complementing the other research methods detailed in your textbook. In both cases, social media open new possibilities, but, just as with communication research methods, they must be considered reflexively as part of the overall research process.

Social Media as a Research Site

Social media offer rich sites for conducting communication research. Users' interactions with texts, audiences, and technologies create an environment full of diverse opportunities for exploring communication research questions. An overabundance of information creates challenges for drawing boundaries around research studies. The following section examines virtual boundaries, user interactions, and online communities and cultures as research sites.

While physical sites create firm boundaries between field sites and other sites such as work, school, or home, Miller and Slater (2000) state, "we need to treat Internet media as continuous with and embedded in other social spaces" (p. 5). The boundaries can shift throughout the research process, such as online communities transitioning from one platform to another as they grow and as technologies change. The research boundaries can follow platform boundaries, such as studies focusing only on Twitter or Facebook. Other boundaries can cross multiple platforms, such as hashtag campaigns or memes. Researchers often inhabit the same social networking sties as their research participants, and sometimes researchers participate in the same communities as they study.

Users' interactions with texts, audiences, and technologies create the richness of virtual sites. Their experiences with texts, audiences, and platforms depend on their engagement levels. According to one framework, about 90 percent of people online only lurk, scrolling through feeds but never engaging, 10 percent engage, and 1 percent engages extensively (Luttrell, 2014). Some users invest heavily in their virtual communities, developing relationships, sharing support, offering advice, and creating identities (Baym, 2015). For example, fan communities of television shows and films are active sites developing their own norms, languages, and behaviors (Baym, 2015). Fans of *Buffy the Vampire Slayer* (1997–2003) lost an official fan community when the show changed networks, so they relocated to an online community called The Bronze, named for a nightclub in the series. In a 15-year study of The Bronze, Ali (2013) discovered members called themselves "Bronzers," groups of

members called themselves "Coffee Clubbers," and members had regular posting rituals, such as posting daily questions and "yays."

Other groups carve out their own online communities. One example is Black Twitter. The microblogging site has a substantial proportion of African-American users. Research about Black Twitter examines online racial identity through language use and participatory patterns. Florini (2014) examines the term "signifyin'" as part of that community, while Sharma (2013) examines "blacktags" such as #onlyintheghetto or #ifsantawasblack. Roderick and Smith (2016) study the hashtag #blacktwitter in an attempt to define the practices as a counter-public.

While some interactions occur within platforms or forums, other interactions occur across multiple sites. A hashtag campaign is a kind of metadata allowing participation across sites. Hashtag campaigns, such as #icebucketchallenge or #occupy, draw participants from multiple sites such as Twitter, Facebook, YouTube, Instagram, and Tumblr. Though sometimes less connected, memes also occur across sites. A police officer casually pepper-spraying seated protestors during the Occupy Movement became a meme after a user first posted the picture on Reddit. Other people modified the image with humorous or sarcastic lines, pasted the pepper-spraying police officer into other scenes, or combined the two. One image macro was captioned "Don't mind me just watering my hippies," while digitally edited images showed the officer pepper-spraying Kanye West, baby seals, nuns, and My Little Ponies (Milner, 2013). According to Milner (2013), participants contributing to the meme created social commentary and political engagement.

Social Media as a Research Tool

Social media provide a new set of tools and opportunities for conducting and expanding communication research. One set of tools expands communication and connecting with people online. The other set of tools expands and sometimes simplifies the process of data gathering. All of these tools must be considered carefully in the research process.

The primary tools social media offer center on communication. While social media allow users to connect with audiences seen and unseen, they also allow researchers to observe and connect with users. Researchers can use social networking sites or online forums, for example, to follow or track users they want to study. They can use sites to interact with users, such as their participation in an online fan community or recruitment of people to participate in a study. Numerous social networking sites allow users to exchange messages in private. Finally, sites allow researchers to create virtual spaces for their studies, such as a group page on Facebook.

The virtual boundaries of social media blur the lines between researchers and participants. Participant observation and ethnographic studies frequently occur at physical locations outside a researcher's home or work, and thus physical separation and distance exist. With social media research, the participants and the researcher might use the same sites and even connect across multiple sites. In-person or online, connections, or requests for connections, may occur. For example, Sin (2015) describes how she connected with her research participants at a physical site through friend requests on Facebook.

Second, social media make collaboration an easier and sometimes more expansive process. One tool is a wiki, which allows users to read, edit, and comment on a webpage's content. Research participants can engage and reflect on each other's comments, creating richer interactions than sometimes available through other forms of online participation (Castaños & Piercy, 2010). Social media offer the opportunity to share data, such as through Facebook groups (Lunnay, Borlagdan, McNaughton, & Ward, 2015). Third, social media allow participants new, more collaborative roles in the research process. Crowdsourcing, which involves using social media to reach masses of people in order to solicit their help, information, or monetary contributions, can bring participants further into the process (Brabham, 2013). While not a communication research study, Galaxy Zoo is a series of crowdsourced projects that directed participants to classify the shapes of thousands of galaxies.

These tools facilitate new kinds of mediated interviewing. The new technologies create interview scenarios with differing levels of social presence (Baym, 2015). Social cues such as body language and facial expression diminish or disappear online, though users find other ways such as emojis and language use to compensate (Baym, 2015). Audio-visual tools such as Facetime, Skype, and Google Hangouts allow real-time virtual interviews between individuals or small groups. Though not physically present, interviewers can see some non-verbal cues and body language. In a study of female digital musicians, Choi (2017) uses both Skype and phone calls to interview women from seven countries across three continents.

Arguably, social media offer an immense, if imperfect, archive of materials available for study. While mainstream media and corporate outlets produce content, a good portion comes from everyday people who found voices online through comments, tweets, blogs, forums, pod-casts, and online videos. All of the activity generates metadata. Social media offer an immense tool and opportunity for data gathering. Key tools include web scraping and online surveys.

Web scraping refers to finding and gathering information from websites and social networking sites in order to analyze it. Web scraping can be done by hand or by machine. When working by hand, researchers seek the data themselves through website or search-engine queries. They sort through the query results, scanning each one to determine its place within the desired data set. They then create an archive of the data by saving the webpage, creating a PDF, or taking a screenshot. While the process takes time, and creates a smaller data set, the researchers have a clean data set for their analysis and may already have some sense of emerging patterns.

Machine-driven web scraping involves writing program scripts or using dedicated programs to gather data. Program scripts can be written in languages such as Python (Mitchell, 2015) and Java (Mitchell, 2013). Dedicated programs such as SPSS Modeler, SAS Text Miner, NVivo, RapidMiner, and Leximancer can gather data according to researcher-set parameters. Some social networking sites, however, restrict or prohibit this kind of data gathering, and researchers should check with the site's terms of service before proceeding.

In their study of blog use by small businesses, for example, He and Chen (2014) used a mixed approach of both manual and software-based web scraping. He and Chen first used a search engine to seek results from keywords and identify potential blogs. They double-checked the search results by hand for spam blogs and removed any repeats, adding the posts into a text-mining software called Leximancer for analysis.

Online surveys offer a way to gather directed information. Free and paid services exist for online surveys, such as Survey Monkey, Qualtrics, and even Google Forms. Free services may limit the number of questions asked, the number of participants, or the amount of data returned. The paid options offer more features. The services make it easier for research to set up questions, distribute surveys, and collate data.

While some online surveys are disseminated using e-mail, others will take more ambitious routes and use virtual communities. Second Life provides online virtual communities where users create avatars to engage with others. Second Life communities include persons with chronic medical conditions, LGBT populations, and sometimes involve elusive online users (Haque & Swicegood, 2013). The site allows virtual interviews both "face-to-face" and by phone (Dean, Head, & Swicegood, 2013).

Social Media and Research Ethics

Social media require a re-consideration of research ethics. The use of social media blurs traditional boundaries, such as the separation of research sites from personal or work sites, the separation of researcher and participants, and the protection of anonymous identities and confidential information. The next section raises key issues including consent, privacy, confidentiality, safety and security, and beneficence. Second, the section addresses issues of digital inequalities and how they factor into research using social media.

Consent is an essential part of research using social media. Consent involves getting informed permission from participants before they take part in a research study. These people must be able to give their consent freely, and they must understand the possible outcomes of their giving consent. Social media make obtaining consent easier, but raise ethical concerns. For one, how can researchers confirm the person giving consent is free to do so and has a clear understanding of the study? How can you confirm people are who they say they are, and not a 13-year-old child impersonating a parent or grandparent, or an older man impersonating a younger woman?

A difficult question concerns whether consent is needed at all. People freely engage in open forums and comment sections to discuss their favorite shows and stars, engage in heated political debates, and support others with health-related issues. While a researcher can easily see comments, are they free to use them, or does the researcher need permission to use the information and attribute to a real or screen name? What about quoting information anonymously? Kozinets (2010) describes finding information on an *X-Files* fan forum he wanted to incorporate into his research. He sought permission from everyone and got it, except for one person. Kozinets tried again, asking if he might use the quote anonymously. Again, the person declined. Kozinets writes: "At that point, it would have felt very wrong to include their data. If we do not ask, then others cannot refuse us permission. We can just take. However, we must consider carefully the ramifications of this ethical stance" (p. 138). For example, what if he had quoted the materials anyway and search engines connected the final research

with the original forum post? What if news media began writing about the research and other people began investigating? What if potential employers and others with a stake in the original poster found out about it?

Privacy is the "basic idea that each and all individuals should have the right to decide for themselves what and how much others get to know about them. It is only the information that they choose to reveal that should be known to others" (Sveningsson Elm, 2009, p. 69). While some users carefully control their levels of shared information, others do not. The problem is in identifying the "others." In research about ethics and teenagers online, James (2016) labels audiences as the self, known others, and distant others. Known others, in this model, involves people in users' more immediate social networking connections and real-life connections. Distant others involve connections beyond the immediate ones, such as friends of friends. But, following our earlier discussion of privacy and surveillance, many users remain unaware about just who is looking and accessing their information. Remember that any communications conducted online, particularly through commercial social networking sites, are not private (James & Busher, 2009). Researchers should be familiar with privacy policies beforehand. Privacy policies might allow researchers to access and manipulate information without users even being aware of it, as the Facebook example opening this chapter shows. Forum users often resent finding out that researchers are lurking in their online discussions (Kozinets, 2010).

Maintaining participants' confidentiality is a hard task when using social media. Participants who take part in an online study usually have some degree of established online presence and might be identified through an online search. Searching for direct questions can connect to a person's social networking presence (Moreno, Goniu, Moreno, & Diekema, 2013). Certain data combinations can link to specific people. Lewis, Kaufman, Gonzalez, Wimmer, and Christakis (2008) were able to identify specific participants and their ethnic group. Moreno, Goniu, Moreno, and Diekema (2013) suggest that direct quotations and identifiable personal information should be avoided altogether.

While not specifically about confidentiality, the identity of the researcher comes into play. Some researchers maintain an online presence, and research participants have been known to check this before agreeing to participate. Reich (2015) notes how people read her book and checked her qualifications before agreeing to participate in her study. She mentions that people drew conclusions about whether she could be trusted. Finally, researchers may find leaving the field difficult as participants might remain in contact and send questions long after the study ends (Reich, 2015).

Safety and security become difficult to define in online environments, but remain important ethical considerations for research. Cyberbullying and cyberstalking remain problems with both online and offline implications. Some targets find themselves doxxed (when personal information is published online), cybermobbed (when large groups of anonymous users harass a person), or subjected to Google bombing (when large groups create multiple pages and posts with false information in order to bury the person's real information) (Citron, 2014). The offline implications include financial insecurity, employment difficulties, and personal safety concerns (Citron, 2014). Though more work needs to be done in order to understand these issues, conducting research in these areas leaves both participants and researchers particularly vulnerable.

One final ethical consideration is beneficence, or the respect for people involved in the research process. Social media pose several challenges to this by creating divisions instead of bridges between people. For example, users rely on social categories or stereotypes over individual cues to guide interactions with each other (Humphreys, 2014). Turkle (2013) argues that social media and mobile technologies increasingly isolate us even though we have more ways to connect. As Weller (2015) notes, "some researchers are so focused on the digital patterns emerging through social media usage that they almost forget that there are actual users behind the nodes and patterns" (p. 281). Researchers sometimes overlook the role of platforms in shaping perspectives (Weller, 2015). Remember that, no matter the methods used, individuals have rich lives—both online and offline—are on the other end of the tweet, Facebook post, and Pinterest board. Your research can have profound implications in ways you did not anticipate.

While many people engage social media on a regular basis, not everyone uses social media. We must resist the assumption that online users are representative of the general population. One typology suggests seven different types of Internet user based on how relevant they view the Internet and its return-value for them (Meyen, Pfaff-Rüdiger, Dudenhöffer, & Huss, 2010). One distinction is based in the digital inequalities that describe the differences among social media users. Brake (2014) outlines some of these divides as motivational, material, skills, and usage-based. While motivational divides are internally driven, material divides refer to a lack of Internet

access, particularly high-speed Internet, while skills access refers to the knowledge required for effectively accessing and using online tools. Usage divides can come back to social class, age, and geographic location (Humphreys, 2014). While social media bring much enthusiasm, "the lure of new technology does not wash away existing inequalities" (Lunnay, Borlagdan, McNaughton, & Ward, 2015, p. 100).

Summary

This chapter is a broad introduction to the intersections of social media and communication research. We covered some background about social media's developments and its key features. We covered the difference between social media as a site for research and as a tool for research. Finally, we raised some key concerns about ethics and social media research.

Key Steps and Questions to Consider

1. Social media refer to any media that connect people in some way. These connections can be digital or in person.
2. Much of the activities and texts, such as memes, that seem new online actually have origins offline.
3. In the two periods of online social media, Web 1.0 is dominated by text, while Web 2.0 is more robust in its user experience. Web 2.0 is how people experience the web and social media today.
4. The key features of Web 2.0 include convergence, platforms, participation, big data, and privacy and surveillance.
5. Social media are not a research method, but a rich opportunity for data.
6. Social media offer a rich site for communication research, such as through online communities, hashtags, memes, and online cultures.
7. While an abundance of information is available online for study, "convenience" is never a good research motivation.
8. Social media offer new tools for research, including new ways to communicate with others and to gather information. Wikis, web scraping, and online surveys are among these new tools.
9. The issues of ethics in communication research—including consent, privacy, confidentiality, safety and security, and beneficence—require some rethinking in online environments.
10. Digital inequalities remind us that not everyone uses social media, has access to social media, or knows how to use social media.

Activities

1. Choose a hashtag currently trending on Twitter. List all of the potential data points you might gather in creating the data set. Be sure to include metadata.
2. Choose a popular meme from knowyourmeme.com. Search for some examples of the meme on different social media sites. Discuss how you might go about identifying people participating in the meme and recruiting them for a study about their motivations.
3. Review this chapter and look for the ways you might conduct an interview online. Say you are doing a research study about the role of social media and cancer survivor stories. Discuss which methods might be most effective and least effective for this kind of study and why.

Discussion Questions

1. Look up the Facebook study that opened this chapter. Would you have followed the same procedure as the researchers? Why or why not? If not, what would you have done differently and why?
2. Your friend posts a long story about sexual assault on her Facebook page and adds the hashtag #metoo. Do you use your friend's post as part of a study about the #metoo hashtag campaign? Why or why not?
3. How would you approach research in a forum you are a member of? Would you reveal your presence and your practices to users? Why or why not? If so, how would you go about telling people? How would you

handle any backlash?

4. You recently just finished an online survey about social media marketing strategies. Someone who participated in the survey, a small business owner, contacts you seeking advice on how to improve her social media presence. How do you respond and why?

Key Terms

Beneficence
Big Data
Convergence
Crowdsourcing
Cyberbullying
Cybermobbing
Cyberstalking
Digital Inequality
Doxxing
Google Bombing
Hashtag Campaign
Meme
Metadata
Platforms
Social Media
Surveillance
Technological Affordances
Web 1.0
Web 2.0
Web Scraping

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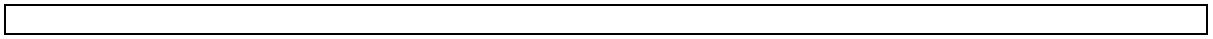
12 Content Analysis - Qualitative



Chapter Outline

What Will I Learn About Qualitative Content Analysis?

Online dating has quickly become a standard way for people to find each other in our face-based world. While dating ads officially date back to the 1690s with personal advertisements in newspapers, the concept and practice of online dating exploded in 1995 with the start of Match.com (Lee, 2016). As the Internet grew, so did online dating sites such as Jdate, Ashley Madison, eHarmony, OkCupid, Grindr, Tinder, and others in a long list. So, what's the connection between online dating and qualitative content analysis (CA)? All those advertisements and online postings involve a form of qualitative content analysis to help someone pick their perfect match. When someone scans through their possible dates, they are unknowingly conducting a small-scale qualitative CA. They are scanning for keywords, developing a coding framework, creating categories, assessing the content and context of the information (data), and making interpretations from their study. Qualitative CA is an inherent skillset we all practice for such everyday tasks as reading movie reviews, watching sports, picking political candidates, and—yes, sometimes—finding a partner for a date.

The analysis of qualitative data is a significant, and often misunderstood, part of the research process. One could use multiple methods and approaches in analyzing qualitative data. The most common approach, however, is qualitative content analysis (CA). We're going to use the acronym CA for the rest of the chapter because, honestly, "qualitative content analysis" contains way too many syllables to read multiple times in the chapter. In this chapter, we explore the parameters of and a systematic approach for conducting a qualitative CA.

What Distinguishes Qualitative from Quantitative Analysis?

You will notice after reading this chapter and the next chapter certain similarities exist between qualitative CA and quantitative CA. Both approaches have been around for quite a while. In fact, Berelson (1952) was among the first to separate content analysis into qualitative and quantitative approaches.

Both use a systematic approach to sorting the data. Both use a series of defined steps to sort through the data. Both make use of a coding frame. However, Schreier (2013) identifies the distinctions between qualitative and quantitative CA. First, qualitative CA is data-driven, and the coding frame and the coding process may adjust and adapt as the analysis progresses. A quantitative CA, on the other hand (as you will discover in the next chapter), tends be concept-driven by the hypotheses being tested. The coding frame for a quantitative analysis, thus, tends to be more rigid (less flexible) than the qualitative approach. Second, a qualitative study considers the coding frame as part of the analysis, while a quantitative study considers the coding as part of data collection with the analysis occurring through rigorous statistical analysis. Finally, Graneheim and Lundman (2004) contend that qualitative CA focuses on both explicit content and latent content. Latent content is not stated directly in the data, but is inferred from the overall content and context of the data.

Just as with most research methods, your research question is critical to the success of your qualitative CA. The research question guides development of the coding frame and the process for streamlining your data (we'll get into the details of the coding frame later). You can identify a qualitative CA by its three primary characteristics: 1) the process reduces and streamlines the data into manageable segments, 2) the process is systematic for placing data into the coding frame, and 3) the process remains flexible to provide the best insights on your data. Finally, qualitative CA involves three main elements: codes, categories, and themes. We will discuss each of these three elements later in the chapter.

Three Approaches to a Qualitative Content Analysis

Qualitative content analysis can be divided into three distinct approaches: conventional, directive, and summative (Hsieh & Shannon, 2005). We draw on Hsieh and Shannon to briefly describe the three approaches.

A conventional approach to qualitative content analysis is used to describe a communication event. The approach works best when limited research has been done in the area and existing theories don't effectively work to understand the communication. Conducting the content analysis involves fully engaging yourself in the data and allowing codes to emerge from the experience. The approach is inductive since no pre-set codes, standards, or expectations are imposed on the data. A conventional approach has the advantage of providing the most intimate connection with the data since outside influences do not alter how the analysis proceeds. The disadvantages include missing key codes or categories providing an incomplete picture of the content and context of the data. The issue becomes one of internal validity—does the analysis hold true to the full data set? Finally, the approach is frequently confused with the grounded theory approach to qualitative analysis. When you move on to a graduate program in communication studies, we recommend studying Cho and Lee's (2014) interesting read detailing the differences between qualitative content analysis and grounded theory.

A directive qualitative content analysis draws on existing theory and research to help guide the coding process, but existing theory or research is seen as insufficient for a complete understanding of the data. The directed approach can be useful for extending and deepening (or potentially challenging) the literature and theory guiding the analysis. The existing literature or theory may focus your research question(s), assist in identifying important concepts, and provide direction for developing your coding frame (we talk more about the coding frame later in the chapter). Where (or when) the existing literature or theory falls short, you can continue the analysis using the emergent process discussed in the conventional approach. The use of existing literature or theory is the primary advantage of the directed approach. You're not starting with the blank page of the conventional approach, which is entirely dependent on the strength of the codes, categories, and themes to "sell" your analysis to your readers. The directed approach provides some existing structure for understanding the data. Supporting or extending (or challenging!) existing literature or theory is a solid foundation for a study. Researcher bias is the main limitation to the directed approach. The existing literature or theory may overly influence your data collection and analysis. You might miss key issues in the data because they were filtered by the literature or theory.

A summative qualitative CA starts in a similar fashion to a quantitative CA. Specific word(s) are identified and counted. If the next step involves statistical analysis, then you are on the path to a *quantitative* CA (see the next

chapter for all the details on a quantitative CA). However, a summative approach uses the count to demonstrate repetition and intensity of certain word(s) in the data, then goes one more step by including latent analysis as part of the process. Latent analysis involves the interpretation of underlying meaning. For an example, let's return to our online dating study. Part of your interest in the study involves people looking for a sexual partner, so you conduct a word count for "relationship." A latent analysis might expand the word search to include "hooking up," and "FWB" (friends with benefits). Then you carefully study the surrounding content and context when each word or phrase appears. Looking at the "big picture" turns your initial word counting into a summative qualitative CA. An advantage to the summative approach is the richer understanding it provides of when and how different terms are used, providing in turn an insightful understanding of the data. The disadvantage is an over-reliance on credibility. The readers place significant trust in the researcher to make connections between the content, context, the analysis, and the interpretation.

Gathering and Organizing the Data

As we've discussed in previous chapters, data can be collected in a variety of ways, including surveys, interviews, field observations, print material (e.g., books, newspapers, magazines), or audio-video material (e.g., movies, online videos).

In qualitative content analysis, your analysis should consider both content meaning and contextual meaning. You are closely examining the communication in order to classify large amounts of data into an efficient number of codes, categories, and themes representing similar meanings within the text (Weber, 1990).

Qualitative CA involves careful scrutiny of the data and its organization into meaningful groups in order to understand what is occurring in the communication. The groups are referred to as codes, categories, and themes.

Codes are basic labels you assign to a phrase or segment of text in your data. For example, let's say you interviewed people for their perceptions about online dating sites. Your basic codes might include "single," "divorced," "straight," "gay," or "long-term relationship." Codes provide a means for identifying key points in the data. You might notice new codes jumping out while you read the transcripts of interviews. Let the codes continue to emerge as you work through the data. Such codes are the basic level of your CA. You can develop your codes in three ways—by open coding, theoretical coding, and axial coding.

The first approach is open coding. LaRossa (2005) defines open coding as breaking data apart to delineate concepts or categories to represent chunks of data (themes). In open coding, written data from the field or from transcripts are reviewed line by line. Everything is coded in the transcripts to get a better understanding of what is occurring. A researcher typically compares emergent codes to support identifying additional emerging codes. This is known as the constant comparison approach and is a great way for researchers to identify similarities and differences in the data.

The second approach is theoretical coding. The data is selectively coded based on a theoretical lens. With both open and theoretical coding, codes are developed from the transcripts and compared to other codes in the transcripts. Eventually, themes emerge from the data. We will talk more about themes shortly. For example, if you are interested in cultural identity, you will focus on the data and look for transcripts that specifically address the development, management, and other components of identity. The selective sampling process means that you could neglect to identify other aspects of the data since your focus is based on a specific theoretical perspective (Glaser, 1978).

The third approach is axial coding. Axial coding is the inductive and deductive process of relating codes to one another and creating categories (Charmaz, 2006). In axial coding, you reread your data with your open and/or theoretical codes in mind. You basically work to confirm that your data are correctly represented in the coding process, or whether something vital was overlooked. You want to make sure, just as with a puzzle, all the pieces fit properly together.

Your coding process will develop into a coding frame. The coding frame is the critical component of a successful qualitative content analysis (Schreier, 2013). The coding frame must be carefully constructed, described, and maintained throughout your study. The coding frame is the centerpiece of your qualitative content analysis. A poorly developed coding frame will result in a weak research study. Spending time on the development of your coding frame is essential for an effective, insightful, and worthwhile study. Do your study justice and take the time (and effort) to build a strong coding frame. As we noted earlier, the coding frame will adapt and flex as the study progresses. A good way to start may be with a few pre-set codes based on your research question(s). Then use open

coding to allow additional codes to emerge as your study progresses and you dig into the data. The coding frame is central to the development of categories and themes.

Categories are broad groups of codes used to structure your analysis. Categories help to reduce the number of codes used to classify your data. Let's return to our online dating example. You may identify a series of codes that can be grouped together as "companionship," "affection," or "romance."

Themes are high-level clusters of your categories. Themes identify major elements in your data and are usually limited in number (usually a maximum of four to five for a major study). The development of metaphors or analogies is often an effective way to cluster categories into themes. For example, the online dating study may develop themes including "long-term relationship," "lifetime commitment," or "just for fun." Developing themes takes time and patience. If you find the concept of thematic development of high-level interest, we recommend Ryan and Bernard (2003), which is excellent on techniques for identifying themes. The themes developed in your study will help us make sense of the world and will play a critical role in your interpretation of the data.

Steps for a Qualitative Content Analysis

Conducting a qualitative CA involves seven main steps:

1. Review existing literature connected to your research questions. Let's say you are interested in how people form and shape their cultural identities. You review previously published studies by researchers like Collier (1998, 2005) and Collier and Thomas (1988) to gain an understanding of how cultural identity is formed.
2. Collect your qualitative data using one or more of the approaches we've discussed in other chapters including interviews, ethnographic field notes, and focus groups.
3. Prepare your data for analysis. Qualitative data is easier to analyze if in a tangible form, such as a transcript. We highly recommend that you transcribe focus-group and open-ended interviews. Ethnographic field notes may also serve as tangible data.
4. Start the coding process. Depending on your approach (conventional, directive, summative), use the appropriate coding techniques (open, theoretical, axial).
5. Use the coding process to develop your coding framework. The coding framework will guide the identification of categories and themes.
6. Identify the categories and themes which emerge from your coding of the data.
7. Finally, move into the interpretation phase by reviewing your codes, categories, and themes. What is the data telling you about the communication phenomenon you've been researching? Make sure to connect your interpretation back to your research question(s). The entire research project should coalesce into a strong study worthy of being shared with your scholarly colleagues.

Alternative Methods of Qualitative Data Analysis

While qualitative CA is an effective way to analyze qualitative data, other approaches are available. In the next chapter, we talk about quantitative content analysis. Often, people assume that content analysis is done only for quantitative purposes; this is not the case. In Chapter 13, you will see ways that you can apply many of the same aspects of qualitative CA to quantitative data.

A thematic analysis is a straightforward way to analyze qualitative data, particularly data related to interpersonal and relational issues (and one with few steps). Owen (1984) outlines a three-step process one can take when analyzing transcripts of qualitative data: recurrence, repetition, and forcefulness. Recurrence is when the same message is implicitly repeated by a person, or by multiple people in the transcripts.

> Let's say you go through a collection of transcripts looking for how people shape or form their cultural identities. You may see that multiple people mention things like "self," "become me," or "personhood." While the terms are not the same, they imply a sense of being someone, a sense of identity. Many participants may discuss things like "television," "soap operas," "Cosby Show," "Simpsons," or "Family Guy," which could imply the media's effect on cultural identity formation.

The second step in Owen's (1984) model is repetition. You look for repetition when you look for key words

and/or phrases explicitly repeated in the transcripts. In the recurrence step, you have already found that thematic concepts like "self" appear a few times in the texts you are analyzing. The repetition of key phrases, words, etc., shows that such themes are significant for the users.

> Thus, if your participants repeat "image of self" and then, closely after that, "media," you can infer a relationship between the two.

The third step is forcefulness. Forcefulness (or intensity) involves vocal inflection, volume, or pausing used to stress or minimize some statements in speech. In a written text, the use of underlining, italics, bold, all caps, color, or highlighting stresses or minimizes some messages over others.

> A person in an interview may say something like, "I really think who I am comes from a lot of different places. I mean … I am [person points to themselves] who I am partially because of how I was brought up." In this case, the non-verbal act of pointing to themselves further emphasizes their sense of self-identity.

Finally, one of the most complex approaches to qualitative data analysis is grounded theory. Grounded theory looks, at first glance, very similar to qualitative CA. Both use a similar coding process, and both identify categories and themes. However, grounded theory goes much further with a goal of generating new theory from the analysis of the qualitative data. Grounded theory is a systematic process of theory generation that takes place through the analysis of qualitative data. The process includes both inductive and deductive logical reasoning. Glaser and Strauss (1967) coined the phrase grounded theory while conducting qualitative research on death and dying. Glaser and Strauss argue that only a theory developed from the data could adequately represent what was happening (Glaser & Strauss, 1967). We recommend saving your exploration of grounded theory for the advanced study of communication research methods, like when you decide to continue your journey as a communication scholar in graduate school!

Qualitative Content Analysis Exercise

Whenever Stephen discusses social penetration theory (Altman & Taylor, 1973; Taylor & Altman, 1987) with his communication theory students, they regularly do a variation of an exercise involving "getting to know one another" exchanges. This exercise will help you understand how to conduct a qualitative CA.

Question: Think back to the most recent time you sat down to get to know another person. Specifically, recall the verbal and non-verbal behaviors, actions, and/or statements that occurred during the exchange. What meaning(s) do you give to the behavior, action, and statements?

Activity: In the next class period, compile all of the examples on sheets of paper and hand them out to each student. Do not include any names or identifying information. Give the students time to work in groups to conduct a coding of the responses. Instruct the students to conduct an open coding followed by an axial coding of the responses, keeping in mind that the purpose of the exercise is to explore issues related to social penetration theory. The following is an example of responses. Try your hand at coding the responses.

Question Responses:

1. I just went on this date with a guy and it was ok, I guess. We spent a lot of time at dinner talking about simple things I guess. We talked about movies, music, and where we're both from. I'm from Finland and he is from Estonia. When we left dinner I knew some things about him at least.
2. Last week I went to dinner with a hot French girl. I went in to shake her hand and she went in to kiss my cheek; that surprised me. I was not ready for that greeting at all.
3. I remember an interview for an internship last week and when I went into the office I saw that the interviewer or the boss I think it was had really messy hair. I was not sure what to think of this. It was all over the place. He was not what I expected. (American student)
4. I met my girlfriend's father last night. I walked up to him and shook his hand. My girlfriend is Russian and so is her father. He had such a strong handshake I thought he was going to break my hand. I was warned that he was going to be firm with me because he wanted to show me he was in charge. Russians. (Finnish student)

5. I remember meeting my new teachers a few weeks ago and all of them looked me in the eyes. It was really strange for me. I think they wanted me to look them in the eyes too. I am not used to that. I am from Vietnam and we do not look the teacher in the eye as it is sign of disrespect but here in Finland we need to or they think we not listen or care.

What similarities or differences do you see between the statements regarding these initial interactions (getting to know another person)? What did you learn about how the individuals interacted with others? Aside from analyzing the initial interaction, what else could you analyze from these short excerpts? What did you learn about doing grounded theory in this exercise? How could you use this kind of analytical approach in your own research?

Summary

This chapter described various techniques you could use to analyze qualitative data. While we focused a great deal of the chapter on qualitative content analysis, numerous other analytical techniques are available. The key is to find one that fits your research question(s). The following chapter explores the process for conducting a quantitative content analysis.

Key Steps & Questions to Consider

1. Qualitative content analysis and quantitative content analysis share certain characteristics, yet are distinct in how they approach data analysis.
2. A conventional approach works best when limited scholarly literature or theory exists which will help answer your research question(s).
3. A directive approach draws on theory and has the potential to extend or challenge the theory.
4. A summative approach calls on latent analysis to distinguish from quantitative content analysis.
5. Codes are identifying terms that permit key points in data to be gathered.
6. You can use open coding, theoretical coding, and/or axial coding to organize your data.
7. Concepts are conglomerations of codes around similar content.
8. Categories are broad groups of codes used to provide structure to the analysis.
9. Themes involve clustering your categories to identify the major elements in the data.
10. Owen's three-step thematic analysis (recurrence, repetition, and forcefulness) is a useful tool for analyzing qualitative data.
11. Grounded theory is one of the most complex and advanced forms of qualitative analysis available to researchers.

Activities

1. Qualitative CA may be one of the most flexible methods in your communication studies arsenal. To see the breadth of applications for qualitative CA, you can conduct a qualitative CA of research articles. First, go to Google Scholar at https://scholar.google.com/. Google Scholar is a specialized area of the Google search engine focused on scholarly literature from dozens of disciplines. So, let's give Google Scholar a try.
2. Type "online dating" into the Google Scholar search engine. Copy the titles for the first 50 scholarly articles you find. Use the seven-step process detailed in the chapter to analyze the articles (data). Try developing codes, categories, and themes. What are the final themes which emerge from your analysis?
3. Repeat the process, but use the terms "online dating" and "communication studies". What different themes emerge when your data set is narrowed?

Discussion Questions

1. Debate the differences between the three approaches to a qualitative CA (conventional, theoretical, and summative). Based on the debate, which is the strongest approach?
2. Think of your own interests in communication studies. How might the use of a qualitative CA be a method

for exploring your research interests?

Key Terms

Axial Coding
Categories
Codes
Coding Frames
Constant Comparison
Conventional Approach
Directive Approach
Forcefulness
Grounded Theory
Latent Content
Open Coding
Quantitative Content Analysis
Recurrence
Repetition
Summative Approach
Thematic Analysis
Themes
Theoretical Coding

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Undergraduate Qualitative Content Analysis Paper

A Content Analysis of Gender Stereotypes in Videogames

Sarah Cain

Introduction

The video game world is one of the many media outlets that have drastically changed with the technology take over. Over the course of the last 30 years videogames have not only grown substantially in their usage but there has also been a major change in the way that video games (VG's) are played. Many of the original games lacked storyline, the focus was on the fighting combos or the 8-bit music that brings back so much nostalgia, games like *Super Mario Brothers* and *Duck Hunt*. These games were very effective in attracting and keeping an audience and eventually lead to the video game market that we see today. According to the Entertainment Software Association annual report (2016), "65 percent of US households own a device to play video games on. 59% of gamers are male and 41% of gamers are female" (ESA Annual Report, 2016 p. 13). Globally the statics vary, but the overall result is the same VG's have become a massive media influence on today's population. It is important to have a full understanding of what messages VG's spread to its ever expanding customer base.

> Sarah has provided a strong opening for her paper with a compelling reason for her study.

With CGI technology, artists are able to make the hero come to life and jump off the screen. First person shooter games became a turning point for the game industry. This idea allowed game makers to move away from a 2D game format into a format that allowed players to move forward into a game. This idea was groundbreaking in the VG world and became the foundation for almost every video game today.

Today, more and more video games are focusing on their storyline to entice and attract customers and players. This effectively combines both animated story segments, like short movies, and game play. This change has brought more and more players into the world of video games and has brought the video game niche into mainstream media. With the continually expanding user base I think it's important to take a closer look at gender roles how different genders are portrayed in VGs. For example, if there is a woman character in the video game; what is her character's purpose? Is she appropriately dressed for the situations on hand and how was her ethnicity portrayed? How violent does she act compared to male characters? Does this game promote violence to women? These are some of the questions that I will be looking at as I perform this research. Because the market for videogames strongly consists of children, teenagers, and young adults with malleable opinions, ideas, and mindsets it is very important to look at what messages these games are spreading.

Method

In order to approach the research question I have posed, which concerns the way gender is constructed in video games, I will be doing a content analysis. The advantage of a content analysis is that I get an in depth look into several video games. However, because of the length of the video games I will only be able to analyze a small number. So that means that while the data that I gather will be very informative about the video games tested, the data will be very specific to the games that I analyze. Additionally, characters may drastically change as the storyline develops. This means that analyzing data from one section of the game will only provide partial and incomplete data. By looking at every scene I will be gaining a more complete data set.

> Yeah! Sarah remembered the difference between "method" and "methodology" and properly labeled the section as "Method."

Sarah provides a good explanation for how a content analysis fits with the nature of her study. She should, however, identify early in the paper if her content analysis is qualitative or quantitative. You want to be clear and direct with your readers. Don't make them guess, or assume that they will figure stuff out on their own.

The world of video games is vast. There are many different types of games flowing across many different platforms. For this study, I have chosen to narrow down the field of study to Console Games and, due to a lack of options, I will narrow the field further to currently available games that are playable on the PS4 console. While I am choosing to use the PS4 simply because that is the console that I own, A SuperData report found that "Over the past few years, a growing percentage of console sales have moved away from retail-based physical sales to digital channels… the Nintendo Switch enters the console market at a time when Sony (PS4) is dominating with an install base of almost 55 million, and 26 million for Microsoft's Xbox One" (Nintendo Switch: The SuperData Take, 2017). This report shows that the gaming platform that I intend to use is a popular platform and so the results that I end with should effect a large population of people. Many of the games that I will be looking at will also be playable on other platforms as well but that is not a major criterion for this study. The PS4 console is one of the more popular consoles and consoles, while more limited than PC gaming, is much more popular as a whole. It is easier for individuals to buy a PS4, used or new, than it is to build a PC. It is important to note that the video game world is constantly changing and growing. This study will only focus on a very small part of the industry. Future research is necessary to continue tracking and understanding data.

Sarah is on track with a strong justification for why she is limiting her study to the PS4 console with a call for continued research as games and platforms continue to evolve.

This narrow approach will allow me to look in depth into three or four popular video games rather than a broader look at ten. This smaller pool will allow be to look deeper into the games that I do use for more thorough and complete data on the games that I do look at. Additionally, I have chosen to look at Mehrtens gaming metric as a means of evaluating my data for this study. Mehrtens (2016). In his thesis, Mehrtens starts with the Bechdel-Wallace test and adapts this test to use as a basis for a new metric designed to look specifically at video games. The Bechdel test is a test that was first introduced as an over simplistic formula to measuring a woman's role in a film. Mehrtens uses the Bechdel test to create the Prototype Stark Gaming Metric or pSGM as a means of generating numerical data based off of how "typical" or "atypical" the games are. This metric will be important for my study as it will allow me to effectively collect and understand the data of the video games that I will be studying.

This metric, while based off of the Bechdel test, should provide in-depth data into the video games that are reviewed. Merhtens takes a very vague test, The Bechdel Test, and creates a qualitative metric for studying the full content of videogames for gender and racial discrepancies. Merhtens explains that to get accurate data the researcher must compile data from the entire video game, instead of looking at just the promotional data or the opening scenes. This idea is very important for my own research because by looking at the full video game I will be able to compile accurate data.

Sarah's use of the Bechdel-Wallace test to generate a metric provides an efficient means for her qualitative analysis.

One aspect that separates my work from Mehrtens' is that I will be focusing strictly on gender and does not include the racial component. My initial goal was to include both gender and race in my original research plans. After a closer look at the deadlines for this research I have narrowed my field of study to include only gender. I believe that this will create more specific results surrounding gender. Additionally, similar study that looks only at race will be a good area for future studies. While this is taking away one component of study it will allow me to gain gender specific data. I will also be able to test the pSGM for gender specific results.

Analysis

I took note of the gender of each opponent faced and the results were predominantly male. In fact, withholding Sigrun (Irene's daughter, who defected), There was only one female opponent in this game (Irene). I counted 669 obviously male opponents with 120 opponents who were in armor that was too large and bulky to discern a gender. Additional opponents included, 18 attack dogs, 97 robots of various shape and skill set, and 3 alligators. I think for future reference I will also record any time a women is shown on the screen, because there were two cut scenes that showed women extras, while I didn't think it was necessary at the time to include that data I think that It might prove insightful towards future research.

When looking at clothing choices, I think that *Wolfenstein II* uses a pretty mild wardrobe. Most characters are dressed appropriately for the character that they play. I did notice and interesting character development, however. The side character, Sigrun, is an interesting character. She is Irene's (antagonist) ride-hand woman until she refuses to behead an ally of William. This character defects to the good side as after she does she goes from wearing a respectable skirt suit that showed little skin to a more traditional German outfit that accentuates her cleavage. The buttons on her shirt are stretched almost to the snapping point.

Sigrun's character has several turning points during this game. After she makes the transition to the "good" side she is ridiculed for her past as a Nazi and often is heard asking Sister Grace to stop calling her a Nazi. After a dramatic cut scene where Sigrun gives the "good" side codes to the Nazi defense system she is again called a Nazi by Sister Grace. This time Sigrun stands up for herself and chokes out Sister Grace, gaining her respect in the process.

Caroline is the woman that Sigrun refused to behead. Caroline was an ally to the good side and was only part of the game for a few of the beginning scenes. She had a brief fighting cut scene and was killed within one hour of starting the game. This person had very little agency in this game. However, her gruesome death is utilized as a storyline carrying plot point in this game. William continues to "talk" to Caroline throughout the game almost as if her memory became an internal diary. Her death effects other side characters and creates tension amongst the allies. Without her death the game could still continue but by having Irene behead Caroline so quickly in the game it sets the expectation that Irene is a very bad person and that you are playing on the good side, so it's ok to kill hundreds of enemy soldiers in revenge.

Eventually the main motives of the characters change. William's girlfriend Anya is heavily pregnant with twins. Her role in this story has always been unbelievable as she joins in on battle and remains very active running, jumping, and dodging enemy bullets. However, she remained completely covered until the final scenes of the game where she performs a roll dodge, pushing William out of the way and throwing a grenade that kills several enemies. After she throws this she dramatically removes her shirt, starts screaming and shooting more enemies while straddling William. Her bare chest and face becomes covered in blood during the process.

In order to actually go through with this project I found that it was necessary to make changes to my initial plan as laid out in the methods section. Initially, I had made plans to look at three or four video games. However, I did not have the time to complete four games. In my future research I will look at more games as a way of truly testing this method and gaining more information surrounding the topic.

Part of my initial plan was for me to code the video game advertisements with the rest of the data in order to understand the messages that get transmitted to the largest of populations. Because the video game advertisements get seen by the most number of people and can often be the only source of information about videogames for people who are not interested in them. It is important to understand the messages that those advertisements transmit. For these reasons, it is important to look at advertisements in future research.

Sarah's analysis is good, but a stronger narrative within the analysis may help guide and direct readers through her analysis. And she should be careful to keep the narrative within her themes and the patterns which emerge from the analysis.

Conclusions

The results of this study were pretty indicative that videogames underrepresent women in videogames. With only five characters being female and over 600, close to 700 males taking part in this game it is clear that in

this case women simply aren't really included. I have two theories about this underrepresentation. One theory I have for this underrepresentation of "bad" female characters is the idea that people feel more uncomfortable killing women than they do men. Women have the image of being softer and gentler than men and it may be harder to kill women than it is to kill men because it feels more morally wrong?

It is also important to look at the roles that other women played. One woman was a mother and another was pregnant with twins. This broadcasts the functionality of a woman as a baby maker first and foremost. As explained earlier when the developers tried to push past those boundaries they end up setting unrealistic ideas, like the idea that a heavily pregnant woman can run into battle and perform difficult evasive action as needed as while carrying twins.

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13 Content Analysis - Quantitative

Chapter Outline

What Will I Learn About Content Analysis?

In the image you see here, Republican nominee Donald Trump and Democratic nominee Hillary Clinton are depicted during the 2016 U.S. Presidential campaign. The two candidates raised almost 2 billion dollars for their respective campaigns. The funds came from a variety of sources and were used for numerous things during their 2016 campaigns. One of the issues discussed quite a bit during the election was the significance of Super PACs (Political Action Committees) and their potential impact on the election. There are no limitations on the amount of money that Super PACs can accept in donations, but (in theory) the PACs must operate independently from the candidates' campaigns. Such organizations spent millions of dollars in 2016 trying to promote or defeat candidates in numerous state and national elections. Let's put on your scholarly research caps: how do you think Super-PAC advertising differs from the advertising put out by the candidates themselves? Super PACs are not managed by the political parties and are free to create their own messages. Could this freedom lead to a different kind of message production or agenda? Quantitative content analysis could be used to explore the question. In Chapter 13, which is a continuation of Chapter 12, you will learn how to conduct research in communication using quantitative content analysis.

Definition and History of Content Analysis

Content analysis has various definitions. Berelson (1952) describes content analysis as a research technique for objective, systematic, and quantitative descriptions of manifest and latent content of communication. Krippendorff (1980) considers content analysis to be a research tool for making replicable and valid inferences from data to their context. Cole (1988) states that the method is a way to analyze written, verbal, or visual

communicative messages. Berger (1991) states that content analysis is "a research technique that is based on measuring the amount of something (violence, negative portrayals of women, or whatever) in a representative sampling of some mass-mediated popular form of art" (p. 25). Neuman (1997) defines content analysis as a method for gathering and analyzing the content of text. A "text" for Neuman is anything written, visual, or spoken. Each definition shares some common elements which we use to make our definition of content analysis. Content analysis (CA from here on) is a research method that systematically describes, categorizes, and/or makes inferences about communication messages. Thus, the claims that one can make using content analysis vary extensively depending on whether you use qualitative or quantitative analysis. In this chapter, we dissect each part of the definition.

In the 18th century, Swedish scholars analyzed 90 hymns entitled the *Songs of Zion.* The hymns were not from the state-sponsored Swedish church, but were gaining in popularity among people, and many in the establishment declared the songs blasphemous. Scholars and clergy conducted a CA-based comparison of religious symbolism in the *Songs of Zion* and the state-sponsored songs and found no significant differences. Thus, the *Songs* were deemed acceptable for use (Dovring, 1954). This study revealed the utility of CA as a way of exploring communicative messages. CA was again used in the 19th century to analyze hymns, advertisements, magazine and newspaper articles, and political speeches (Harwood & Garry, 2003). The method really took off during World War II, when the United States government sponsored projects by Harold Laswell to study propaganda. The projects revealed the extent of propaganda in the media and its influence on public opinion (Laswell et al., 1965). Laswell and his colleagues continued to develop methods of content analysis during and after World War II.

Concurrently with Laswell, individuals interested in personality traits, particularly inspired by the work of Edward Sapir, began to use content analysis to study human behavior. Research such as Dollard and Mowrer's (1947) studies on discomfort and relief, and Raimy's (1948) research on positive–negative ambivalence expanded our understanding of human psychology.

1) Himelboim, McCreery and Smith (2013) use content analysis to explore political views and ideology on Twitter. 2) Cagle, Cox, Luoma, and Zaphiris (2011) use CA to describe how Muslims are depicted in American media. 3) Waters and Lo (2012) discuss how non-profit organizations use Facebook. 4) Eskjoer (2013) explains the influence of global media systems on shaping the discussion about global climate change. 5) Stephens (2012) categorizes news stories and polling by news media before the U.S. invasion of Iraq.

Gerbner and his research team started to research the effects of a growing presence in American's lives—television (Gerbner, Holsti, Krippendorff, Paisley, & Stone, 1969). Since then, CA has been used to analyze media, advertising, and interpersonal, organizational, rhetorical, and other kinds of communicative messages. CA is, in fact, one of the fastest growing methods used in mass-communication research (Macnamara, 2005; Neuendorf, 2002).

CA is currently employed to study a wide array of theoretical questions. Researchers have extensively used CA to study media processes and media effects. Some examples include those in the box below.

Other studies have combined media (mass communication) research with other areas of communication studies.

1) Leonard and Toller (2012) explore the role websites play in discussing suicide. 2) Rose et al., (2012) examine the performance of gender via self-created images on Facebook. 3) Garner, Kinsky, Duta, and Danker (2012) expand organizational dissent into primetime television by looking at how individuals dissent on primetime television.

In a CA of non-media related communication, researchers have found out quite a bit about human behavior. For example, look to the information in the following box.

1) Giles, Linz, Bonilla, and Gomez (2012) find that minority groups are more likely to be stigmatized by police officers in police/driver interactions. 2) Bisel and Arterburn's CA (2012) identifies five reasons why organizational members refrain from giving negative upward feedback: they predict harm to themselves,

construct their immediate supervisor as the responsible party, question their own expertise, predict the supervisor's deafness, and consider the timing as inopportune.

The purpose of providing varied examples is to show the depth of what CA can do. In fact, these examples are just the tip of the iceberg. CA can be a useful methodological tool for a variety of research purposes. The majority of content analyses are quantitative in nature. The following sections of this chapter describe, step-by-step, how to conduct a content analysis.

Content Analysis Data

The data for a CA all depends on what you want to study (as with any research method). Before collecting your data, you should have a clear objective, research question(s), or hypotheses. Once you have that foundation, you can be more certain your data and analysis are relevant for the research. Remember, CA systematically describes, categorizes, and/or makes inferences about communication messages. Based on that definition, the data for a CA can be almost anything. If you look back to Chapter 5 on Data, data are texts, observations, self-reports, and other reports of communication. Under this broad umbrella is a plethora of options. The key for a researcher is to make sure that you choose the right data and that you have an appropriate sample from your population to address your research objectives, questions, and/or hypotheses.

In Waters and Lo's (2012) study of non-profit organizations' use of Facebook, the data are 225 random Facebook pages. Since Waters and Lo are interested in how non-profits in different nations use Facebook, it is appropriate for them to use Facebook pages of non-profits in different countries as data. Their sample is random, and the three countries (75 Facebook pages per country) were chosen based on previously studied cultural differences between them. Therefore, their choice of content and sample is purposeful. Waters and Lo could have chosen any random number of Facebook pages from any nation in the world, but the nations were chosen for a reason. In Garner et al. (2012), a study about dissent on primetime television, the authors sampled "two weeks of primetime programming, defined as 8:00 p.m. to 11:00 p.m., on CBS, ABC, NBC, FOX, and CW. We recorded three hours of programming on five channels for 14 days, giving a sample of 210 hours of television" (p. 614). Since Garner et al. are studying organizational dissent on primetime television, the use of primetime television episodes as their data is appropriate. The networks listed are appropriate choices because they represent large segments of the American primetime viewing public. The choice of two weeks is appropriate to give the researchers sufficient time to effectively measure regular television programming, as opposed to only measuring one night.

A few key points about data need to be made. First, the objectives of the study determine the data of the study. Second, when collecting data for a content analysis, you need to be systematic in your choice of certain kinds of data. Each of the studies listed in this chapter justify their data: why they chose the data, how they ascertained the period of data collection and the size of the sample, etc. Third, when you write up your report, provide a detailed description of the sample, including the size of the data, the topic area, the time period, and any other pertinent information you can think of to help other people duplicate your research.

Let's say we want to conduct a study comparing television advertising sponsored by the Clinton and Trump campaigns and by PACs during the 2016 Presidential election. Our main kind of data is presidential television advertisements during the 2016 presidential campaign. Specifically, we need to somehow get a hold of all the ads produced, aired, and paid for by the Trump and Clinton campaigns, and by the various PACs. This may seem like a lot of work—and it is. However, this is our data collection. Unlike collecting surveys or interviews, in which case we are interacting with humans, with this kind of content analysis, our collection is archival. In other kinds of CA, we may work with people. We will talk about those later. Once we have found all of the ads, via YouTube or other Internet search engines, we recommend saving them somewhere so we do not lose them.

Now that we have defined the type of data you can use in content analysis, the next section describes the process of categorizing data.

Content Analysis Categories

Content categories are areas, themes, groupings, classes, or types with explicit boundaries into which units of content (data) are coded for analysis. Content categories develop from the following question: what content categories produce the data needed to address the objectives of the research? When conducting a CA, it is imperative to first conduct a thorough review of the literature to determine what categories other researchers have used in their content analyses of communication processes. Conducting a CA whose categories are based on previous research is called a deductive content analysis. For example: say you are interested in exploring the different political beliefs presidential candidates express during elections. A number of scholars have already developed categories for such an analysis, so looking to their work to develop categories for a CA is to your benefit (Benoit, 1999; Benoit & Glantz, 2012; Dover, 2006).

If you choose to create your own categories, you are conducting an inductive content analysis. The categories in a CA need to be mutually exclusive. For example, if you are conducting a CA on the beliefs of presidential candidates as displayed in PAC vs. candidate advertising, you should focus your study on their advertisements and the different beliefs depicted in the ads. The different beliefs (your categories, in this case, in a thematic analysis) should not overlap, but be mutually exclusive. Categories that overlap make it more difficult to distinguish differences or infer anything about communication messages. We will talk more about this later in the chapter.

> In his functional theory, Benoit (1999) argues that political campaign messages, like advertisements, are comparative messages. These kinds of messages have three functions: to acclaim or praise a candidate, to criticize or attack an opponent, or to respond to an attack. These functions are categories, themes, and groupings—all of them offer ways to analyze political campaign messages. You could analyze the advertisements in the 2016 election using these three categories.

Now that we have discussed data and the basics of content categories, the next section of this chapter defines units of analysis and explains how units of analysis are counted.

Units of Analysis

We should consider two important issues when determining units of analysis. First, in every content analysis, the researcher must choose the scale of the content they are going to code. Second, researchers need to think about how they are going to count the units of analysis.

The research objectives of a study determine the scale of the content being coded. In our study of presidential advertising, we have many options for our units of analysis. Do we want to analyze individual words in the ads, whole sentences, symbols in the ads, themes in the ads, or ads as a whole? The unit of analysis, therefore, is the specific element you are analyzing in the data. Let's say that we decide to code sentences in the ads to determine the functions of the ads. We can choose from two kinds of units of analysis: recording and context units.

The recording unit of analysis is the content you are analyzing, which can be identified and counted. In our presidential election study, individual sentences in every ad are the recording units. We can count sentences, and we can separate sentences into different categories. If we analyze an ad, we can separate the sentences into the different functions of a political ad as defined by Benoit (1999). If a sentence does not fit one of those categories, we can always create a miscellaneous category, but be careful that your categories don't overlap. Remember, we want the categories to be mutually exclusive.

The context unit of analysis is significant because, when we conduct a CA, we must often consider the context surrounding the recording unit. A sentence in an advertisement sponsored by the Trump campaign may say "Clinton is a leader." However, the next sentence may say, "However, she is a failed leader." Therefore, it is essential to look at the context surrounding the initial recording unit in order to make sure that you do not code a sentence into the wrong category.

Once you have decided on your recording units, and taken care not to code them into incorrect categories (considering the context), an important question is: how do you count your data? You can count data in three ways in a content analysis: frequency, space and time, and intensity or direction. Frequency refers to the number of times a unit is recorded in a message. Space is, for example, the amount of printed space devoted to a message in a newspaper ad, or how much of the front page of a newspaper is devoted to some idea. Counting in time, for

example, could be how many minutes a person speaks about a subject in an interview, or how many minutes are devoted to covering an election on the nightly news. Intensity or direction is how favorably or unfavorably, for example, an issue is discussed in a news story. News editorials are inherently biased. A CA of news editorials could dissect the level of bias.

While quantitative and qualitative content analysts will often count data in similar ways, their coding schedules, pilot testing, and analyses will often differ. The following two sections of this chapter address these issues. The following section discusses how to prepare a coding schedule, how to pilot test a content analysis, and how to check for intercoder reliability.

In our study of campaign ads, we are focusing on the individual sentences in the ads. Thus, the sentences are the units of analysis. As previously mentioned, we need to look at the context in which each sentence is placed so we do not place a sentence in the wrong category. In this particular study, let's count the frequency of categories so we can state how *often* a particular category or function of a political campaign ad is used.

Coding Schedule, Pilot Testing, and Intercoder Reliability

Depending on how you approach the creation of categories for a CA (inductive or deductive), you may have pre-determined categories. Coding could be done at the same time as category creation/development. If you want to conduct a CA, you need to systematically code the data to find your recording units of analysis. A helpful way to code data is by creating a coding schedule or coding sheet. A coding schedule is a sheet a researcher uses to track, record, and/or categorize the communication they are coding. The following box contains an example of a simplified coding sheet that we could use to analyze the presidential campaign ads in the 2016 presidential election.

With such a coding sheet, you could analyze individual sentences in presidential campaign advertisements and place each sentence into an individual category as proposed by Benoit (1999), and as shown in the following box. The categories describe the purpose of the sentences in the advertisements.

Sample Coding Sheet for Presidential Campaign Commercials

Name of Coder: _____

Advertisement Number
(provide each ad with a number to keep track of them): _____

Advertisement Sponsor: _____

Dates Advertisement Aired: _____

Sentence (unit of analysis)	Category	
1.	_____	Acclaim/Praise
	_____	Criticize/Attack
	_____	Respond/Defend
	_____	Miscellaneous
2.	_____	Acclaim/Praise
	_____	Criticize/Attack
	_____	Respond/Defend
	_____	Miscellaneous

3.	_____	Acclaim/Praise
	_____	Criticize/Attack
	_____	Respond/Defend
	_____	Miscellaneous
4.	_____	Acclaim/Praise
	_____	Criticize/Attack
	_____	Respond/Defend
	_____	Miscellaneous
5.	_____	Acclaim/Praise
	_____	Criticize/Attack
	_____	Respond/Defend
	_____	Miscellaneous

We recommend first conducting a pilot study with a portion of your data. A pilot study is a trial run. Imagine you collect 120 ads from the 2016 presidential campaign and then conduct a preliminary content analysis on 10% of the ads (12). The purpose of the pilot study is to check the coding process and see what problems potentially emerge in the coding and analysis. We will talk about this in a moment.

Next, consider how many people will be coding the data. If you have more than one coder, you need to think about how much agreement exists between the different coders in categorizing the data. Intercoder reliability is a statistical analysis of how similar and/or different coders are in coding content categories. Neuendorf (2002) states that intercoder reliability is a "necessary criterion for valid and useful research when human coding is employed" (p. 142). Various statistical measures are available to evaluate intercoder reliability: percent agreement (a basic measure), Cohen's *kappa* (κ), Spearman's *rho*, Pearson's correlation (r), and Krippendorf's *alpha*. For more information on these measures, see Neuendorf (2002) or Popping (1988). In most cases, your reliabilities should be above .75.

Now that you have an understanding of why you should pilot test your CA, develop a coding schedule, and conduct an intercoder reliability analysis, the following section outlines how you can report your results.

Quantitative Content Analysis

You can approach your data analysis and write up your results for a CA in various ways. Depending on whether you are conducting a quantitative or a qualitative analysis, your approach to results reporting may differ. Computer programs such as SPSS have made quantitative analysis easier to conduct. In a quantitative analysis, the reporting of your coding could start at a very basic level where you report the percentage or number of times a particular category occurs in the sample. You can then take quantitative analysis a step further by comparing the categories using a Chi-Square test to determine which category occurs most frequently. Benoit and Glantz (2012) conducted Chi-Square tests in their analysis of 2008 general election presidential TV spots. In their analysis they found, among other things, that television ads contained more attacks (65%) than acclaims (34%), and stressed policy (58%) more than character (42%). We discuss how to conduct a Chi-Square test in Chapter 17 on Inferential Statistics.

We could approach our study of 2016 presidential election campaign ads from either a qualitative or a quantitative approach. Our coding sheet is set up to conduct a quantitative analysis. If we sit down and watch 120 ads from each candidate for the 2012 election and code each of them (N = 240) based on the functional theory set forth by Benoit (1999), we could easily ascertain how frequently ads acclaimed/praised, criticized/attacked, responded/defended, or did something else for a candidate. We place each ad in one category. We then organize the results into a table like Table 13.1 (a hypothetical table, not a real analysis of presidential ads).

Table 13.1. Frequency Distribution of the Function of Presidential Television Ads in the 2012 Election

Candidate	Acclaim/Praise	Criticize/Attack	Respond/Defend	Misc.
Clinton (120)	65 (54.16%)	30 (25%)	25 (20.84%)	0
Trump (120)	45 (37.5%)	55 (45.83%)	20 (16.67%)	0
N = 240	110 (45.83%)	85 (35.42%)	45 (18.75%)	0

CA is a useful method. It can help us analyze large bodies of data and address a plethora of research objectives. However, CA does have its limits. CA does not address causality. While CA can point out changing trends or identify categories and themes, the method cannot account for why these categories or themes emerged/developed. Thus, you should be cautious not to over-estimate your results when conducting a CA. We will discuss issues of causality later in the book.

Summary

This chapter was a how-to guide to quantitative CA. CA can be approached from the social scientific, interpretive, and critical/cultural paradigms. It is a multi-faceted method. Hopefully, after reading the chapter, and the accompanying student paper, you feel comfortable enough to try your own quantitative CA. Next is Chapter 14 with a how-to guide to discourse analysis.

Key Steps & Questions to Consider

1. Content analysis is a research method for describing, categorizing, and/or making inferences about communication messages.
2. CA dates back to the 18th-century research on the *Songs of Zion*. CA grew tremendously during World War II with the work of Laswell and his colleagues.
3. The type of data you use in a CA is flexible and depends on your research objectives. Data can vary from texts to various kinds of analyses of human behavior.
4. The recording unit of analysis is the content you are analyzing, which can be identified and counted. For example, we can count sentences, and we can separate sentences into different categories.
5. The context unit of analysis is the context surrounding the recording unit. Context is significant because when we conduct a content analysis we must often consider the context surrounding the recording unit.
6. If you want to conduct a CA, you need to systematically code the data to find your recording units of analysis. A helpful way to code is by creating a coding schedule or coding sheet. A coding schedule tracks, records, and/or categorizes the communication it is coding.
7. A pilot study is a trial run of your CA that helps you work out any potential kinks in your process and procedures.
8. Intercoder reliability is a statistical analysis of how individual coders differ or agree in their coding of content categories. You can use percent agreement (a basic measure), Cohen's *kappa* (κ), Spearman's *rho*, Pearson's correlation (r), or Krippendorf's *alpha* to test reliability. Your reliabilities should be above .75.
9. For quantitative analysis, the reporting could start at a very basic level where you report the percent or number of times a particular category occurs in the sample. Quantitative reporting can be taken a step further when you compare the categories using a Chi-Square analysis to see which categories occur the most.
10. Remember, a CA does not show causality.

Activities

1. Divide the class into groups. Have each group watch the same episode (or multiple episodes) of a television show (e.g., *Game of Thrones, The Big Bang Theory, Mad Men, Family Guy, The Simpsons*). The assignment for each group is to code the humor in the episode(s) using a quantitative approach. Group 1 will be tasked with finding and using pre-existing humor categories (a deductive content analysis). Group 2 will develop its own categories (an inductive content analysis). Group 3 will let the categories emerge from the data. Compare the results from the three groups. What differences are evident in the results? How did the different approaches

influence the results?
2. Using the results from Activity 1, have each group run intercoder reliability on their results.
3. Run a variation of Activity 1 using a television soap opera. The focus is on images as text. What does a CA of images as presented in a daytime soap opera tell us about how Americans are portrayed in this genre?

Discussion Questions

1. How can the context unit of analysis influence our understanding of the data in the content unit of analysis?
2. What role does the unit of analysis play in a CA? Why should a researcher be concerned with the unit of analysis?
3. How might a quantitative researcher and a qualitative researcher approach the same CA study differently? What aspects of content analysis may change between quantitative and qualitative?
4. Why is intercoder reliability relevant in a CA study? After all, all the coders are looking at the same data and using the same categories.

Key Terms

Coding Schedule
Content Analysis
Content Categories
Context Unit of Analysis
Deductive Content Analysis
Inductive Content Analysis
Intercoder Reliability
Latent
Manifest
Mutually Exclusive
Pilot Study
Recording Unit of Analysis
Units of Analysis

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Undergraduate Quantitative Content Analysis Paper

Good Housekeeping and Negative Social Comparison

Benjamin Smith

In our society, body image has become very important to most people to various extents. Women are constantly bombarded through the media with what the ideal figure is etc… which inevitably leads to many problems. I will use content analysis to analyze the magazine *Good Housekeeping,* which has an audience of 23,916,000, to see the breakdown of what they focus on in terms of body image for women, the target market of the magazine (Hearst Women's Network, Good Housekeeping Demographic Profile, n.d.). Obviously, there are different aspects to achieving a healthy body image, such as exercise, eating healthy and the way you present yourself (appearance). I believe an analysis of the contents of *Good Housekeeping* will show that there is an uneven distribution in the various aspects in achieving a healthy body image, which is detrimental to the self-esteem and over all well being of woman in society.

Benjamin has an effective opening to his paper. He sets up the reason for his content analysis (body image), explains why the reason is relevant to society, and describes the primary source of his content (*Good Housekeeping*).

Method

To conduct my analysis of *Good Housekeeping* I will be using content analysis. I have obtained the June 2011 issue of *Good Housekeeping* and picked three categories to look at as targets. The first category is food. This category is looking at any pages that target health foods, healthy options, and diet foods to target weight loss and healthy habits. The second category I am looking for is body appearance, which includes pages/articles that deal with the woman's appearance, such a slimming outfits and styles/make-up that are looking to make you appear younger, healthier and thinner. The last category I am looking at is actual exercise for weight loss and healthy living.

First, Benjamin may find that one issue of a magazine is insufficient for his content analysis. The articles and ads in one issue may not represent the normal content of the magazine. A random selection of multiple issues spanning a year (or even multiple years) may provide stronger results.

My research question: Is there an uneven distribution in body image factors in the media targeting women? I predict an uneven distribution in the three categories that are vital to achieve healthy living, weight loss, and an overall body image as described above. After sorting through the pages of *Good Housekeeping* and categorizing the pages that fit into one of the three categories, I will analyze them and look at the prevalence of each to see if there is an even distribution or if more emphasis is put on certain categories which will cause the women to be ineffective in their pursuit of the overall healthy body image, weight and healthy lifestyle.

Benjamin should be cautious in laying out his research question. He sets up a null statement (he does not take a position on how he thinks the data will play out in the research question). But then he shifts and lets his personal opinions drift into the research. One must always be cautious in social scientific research to avoid the issue of bias. His prediction of an uneven distribution could be interpreted as bias and could influence the coding process.

Theory

Social Comparison Theory

Social Comparison Theory deals with how individuals compare themselves with others in our society. As we experience and see others, we continuously compare ourselves to others making either positive or negative comparisons based on how we feel about ourselves (Schwartz, & Andsager, 2011). Generally, the media portrays body images that are nearly impossible to achieve, which undoubtedly leads to frustration and decreased among the individuals making the comparisons. The media no longer portrays just body images, but also ways to achieve a better body image. If there is a skewed coverage of how to achieve a better body image, by this I mean more emphasis put on one aspect instead of the many aspects needed, then there will not be success in achieving the desired outcome. This, as part of the social comparison theory, will lead to increased dissatisfaction among viewers of the media because there will be lower self esteem as they make their comparisons. This will occur because the ways to achieve the ideal body image are supposedly given to you in the media, but you are still unable to achieve the outcome even when you are told directly how to. This whole process can repeat itself leading to women actually going the opposite way of what they are trying to achieve, which is a better body image. The media will therefore be causing more harm with regards to the social comparison theory then they would if they gave an even distribution of the categories needed to achieve a healthy body image and overall lifestyle.

Benjamin has integrated theory providing a strong foundation for the study. Social Comparison Theory is useful for understanding the content of his analysis. He can strengthen this section by providing evidence and source support for many of the claims he makes. For example, he states that "The media no longer portrays just body images, but also ways to achieve a better body image," yet no documentation is provided to prove the statement.

Results

Good Housekeeping breaks down their publication into the categories they cover and the percentage of which they cover. Of the three categories I am looking at, their relating categories are Food & Nutrition, Health (Exercise/Wellbeing) and Beauty/Grooming (Hearst Women's Network, Good Housekeeping Editorial Coverage, n.d.). Food & Nutrition are said to account for 20.2% of their publication, Health for 7.5% and Beauty/Grooming for 6.2% (Hearst Women's Network, Good Housekeeping Editorial Coverage). After looking through the June 2011 issue, I found 39 of the 202 pages were targeting health food/nutrition, 21 pages targeting Beauty, which deals with body image appearance, and 1 instance targeting exercise for healthy living/weight loss. Therefore, my percentages are the following, Food/Nutrition are 19.3%, Beauty/Grooming is 10.4% and Health is 1/2%. Food/Nutrition is close to what *Good Housekeeping* reports (20.2% reported compared to 19.3% found); Beauty/Grooming is fairly close to the reported value (6.2% reported compared to 10.4% found). The last finding is the health, which is reported at 7.5% and found at 1/2%. Although *Good Housekeeping* openly reports what the magazine breakdown is, and that the focus is not evenly distributed, the actual distribution is skewed a lot more than reported which may have drastic impacts on women's self esteem. *Good Housekeeping* magazine touts itself as being the most trusted source for advice about food, diet, beauty, health, family and home (Hearst Women's Network, About Good Housekeeping Magazine). The fact that there is not an even distribution in their coverage of these three categories can lead to more harm to the women they are serving, as all three categories are necessary to achieve the outcome these women are presented with in the magazines.

Benjamin can strengthen his results section in a number of ways. First, he can move the data provided by the Hearst Women's Network from Results to the end of his Introduction section. A reader assumes any results in Results section are from the current study, not from a previous study.

Second, a reader can get lost wading through all the categories and percentages. A table (or a series of tables) can help a reader deal with such data. Refer back to Table 13.1 and see how quickly you can identify key results. The write-up can then be focused on the highs and lows of the data.

Finally, Benjamin could move the comparison of his results with Hearst Women's Network's information, and the interpretation of his results to a new Comparison & Interpretation section or to Conclusion section of his paper.

Conclusion

With the combination of media influences and various theories, such as the Social Comparison Theory, it becomes clear that what articles and topics that are targeted towards women could potentially have a profound impact on their health and self-esteem. To have a healthy lifestyle and better body image, it is important to not only eat right, as 19.3% of *Good Housekeeping* covered, but there also needs to be an equal amount of exercise and even appearance that plays a key role in a healthy body image. When one of these is focused on more than others, it can lead to false perceptions of what needs to be done. If a woman believes eating healthy meals is all that is needed to have a more positive body image and slim down, then if the food alone does not accomplish that, then there is a higher likelihood that she will have more negative comparisons about herself. It is for this reason that media such as *Good Housekeeping,* who have a reputation as a trustworthy source for women, need to portray a fuller picture for the women they are targeting in order to actually improve their self image, instead of possibly making problems worse

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14 Discourse Analysis

Margarethe Olbertz-Siitonen

Chapter Outline

Why Study Discourse?

Let's explore some good reasons to study discourse. Analyzing discourse has the advantage of working with first-order data, which means you will observe and discover authentic practices and real-life concerns. Talk and texts can provide you with insight into the ways people construct and account for social reality and the nature of social action. In other words, by studying discourse, we uncover what people actually do by means of certain lexical choices, rhetorical formats, particular lines of argument, and so on. In the case of spoken discourse, *how* something is said can also be important. For example, you might find that seemingly random or irrelevant details —such as hesitations, pauses, or the volume of speech—are meaningful resources in social conduct.

What you discover when studying discourse can have all sorts of practical, political, and societal implications. This is because discourse is a locus of social interaction. What happens in society largely happens through discourse. Findings on discursive practices can increase public awareness of how gender inequalities, power, or culture and cultural differences are our own contrivances that, as social constructs, are inextricably tied to discourse. Piller (2012) argues, "we do not have culture but […] we construct culture discursively" (p. 5). Observations on the discursive construction of culture might encourage treating people as individuals whose activities are situated within rather than determined by group membership. On a smaller scale, insights into conversational structures can help facilitate effective communication in institutional settings. Understanding how a single word is enough to change the course and outcome of talk is relevant for personnel in service encounters, such as interactions between doctor and patient, or clerk and customer (see Stokoe, 2014). In fact, the Conversation Analytic Role-Play Method (CARM), which is a communication skills training program developed by Stokoe (2014), builds on research within a larger framework of discourse studies.

Discourse runs through all aspects of human life. Analyzing discourse or "what people do" (Potter, 2016, p. 190) can tackle a number of different communication research problems. Whether your research questions are open-ended (e.g., how is discourse organized and what is achieved through that organization?) or directed at a specific social fact (e.g., how is group membership constructed?), employing discourse analysis will enable you to shed light on core characteristics of the issue at hand.

Let's take a closer look at basic premises and principles of discourse analysis. Over the next sections, you will find answers to the following questions: What is discourse analysis? What kinds of data are needed? How do I transcribe data? How do I conduct a discourse analytic study?

What is Discourse Analysis?

Discourse analysis (DA) is really an umbrella term describing a field of study. DA is not a single method but includes a number of different approaches. These approaches can be distinguished by research interests, underlying theoretical or philosophical considerations, the kind of data utilized, and analytical procedures. In general terms and—as we will see further below—in a more traditional sense, DA stands for the study of texts and talk, focusing on language-use and on language as a means of social action (see Antaki, 2008; Potter, 2016; Potter & Hepburn, 2008; Rapley, 2007; Silverman, 2011).

A comprehensive definition of DA

In their anthology *Discourse Analytic Research: Repertoires and Readings of Texts in Action,* Burman and Parker (2017) bring together a selection of various discourse studies. Burman and Parker consider what the collected contributions have in common, thereby providing a comprehensive and far-reaching definition of discourse analysis.

According to Burman and Parker (2017), all the studies share "a concern with the ways language produces and constrains meaning, where meaning does not, or does not only, reside within individuals' heads, and where social conditions give rise to the forms of talk available. In its various forms, discourse analysis offers a social account of subjectivity by attending to the linguistic resources by which the sociopolitical realm is produced and reproduced." (p. 3)

Burman and Parker (2017) continue by underlining how "all involve an attention to the ways in which language (as with other representational systems) does more than reflect what it represents, with the corresponding implication that meanings are multiple and shifting, rather than unitary and fixed." (p. 3)

DA is characterized by its commitment to social constructionism (Potter & Hepburn, 2008; Silverman, 2011). What we say and write is not approached as objective accounts of social facts, but as constructions which build "versions of the world, of society, events and inner psychological worlds" (Potter, 2016, p. 190). Within this broad framework, various theoretical perspectives guide research on discourse, and you can choose among a number of methods. Below, you will find an overview of the most common approaches, their scopes, and typical data, compiled by Antaki (2008). While Antaki stresses that the table is not conclusive, it still provides a sufficient picture of possible research approaches in DA.

Table 14.1. Discourse analytic methods and data according to researchers' interests (Antaki, 2008, p. 432)

What actions are to be revealed	Candidate theory/method	Typical data
Personal meaning-making	Narrative Analysis, Interpretative Phenomenological Analysis	Interviews, diaries, autobiographies, stories
Imposing and managing frames of meaning and identities	Interactional Sociolinguistics, Ethnography of Speaking	Audio and video recordings, ethnographic observations
Accomplishing interactional life in real time	Conversation Analysis	Audio and video recordings
Displaying and deploying psychological states; describing the world and promoting interests	Discursive Psychology	Audio and video recordings, texts
Constituting and representing culture and society	(Generic) Discourse Analysis	Texts, interviews

Constituting and regulating the social and the political world; the operation of power	Critical Discourse Analysis	Official and unofficial texts, speeches, media accounts and representations, interviews

Antaki's (2008) table shows how approaches study a range of micro- and macro-level phenomena. While conversation analysis is concerned with the stepwise organization of talk and the accomplishment of mutual understanding, studies in critical discourse analysis take a political stance and examine discourse that contributes to the construction and reproduction of power. Of course, the multitude and diversity of approaches somewhat blur the scale of DA. However, according to Antaki (2008, p. 432), any discourse analytic work is characterized by four key features: 1) a focus on natural talk or texts, 2) an appreciation of words as embedded in their co-text and wider context, 3) a sensitivity towards the non-literal meaning of words, and 4) special attention to the social actions achieved through language use. The four points outline the frame of DA and provide valuable benchmarks for your own analysis.

In recent years, DA has seen a shift towards multimodality (Jones, 2012). Across approaches, scholars have started to focus on language use as only one out of many equally relevant resources (or modes) of communication. Beside language, modes include gestures, gaze, body orientation, or the design and layout of documents. "*Multi*modality," from this perspective, is approached holistically with no mode treated by the analyst as more important than the other.

In sum, work conducted within the framework of DA typically follows a qualitative, inductive, and data-driven line of inquiry. Common aims of discourse studies are to uncover the underlying patterns and structures of meaning-making in spoken and written discourse and to trace the ways that social reality is produced, negotiated, and reinforced in everyday discursive practices (see Keller, 2013).

Types of Data in Discourse Analysis

What kind of discursive material you should collect is informed by your research interests and by the approach you have chosen. For example, if you like to study how immigrants reflect on their experiences living abroad and organize these experiences into individual storylines, your approach likely will be narrative analysis (Antaki, 2008). Your study will use data containing personal accounts of immigration, such as open-ended interviews, blog entries, articles, journal entries, or even autobiographies. On the other hand, a research project can develop in reverse order with data informing your research interests and approach. This is the case when you are allowed access to an existing set of data or you simply come across an interesting phenomenon you would like to study.

As mentioned above, one unifying feature of most DA approaches is their concern with natural texts and talk. In other words, the study relies on naturally occurring data. If you are uncertain whether the data can be considered natural, a memorable rule is Potter's (2002) "dead social scientist's test" (p. 541): data are naturally occurring when the recorded situation would have taken place despite the researcher's existence. The Potter rule clearly excludes social experiments conducted in controlled laboratory settings and surveys, and questions the applicability of interviews or focus groups to discourse analysis. Such modes of data collection yield biased material since they are influenced and shaped by the researcher's informed decisions.

However, qualitative interviews and focus groups are often justified when we approach them as social constructs themselves, for example: "interviews *as* discourse data" (Nikander, 2012, p. 397; emphasis added). This means that the data are seen within the context of their production: what participants tell and how they tell it is tied to the circumstances of being interviewed. Participants' answers should not be taken as factual information. Second, researchers may place emphasis on the role of the interviewer in their analysis (see, e.g., Nikander, 2012). Focus groups and interviews as discourse data include the option of studying interviews and focus groups entirely in their own right. For example, exploring the activities involved in the mutual organization of research interviews can help unveil underlying expectations about participating in these kinds of data collection. Similar to the service encounters mentioned above (Stokoe, 2014), such analysis has the potential to further demonstrate how one word can change the outcome of an interview.

> For example, in a discursive psychological study on question formats in market-research focus groups organized in Germany, Puchta and Potter (1999) discovered that moderators use extended or elaborate questions to ensure interviewees' participation and "guide the responses made by participants" (p. 332). Such

findings demonstrate how moderators or interviewers are crucially involved in the production of answers.

An ongoing debate is whether data containing mundane conversations or institutional talk can ever be completely free of a researcher's interference. The recording of natural interactions involves setting up and operating a video camera, microphones or audio-recorders, and keeping field notes (Silverman, 2011). Labov's Observer's Paradox (1972) identifies the problem: "the aim of linguistic research in the community must be to find out how people talk when they are not being systematically observed; yet we can only obtain this data by systematic observation" (p. 209).

On the other hand, many forms of written language are produced and archived irrespective of academic interests, satisfying the requirement of authenticity particularly well. Even certain audio/visual recordings may be considered truly natural, including TV interviews, moderated talk shows, vlogs, and so on. The recordings were produced for larger audiences and are an essential part of these recordings' meanings. Social media brings with it the added advantage of allowing the unobtrusive collection of data. For example, the camera is an essential element of video-mediated talk. Automated chat logs are another source of genuine discursive data made available by everyday technology.

Considering research ethics

As with any kind of study involving humans, you have to follow the principles of ethical conduct in research, such as getting informed consent from your research participants. However, keeping participants' integrity in mind is particularly important with naturally occurring data. Authentic data gives you access to people's real-life concerns and may contain sensitive information that should not be traceable to any particular person. Protecting your participants' identity is important.

How to Transcribe

The process of data collection often includes preparing and organizing the material for later analysis. In the case of spoken discourse, you are required to transcribe your data (transferring recorded interaction word-by-word into written form). We recommend that you start rough drafts of transcripts during the process of gathering research material. This allows you to get acquainted with the details of the recordings, which may help build research questions and focus any additional data collection.

Transcripts are important to DA for four reasons. First, transcripts are a way to deal with the transient characteristics of talk, which would otherwise be difficult to trace or remain inaccessible. When fixed in written form, spoken discourse becomes available for thorough and recurrent examination. Second, transcripts have the practical advantage of allowing quick access to keywords with the help of a search function. Third, the process of transcribing compels repeated review of the data, providing insight and forming an initial picture of participants' practices. Transcriptions are considered the first step of analysis or a "major 'noticing device'" (ten Have, 2007, p. 95; see also Kowal & O'Connell, 2014). Finally, any kind of DA study needs to be open to scrutiny based on the "'validity through transparency and access' principle" (Nikander, 2008, p. 227) of qualitative research. You are expected to make the analysis available to your readers and to demonstrate what exactly your observations and reflections are based on. By including in your research report transcripts of analyzed extracts, you establish reference points and ensure that others can follow your analytical argument.

When you transcribe, you can follow specific transcription conventions—rules developed to mark temporal and prosodic features of talk including pauses, intonation contours, stress and volume. The conventions you choose depend on your approach. Kowal and O'Connell (2014, pp. 74–75) provide an overview of four notation systems commonly utilized in DA. Transcripts usually consist of three columns, including line numbers, the current speaker or speakers (using masked initials or pseudonyms), and a written version of their talk. The rough scheme below in Figure 14.1 gives you an idea of the prevailing form of transcripts:

Figure 14.1

Line Number	Speaker(s)	Communication
1	name 1	talk

2		talk
3		talk
4	name 2	talk
5	name 1	talk
6	name 3	talk
7		talk
8	name 2	talk

We highly recommend numbering each line of the transcript, even if the turn of one participant stretches over several lines. Line numbering ensures that the discourse in your analysis can be traced back to the transcript with little difficulty. Second, use a monospaced font—such as Courier New—to produce a clean and aligned transcript. A monospaced font allows you to precisely mark, for example, overlapping talk (see example [2] lines 02–03) in the following box.

Two examples of transcripts

```
(1)
(from Wells, 2011, p. 443)

 1. I: Um-hum.
 2. R: Yeah. I do… my daughter was about ten then. And
 3. That's where I got something like a little gap
 4. Because I think I end up leaving her then for a year or two.
 5. But…and because I know when I would
 6. Come to my mother's just to leave her, it would
 7. Almost be just antagonizing, you know, all the
 8. Screaming and pulling on me and, you know,
 9. Because she wanted me…she wanted to be with me.
10. I: Um-hum.
11. R: She wanted to stay with me. She wondered 'Why
12. you going and I'm not going?'
13. I: Um-hum.
14. R: And, ah, and it got to really be [ ] real strenuous on me and
15. my daughter

(2)
Ava and Bee (from Sidnell, 2010, pp. 52–53)

01 Ava: I'm so:: ti:yid. I j's played ba:ske'ball t'day since the
02 firs' time since I wz a freshm'n in hi:ghsch[ool.]
03 Bee: [Ba::]sk(h)et=
04 b(h)a(h)ll? (h)[(°Whe(h)re.)
05 Ava: [Yeah fuh like an hour enna ha:[lf.]
06 Bee: [.hh] Where
07 didju play ba:sk[etbaw.]
08 Ann: [(The) gy]:m.
09 Bee: In the gy:m? [(hh)
```

As can be seen in the two examples, transcripts of talk differ remarkably in their level of detail. How thorough you need to be is informed by your research interests. The first case stems from a study exploring a mother's accounts of maternal identity who had temporarily lost the custody of her children (Wells, 2011). Focusing only on the wording of her narrative is sufficient for the study. The second transcript, on the other hand, has a conversation analytic background and relies on the precise notation of stretches and overlaps. The detailed transcript allows for a fine-grained analysis of the organization of talk, such as the mutual accomplishment of turn-taking (see Sidnell, 2010). A multimodal approach to interaction further calls for transcripts that take account of all relevant modalities. Multimodal transcripts include notations of verbal activities and prosodic features, gestures, gaze, and bodily orientations, and their exact timing and progression (see Mondada, 2007). Often, such transcripts are enriched with schematic pictures or—depending on participants' permissions—photographs. However, even the most detailed transcript constitutes a work in progress and may be adjusted later on. As you proceed with your analysis you might hear things differently, or maybe your focus changes and requires you to add more details.

Translating data

If you are analyzing discourse produced in a foreign language, you might be required to enclose translations in your research report. In the case of written discourse, placing a translation directly beneath the original is often sufficient. When representing translated talk, on the other hand, you have several options: (1) you can provide a translation below the original transcript, (2) include the translation line by line into the transcript or (3) choose a parallel format where original and translation are side-by-side (see Nikander, 2008, pp. 227–229).

How to Conduct Discourse Analysis

While transcripts are essential, analysis of spoken discourse always includes the original recordings. When transcribing, you have to make certain choices since details might be difficult to mark down or vocal features can be heard differently, and so on. A transcript is a selective interpretation. This is why discourse analysts usually rely on a combination of recording *and* transcripts.

Analyzing discourse is more of a back-and-forth procedure than a linear process. Indeed, no clear-cut, step-by-step guidelines exist for conducting any kind of DA study, but you are expected to make your own methodological choices in accordance with your data, research interests, and theoretical grounds. DA work has been compared, in fact, to a skill requiring experience, a certain mentality, and creativity (Antaki, 2008; Keller, 2013; Potter, 2004, 2016; Rapley, 2007). Of course, as we will see below, discourse studies are not free of methodological commitments and you have to be clear about your decisions and remember to justify them well. However, approaching your data with as little provision as possible can facilitate the discovery of phenomena a rule-governed analysis might overlook. To get a better picture of how to conduct a DA, Rapley (2007) recommends reading other people's work. Academic journals in the field, such as *Discourse Studies, Text & Talk,* and *Discourse & Society,* are useful for studying others' methodological approaches. Your department may organize regular data sessions where you can improve your skills by analyzing data together with experts.

> "There are no hard-and-fast answers or solutions to any of the debates and dilemmas you will face when undertaking work on conversations and texts. It often depends on what you read, how you read it, and what just makes sense to you in the context of your own work. Above all, I would suggest going and reading examples of as many people's empirical work as you have time for, to get a sense about the practical decisions they made and the practical solutions they employed." (Rapley, 2007, p. 109)

As DA generally aims at discovering patterns and recurrent structures of meaning-making, one way to begin tackling your data is by identifying themes and by organizing them into a collection of different categories. This kind of coding is done through the careful examination and re-examination of your material (for more on coding practices see Keller, 2013; Rapley, 2007): once you come across something interesting, mark it down and label it using a descriptive phrase or a keyword. See if you can find similar instances in the data, and refine your initial tag or classification with what the occurrences have in common. You might be required to add sub-categories or expand existing codes in order to catch nuances and distinguish certain formats from others. During this process you may come across a number of interesting phenomena. However, we advise limiting your focus and keeping track of how single categories and sub-categories relate to each other and to the main theme of your study. While coding can help you create and manage an archive, coding is not always a necessary or sufficient step. As Potter (2004) puts it: "Part of DA may involve coding a set of materials, but this is an analytic preliminary used to make the quantity of materials more manageable rather than a procedure that performs the analysis itself" (p. 216).

Analyzing, then, means to explore and explain what is going on in your data. While coding involves finding and categorizing interesting passages, analysis is more about figuring out what exactly makes these passages interesting. Remember that in the process of conducting a discourse analytic study you cannot necessarily follow a straight path. Data collection, transcribing, coding, and analysis often overlap.

Whatever your approach—conversation analysis, narrative analysis, critical discourse analysis, discursive psychology—try to keep the four key features of DA in mind (see Antaki, 2008). While DA provides no fixed

instructions on how to analyze your data, the key features reveal underlying principles and can assist you in navigating your analysis. First, avoid repeating or paraphrasing what participants say; rather, try to make sense of people's activities and provide a profound and clear account of what you think they are doing. This is based on the assumption that what people say or write constitutes versions of reality which cannot be approached as simple facts or truths. You should always demonstrate how you arrived at a certain understanding. According to Rapley (2007), "your job is to convince others that your claims, your interpretations, are both credible and plausible, that you are not just making this up from thin air or this is just your vague hunch, but that your argument is based on the materials from your archive" (pp. 128–129). This goes hand in hand with an appreciation and discussion of previous work on the subject. DA's views on social reality have further analytical consequences. For example, from a discourse analytic perspective, status, gender, or cultural membership are only achieved through discourse. Rather than referring to such attributes as an explanation for certain behavior or using them as a starting point for your research, the idea is to explore how, for what purposes, and under which circumstances they are brought up in discourse. Finally, treat single contributions in relation to their placement by considering what preceded a certain expression or a word and what it leads to next.

Summary

This chapter provided you with some basic insights into the broad area of discourse analysis. As is often the case with such introductions, this text constitutes more of a starting point—but one that hopefully inspires you to learn more about this field and maybe even a certain approach in particular. In general terms, DA allows us to recognize the ways people (together) create meaning and social facts. Although analyzing discourse is a skill requiring learning by doing, the chapter should help guide you in the process.

Key Steps & Questions to Consider

1. DA describes a field of study, encompassing a number of different approaches.
2. Conducting a discourse analytic study often includes recurrent and overlapping steps.
3. Usually discourse analytic work means studying naturally occurring data.
4. In the case of spoken discourse, data collection involves the recording of suitable situations, which means setting up cameras and audio recorders beforehand.
5. Recording and using naturally occurring data involve specific demands with regard to research ethics.
6. Recorded data should be roughly transcribed to allow for a better overview. The notation of single passages that become relevant for analysis can be refined later on using an established transcription system.
7. The data may be organized by categorizing interesting phenomena. However, while coding sometimes includes analytical elements, analysis does not stop there.
8. Analyzing means exploring and explaining what is going on in the data.
9. Analysis generally aims at discovering patterns and structures of meaning-making. The main focus is on how people constitute social facts through discursive practices.
10. A multimodal approach to discourse does not favor language over other modes of communication.
11. The research report should clearly demonstrate how presented findings have evolved and follow the "'validity through transparency and access' principle" (Nikander, 2008, p. 227).

Activities

1. Find a TV interview online. Transcribe a short passage of talk (approximately one page). Prepare a rough transcript. Then go into details by marking pauses, overlaps, stresses, and so on. For an example, see Puchta and Potter (1999, especially p. 333).
2. Practice coding. Using the TV interview you found online, label interesting instances and organize them into categories and sub-categories. Focus on the different ways the interviewer addresses the interviewee.
3. Pick one instance from your TV interview for closer inspection. What is happening? How can this be explained? Try to trace and reconstruct what the interviewer is doing by addressing their interview partner in a certain way.

Discussion Questions

1. What kinds of discourse do you come across on a daily basis? What makes them interesting for closer inspection? How could they be approached analytically?
2. Under which circumstances could discursive data that stem from experiments in laboratory settings be considered naturally occurring? What questions could be directed at such materials from a DA perspective?
3. If you are working in groups or pairs, agree on a talk for Activity 1 and decide which part of that talk should be transcribed. Transcribe the passage on your own and then compare your notations with your colleagues. In which ways do they match? What differences do you find? What implications have these similarities and differences for possible analysis?

Key Terms

Bias
Coding
Conversation Analysis
Critical Discourse Analysis
Discourse Analysis (DA)
Informed Consent
Interpretation
Labov's Observer's Paradox
Macro-Level
Meaning-Making
Micro-Level
Modes
Multimodality
Narrative Analysis
Naturally Occurring Data
Social Constructionism
Transcribe
Transcription Conventions
Transcripts
Turn-Taking

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Undergraduate Discourse Analysis Paper

The Gradual Production of a Humorous Event in a Finnish Talk Show (translated from Finnish)

Saara Vilokkinen

```
1 Host kenen idea oli laittaa laura räty (0.5) ministeriksi.
    whose idea was it to select laura räty (0.5) as secretary.
2 Guest .hh aika harvat asiat on niinku kenenkään yksittäisten
    .hh quite few things are the ideas of
3      ihm[isten ideoita     ]
       a [single person alone   ]
4 Host      [mut se oli sun idea,   ]
       [but it was your idea,]
5        (0.5)
6 Guest mut mä olin siinä mukana
       but I was involved in this
7      kun sitä [kehiteltiin (sitä)   ]
       when this [was developed (this)]
8 Host      [se oli sun idea¿   ]
         [it was your idea¿   ]
9       (.)
10 Guest .h mä olin
       .h I was
11      mu:[kana siinä kun sitä kehiteltiin sitä ideaa?     ]
       in [vo:lved in this when this was developed this idea?]
12 Host    [.h ((naurahtaa))          <SE] oli
       [.h ((laughs))          <IT] was
13      [SUN IDEA>        [YOUR IDEA> 14 Guest [mä olin MUKANA SIINÄ?
       [I was INVOLVED IN THIS?
15      (.)
16 Host mä satun tietään et se oli sun idea,
       I happen to know that it was your idea,
17      ((naurahtaa)) oliko?
       ((laughs)) was it?
```

(for transcription conventions see Sidnell, 2010)

This passage is taken from a Finnish talk show ("Hjallis") that was broadcasted on MTV3, a Finnish TV-channel, on the 10th of October 2014. The guest of this show was Taru Tujunen, the former party secretary of a large Finnish party. I chose this data, because I remembered seeing the show on television and noticing that the talk was intense and possibly interesting to analyze from a conversation analytic perspective. Of course I attempted to watch the conversation again without presuming too much beforehand. However, this 15 second-long stretch of talk which takes place two minutes after the beginning drew my attention and I decided to focus my analysis on this particular passage. In principle, the extract could have also been longer for the analysis of this case, but I believe that within these 15 seconds one can already identify a certain phenomenon using conversation analysis.

It is sometimes important to include (preceding) talk if it becomes relevant in the course of a certain passage. However, in this case, Saara's decision to keep the extract at 15 seconds is desirable. The transcript shows no more insight is needed to analyze this segment, and the reader is able to follow it without difficulty.

In the beginning of the passage Hjallis, the host, asks his guest whose idea it was to select Laura Räty as secretary. Hjallis poses his question quite calmly with falling intonation, but as can be seen in the transcript he makes a clear pause of half a second after mentioning the name of Laura Räty (line 1). Also his guest, Tujunen, begins to speak with a rather calm and continuing intonation, responding that "*.hh quite few things*

are the ideas of a single person alone" (lines 2–3), until Hjallis cuts in at the end of her reply. Hjallis clearly takes on the role of the interviewer by dramatizing and by answering in overlap in his guest's stead: "*but it was your idea*," (line 4). After a very short pause, Tujunen answers emphatically: "*I was involved in this when this was developed (this)*" (lines 6–7), clearly stressing the word 'involved', but again Hjallis cuts in, using more emphasis himself: "it *was your idea¿*" (line 8). Until this point Hjallis has been physically oriented towards his guest, and he reinforced his interruptions through intensive eye contact with Tujunen.

After a micro pause, Tujunen repeats her answer with yet more weight: "*.h I was invo:lved in this when this was developed this idea?*" (lines 10–11). Again Hjallis interferes towards the end of her sentence, now almost shouting with very strong emphasis: "<*IT was YOUR IDEA*>" (lines 12–13). At the same time Hjallis shakes his finger at her thereby still intensifying his exclamation. Partly in overlap with this, now Tujunen herself shouts back: "*I was INVOLVED IN THIS?*" (line 14) and in turn shakes her finger at Hjallis. At lines 16–17 Hjallis continues a little quieter, but still with clear accentuation: "*I happen to know that it was your idea, ((laughs)) was it?*".

Saara reproduces the course of this talk with great care, and she pays attention to nonverbal activities. It is easy to follow how the passage slowly builds up.

From my point of view, this conversation is quite a typical example of talk shows that strive to entertain, such as "Hjallis". Hjallis takes a rather authoritative interviewer role by interrupting his interviewee – in this case Tujunen – with his assumptions, which he readily presents as truths. However, he nevertheless ends this passage by saying "*I happen to know that it was your idea, ((laughs)) was it?*". In the beginning he does not hesitate to make claims of truth while his interviewee is still speaking, and he even says that he knows the story. Yet, in the end, by asking "was it?" (line 17), he still indicates that his assumptions are not necessarily reliable. I think that this is a clear device for dramatizing and making the talk more exciting and thus more entertaining for the audience, by grilling the interviewee, so to speak. This might even be exactly "Hjallis'" trademark in general.

Tujunen starts out answering Hallis' question calmly and professionally, with level intonation, but she clearly reacts to his accentuated interruptions by intensifying her own intonation and stressing words she wants to highlight. Tujunen also accelerates her speech rate and increases the volume of her talk in reaction to Hjallis' progressively emphasized and louder interruptions. However, it is noteworthy that between these gradually pronounced turns there is also continuous laughter, and as they produce those turns both parties are smiling at each other increasingly. The debate in this situation is clearly not conducted in a hostile spirit, but takes a rather humorous turn. Clearly, the parties react to one another's turns by precisely responding themselves still a bit louder and with still some more emphasis after the other has done the same, as well as by increasing their laughter and smiles. It is also notable how Hjallis reinforces his most prominent turn by shaking his finger and how immediately after this Tujunen does the same in her own turn. The parties therefore clearly build on each other's activities in this conversation, together producing this humorous passage.

In her conclusions, Saara reflects on her observations and makes some important points here. For example, her analysis of this passage demonstrates how the participants interactively achieve humor and how both speakers orient to the presence of an audience (i.e., using resources of entertaining).

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15 Surveys

Chapter Outline

What Will I Learn About Surveys?

Most of us have taken a survey of some kind. Many of us, in fact, have more than likely taken a customer satisfaction survey. These surveys are designed to measure our level of satisfaction with an organization and its services. You may have been asked how satisfied you were with service at a fast food restaurant, a hotel, or with a recent purchase. These surveys used to be mailed to people's homes (some still are in fact). Most surveys are now offered online. A second kind of survey you may have taken is a questionnaire in one of your classes which asked you different questions about communicative, sociological, or psychological processes and behaviors. Students regularly fill out these kinds of surveys on university campuses.

Surveys have a long history in social scientific research, government, and economics. William the Conqueror had a census collected in 1085–1086, which was called the *Domesday Book* (Hyman, 1991; Miller, 1983; Neuman, 2011). After this census, the gathering of population data became common government practice, which continues today. Researchers also began to collect survey data on how people lived: Henry Mayhew chronicled urban life in London from 1851 to 1864, and W. E. B. Du Bois (1899) detailed urban conditions among African Americans in his text, *The Philadelphia Negro*. After James Cattell (1890) proposed the idea of empirically measuring mental and emotional processes, surveys became a regular part of social scientific research. In Chapter 15 you will learn all about surveys.

Definition and Use of Surveys

A survey is a social scientific research instrument in which respondents are asked questions about their own or other individuals' attitudes, behaviors, beliefs, perceptions, and/or values. While many of these categories overlap, major differences exist depending on how a researcher approaches a study. The following box contains some basic examples of things you can focus on in a survey.

Examples of What You Can Ask About in a Survey

1. Attitudes, Beliefs, and Opinions - What type of job is the President doing? Do you believe that television news is fair and balanced?
2. Perceptions - To what extent does the media present things as they are in reality?
3. Values - To what extent do you care for your family, even when you have to sacrifice what you want?
4. Behaviors - How many hours a week do you watch television?
5. Numerous other aspects of human life can be explored using surveys, such as: demographic characteristics (sex, age, and religious identification), expectations (do you plan on going to college in the future?), and knowledge (who is the secretary of the U.S. Treasury?).

While surveys are useful for data collection, they are not always the most appropriate method. Surveys are most appropriate for use in the following situations: when you need new data and when people (not animals, micro-organisms, or texts) are best at providing the data about what you are studying.

First, use a survey to collect new data on some phenomenon. For example, you cannot use a survey if you are interested in studying the social identities of British and American soldiers during the American Revolutionary War. You are unable to collect surveys since the soldiers are long dead. Instead, you will need to look through historical documents and read the accounts of soldiers, look through newspaper articles, and the like. The fact that you can't access the population is important. If you can't access the population, you can't collect the data. So, ask yourself the following two key questions: 1) are you able to collect the data and 2) do you need to collect the data using a survey?

A second reason to use a survey is because people are best at providing the data about what you are studying. One fundamental purpose of a survey is to measure an individual's own perceptions of their attitudes, behaviors, beliefs, perceptions, and/or values. If you are interested in studying public opinion about a presidential decision, a survey may be appropriate. You could measure individuals' personal opinions on the decision and about the President. Since taking office in 2017, numerous polls have evaluated the decisions made by U.S. President Donald Trump. Such public opinion polls are a standard survey form.

Another standard survey form is a communication or psychological self-report, like the Personal Report of Communication Apprehension (McCroskey, 1982). Using this survey, a researcher can measure an individual's level of communication apprehension. When the respondent fills out the survey, they report their personal perception of how much communication apprehension they have. If you think back to Chapter 5, you might recall that some researchers criticize self-reports because respondents tend to over- or under-estimate their attitudes, behaviors, beliefs, perceptions, and/or values (Fisher, 1993; Ganster, Hennessey, & Luthans, 1983; Oetzel, 1998). To solve for an over- or under-estimation, researchers encourage the use of other-report surveys (Podsakoff & Organ, 1986; Spitzberg & Hecht, 1984). We will talk more about self- and other-report surveys later in this chapter. For now, just remember that self-report surveys give the subjects a chance to answer questions about themselves, which can provide in-depth information about phenomena.

While video cameras and clerks in stores can tell a lot about how "satisfied" we may be about our shopping experiences at different shopping locales, we as shoppers are probably the most qualified to judge our overall satisfaction. This is why we are sometimes asked to fill out customer service questionnaires, or customer service surveys. The same can be said about opinion polls during elections. News networks, and companies like Gallup, could measure the popularity of a certain candidate by counting the number of people at various rallies and such, but they instead rely on surveys or polls to evaluate public opinion. Granted, these polls are not perfect, which we will talk more about.

How to Create a Survey

As discussed in Chapter 5 on Data, Chapter 6 on Evaluating Research, and Chapter 7 on Hypotheses and Research Questions, one of the purposes of research from a social scientific approach is to measure multiple

variables and test hypotheses and research questions. This is facilitated using well-designed surveys. Creating a survey for distribution to participants involves three macro-steps. The steps are detailed in the following box.

Steps in Survey Creation

Step 1. Theoretical

a. Choose one or more theoretical framework that will guide the study.
b. From your theoretical framework(s), develop hypotheses or research questions that the survey will help you test.

Step 2. Structural

a. Create new survey questions and response categories or use pre-existing survey instruments.
b. Choose a type of survey (mail, online, paper, etc.).
c. Be sure that the survey is clearly laid out with easy-to-follow instructions.

Step 3. Logistical

a. Decide on how you want to collect and store the data.
b. Pilot test the survey instrument.

Choose a Theoretical Framework and Develop Hypotheses/Research Questions

The first step in creating a survey is to choose your theoretical framework(s) that will guide the study. You must ask yourself, what you are studying. What phenomena are you interested in testing and/or exploring with your survey? You will have a hard time coming up with any kind of survey instrument if you cannot answer these questions. Second, you should develop research question(s) and a hypothesis or hypotheses for your proposed study. Survey research is deductive research. This means that you begin with a theory of interest and then propose hypotheses and/or research questions. Your hypotheses and/or research questions are statements of how variables are related to one another. Your survey is designed to measure the variables and thus test the hypotheses and/or research questions which help you arrive at conclusions about the theory.

Let's say that we are interested in testing whether Twitter users get the same gratifications they seek from using Twitter. An extensive body of literature exists on gratifications sought and obtained (boyd & Ellison, 2007; Chen, 2011; Herzog, 1940; Katz, Blumler, & Gurevitch, 1974; McQuail, 2005; Ruggiero, 2000). Research has shown, for example, that users of sites such as Facebook seek out friends and believe they get friends from these sites (Raacke & Bonds-Raacke, 2008). Hypotheses or research questions could be derived from previously written research to better understand Twitter and the gratifications sought and obtained. Once you have generated hypotheses and/or research questions, the next step is to either create an entirely new survey, or to use a pre-existing survey instrument.

Once you have decided on the focus of your study, you need to consider the following issues: 1) whether you want to create a new survey or use a pre-existing one, 2) the type of survey you want to use, and 3) how to make sure your survey is easy to use. A big decision you need to make, and one that Stephen and Dan have grappled with in the past, is whether to use preexisting scales or if you should create an entirely new scale to measure a particular phenomenon. There are pros and cons involved in both. New researchers may find using a pre-existing measure helpful because they do not have to generate a lot of questions. Creating a new instrument to measure a phenomenon involves quite a bit of statistics, since you must demonstrate that the instrument is both statistically valid and reliable. If you want to create your own survey, you may need to conduct multiple pilot tests and run the questions through numerous statistical tests (exploratory and confirmatory factor analyses, for example). Such analyses are well beyond the scope of this text. Therefore, we recommend that you use preexisting scales whenever

possible.[1] We recommend the use pre-existing scales with caution. Stephen and Dan have seen students decide to use random measures for their research. Your theoretical framework(s) must guide your measure selection. Choose a measure or measures that help you address your hypotheses and/or research questions. For example, imagine collecting 100 surveys on communication apprehension when the real purpose of your study is to explore jealousy.

Survey Questions and Response Categories

For argument's sake, however, let's say you want to create your own survey instrument or you have an assignment requiring you to generate survey questions. Consider the following when you design your survey: What kinds of questions and levels of questions should you include in a survey? How do you make sure the questions you include are valid and reliable? How can you avoid confusing questions? To what extent should you consider the perspective of the participants when writing the questions? Are you leaving anything out of the survey? These are just a few of the many issues you need to consider when designing and/or choosing your survey questions. Multiple checklists and various suggestions are available to help you create surveys (Babbie, 1990; Hocking, Stacks, & McDermott, 2003; Neuman, 2011; Wrench, Thomas-Maddox, Richmond, & McCroskey, 2008). The following box contains some recommendations to help you create well-constructed surveys.

Elements of Well-Constructed Survey Questions

1. Try to use multiple levels of questions.
2. Be cautious of the language you use in the survey.
3. Avoid double-barreled questions.
4. Avoid leading questions.
5. Avoid double negatives.
6. Avoid overlapping or unbalanced response categories in questions.
7. Be sure the survey is well organized.

Multiple Levels of Questions

First, most surveys will include nominal, ordinal, and interval-level questions (think back to Chapter 5 on Data). Some surveys will include ratio-level, and open-ended questions. Examples of nominal-level questions include demographic questions (e.g., sex, political affiliation, and religion). You should include such questions when they are important to your topic of study. If religion is not important to your subject, then you may not need to ask about it.

Ordinal-level questions are also often used in surveys. Such questions could, for example, ask people about their income-level or educational-level. If you decide to include these types of questions (and maybe nominal-level ones as well), you need to plan for the kinds of statistical tests you will use to analyze the data. We will talk more about data analysis shortly.

Interval-level questions are the most common type you will find on surveys. Interval-level variables are typically Likert and semantic differential or bipolar adjective-type questions. A great deal of social scientific research relies on interval-level questions to measure human behavior. Look back to the Organizational Dissent Scale in Chapter 5 for an example of Likert-type questions that are typical for a communication survey.

Another kind of question you can include in your survey is an open-ended question. While most survey questions limit a respondent's choices (answers), open-ended questions allow respondents to answer any way they want. Here's an example of an open-ended question: "Describe the feelings you have about President Donald Trump." The question allows respondents to open up about their feelings with a variety of statements, words, drawings, or whatever they want. Open-ended questions can be helpful for researchers since they provide information they do not expect to get with Likert-type questions. You can analyze open-ended questions statistically using methods such as content analysis (which we talked about in Chapters 12 and 13). A combination of various question types can make any survey "better." Different levels of measurement (nominal, ordinal, interval, ratio, and open-ended) allow researchers to analyze data using varied methods and approach a phenomenon from a variety of angles.

In a recent survey, Stephen and his research team included a variety of questions to investigate Finnish conflict styles and individualism and collectivism. Their survey included various demographic questions, such as: "What is your marital status?" and the response options included Single, Married, Divorced, Widowed, or Partnered. They included ordinal-level questions, like: "How long have you worked for your current employer, if you are employed?" and provided the response options: less than a year, 1–2 years, 3–5 years, 6–10 years, 11–15 years, 16–20 years, more than 20 years. The survey included numerous interval-level (Likert-type) questions. An example of a Likert-type question is: "Based on this 5-point scale: (1 = strongly agree to 5 = strongly disagree), people in other cultures have a better lifestyle than we do in my culture." An example of an open-ended question is: "What is your religion? (Please write in your religion. If you do not have one, please write that down)."

Survey Language

The language choices we make when writing survey questions can have a tremendous effect on how participants understand and answer questions. When writing survey questions or instructions, try to avoid jargon, slang, and abbreviations. Jargon is language specific to a particular group, profession, or trade. For example, communication, like all disciplines, uses a lot of jargon. Let's say you are interested in how social media use differs between the U.S. and Nicaragua (Spencer, Croucher, & Hoelscher, 2012). You might want to explore teledensity, or the number of media (Internet) connections per person, and its effects on media use. If you ask respondents about teledensity, many will not understand the question. What is teledensity? may be the first question people ask you, because this is not a common word for people to use in everyday conversation.

You should also avoid slang, or nonstandard vocabulary made up of informal words. Unlike jargon, slang does not have to be associated with a particular group. Slang varies based on an individual's language. Seemingly simple words have taken on new meanings with the explosion of the Internet. "Friend" and "unfriend" take on entirely new meanings with Facebook users. When Stephen first moved to Finland in 2011, he found that many of the English words he used had different meanings to English-speaking Finns. He was in a meeting and said he went somewhere that was the "armpit" of a town. People did not understand him, because it is not common outside of the U.S., Canada, and maybe the UK to call a place an "armpit." The word "armpit" is slang for an undesirable place. So, be cautious of using slang in surveys, as it can confuse respondents.

Abbreviations can cause problems with survey collection. If we were to create a survey asking students their thoughts on the viability of a new committee in the NCA to measure the effectiveness of offering more G.I.F.T.S. sessions at the national conference, would they understand what we are talking about? The chances are slim. The NCA is the National Communication Association (the largest association for communication researchers, teachers, practitioners, and students). G.I.F.T.S. stands for Great Ideas for Teaching Speech. Every year, the national conference hosts sessions (meetings) where communication scholars share ideas they have for teaching speech and/or communication.

Double-Barreled Questions

A double-barreled question contains two or more questions. For example, if you are conducting a dining services survey of your campus cafeteria, you might ask: "Do you like the food and beverage options provided on campus?" Respondents may want to answer both yes *and* no to the question because they may like the food options but not the beverage options. For example, the school may be a "Pepsi campus" and a respondent a Coca-Cola fan. The question is not meant to confuse the respondents, yet it asks two separate things. A better way to ask about food and beverage options is to ask two separate questions: "Do you like the food options on campus?" and "Do you like the beverage options on campus?"

Leading Questions

A second kind of question you should avoid in a survey is a leading question. A leading question directs respondents toward one answer over another. Avoid questions such as: "You agree with the President's recent decision to … don't you?" This wording tells them that you assume that the President made a good decision and that the respondents should, too. When conducting a survey, you want respondents to believe that all of their responses are equally valid; leading questions do not convey a sense of respect for respondents' opinions.

Double Negatives

A third kind of question to avoid is the double negative. Basic grammar rules tell us that this is a poor sentence: "I have never played no musical instruments." In fact, grammatically and logically, the sentence means that one *has* played musical instruments. We should avoid double negatives in survey questions. An example of a double negative in a survey question is: "Do you agree politicians should not be required to have term limits?" The question is confusing. A good rule is to just keep the question simple: "Politicians should be required to have term limits (agree or disagree)".

Overlapping/Unbalanced Categories

When respondents answer questions on a survey, their options need to be mutually exclusive, exhaustive, and balanced. In order to have mutually exclusive categories, your response options cannot overlap. Take, for example, a question about television viewing: "How many hours a day do you watch television?" with the following response categories: 1–4, 4–8, 8–12, 12–16, 16–20, 20–24. The problem is that the categories overlap. Here's a better way to list the categories: 1–4, 5–9, 10–13, 14–17, 18–21, 22–24. Now, the hours do not overlap and are mutually exclusive.

Exhaustive categories provide everyone with a category to choose. Earlier, we showed you a nominal-level question: "What is your marital status?" and the resonse options of Single, Married, Divorced, Widowed, Partnered. Stephen's research team determined that the options were exhaustive. The team added "Partnered" to the survey since, in Finland, many individuals are legally and informally "Partnered." Everyone taking the survey should have had an option that suited them.

Balanced categories provide participants a balance of opinion options. A typical Likert-type question may have responses ranging from "strongly agree" to "strongly disagree." The continuum provides balanced categories. The two polar opposites provide a balance of opinions. If you provide only "strongly agree" and "agree" you are providing leading categories for your respondents. Semantic differentials often have adjective pairs such as honest/dishonest, cheap/expensive, kind/mean, etc.

Organization of the Survey

The organization of a survey is of key importance. The structure of a survey, particularly the order in which you put your questions, is often based on research preference. However, you should follow some norms. When including interval or ratio-level questions, there are a few things you should think about. First, try to put all of the questions with the same type of response (answer) together. For example, put all of the questions that range from *strongly agree* to *strongly disagree* together, and all of the questions that range from *very unsatisfied* to *very satisfied* together. Clustering these kinds of questions together will generally make it easier for your respondents to answer questions with less confusion.

Second, most surveys tend to keep together the questions that focus on the same context. Many surveys will focus on multiple issues and each issue might include more than one measure. You will commonly see all measures that focus on one issue clustered together (pages 1–2, for example), and then the measures that focus on another issue clustered together (pages 3–4, for example). This can help your participants remain in the same mindset while they answer questions on each separate issue.

Third, you need to consider where you place nominal-level questions. Should they be at the start or the end of the survey? This is really a personal preference of the researcher. We have both seen surveys with the demographic (nominal-level) questions at the end and at the beginning. The key is to keep the questions together, as you do not want to disrupt the rhythm of the respondents. Once respondents begin answering demographic or other nominal questions, it may seem odd to have more at a later stage. The same can be said about open-ended questions. Once respondents switch into an open-ended mindset, it can be difficult to get them back into a closed-ended mindset. Remember, the responses for open-ended questions can take up space on the survey. Thus, these kinds of questions are generally placed at the end of surveys.

Fourth, any sensitive questions should be placed at the end of the survey. Let's say you are doing a survey on jealousy and one of the variables you want to correlate is sexual promiscuity. You may want to start by asking about self-perceived jealousy using Likert-type items, then ask demographic questions, and finally ask about sexual activity and promiscuity. You do not want to ask about sexual activity and promiscuity first, because the questions

could embarrass, anger, or lead respondents to start answering in either socially desirable or dishonest ways.

Types of Surveys

We would like to describe two types of survey. Each type has advantages and disadvantages. The first kind is a paper-based survey. Paper-based surveys are just what they sound like—the survey is printed on paper and provided to participants. The survey is usually given to participants in one of four ways: face-to-face, take-home, in the mail, or over the telephone. With face-to-face surveys, the respondents fill out the survey with the researcher present. Many of you may have participated in research at your school where you take a paper survey for extra credit in a lab or classroom; this kind research is a paper-based, face-to-face survey. If you are allowed to take the paper-based survey home and turn it in later, then you have a take-home survey. Sometimes researchers will mail surveys to potential respondents. Mailing surveys to respondents can help broaden the reach of a study. Typically, the researcher will include a self-addressed, stamped, return envelope with the survey. The final delivery method for paper-based surveys is over the telephone. Researchers will call respondents and conduct surveys over the phone. Using this method, the researcher will ask the respondent the survey questions, and then record the answers on the survey.

Web-based surveys are becoming popular. Web-based surveys are presented and collected entirely online. As people increasingly use the Internet, it is no surprise that researchers have turned to the net as a way to collect data. Websites like Survey Monkey are an easy way to distribute surveys. Once the surveys are online, invitations can be sent to people to fill out the surveys. A researcher can then export the collected data from Survey Monkey (or similar programs, like Qualtrics) into a statistical software package and analyze the results. Figure 15.1 shows the advantages and disadvantages of paper and web-based surveys. Based on these advantages and disadvantages, you can choose whether paper or web-based surveys are the most appropriate for you.

Figure 15.1 Advantages and Disadvantages of Paper and Web-Based Surveys

Survey Issue	Face-to-Face	Take Home	Mail	Web-Based
Cost	Highest	High	Medium	Cheapest
Delivery Speed	High	Medium	Slowest	Fastest
Possible Length of Survey	Longest	Same	Same	Shortest
Response Rate	Highest	High	Lowest	Medium
Ability to Ask				
Probing Questions	Yes	No	No	No
Open-Ended Questions	Yes	Limited	Limited	Limited
Sensitive Questions	Limited	Limited	Yes	Yes
Ability to Use Visual Aids	Yes	Limited	Limited	Yes
Social Desirability Bias	Highest	High	Lowest	Medium
Interviewer Bias	Highest	High	None	None

Clear Instructions

Have you ever tried putting together a complex piece of furniture, had a hard time programming electronics, or been confused by a school assignment? Clear instructions are a plus in all facets of life. We should also remember Murphy's Law: if something can go wrong, it probably will. Easy-to-follow instructions are important in facilitating the smooth completion of a survey. Easy-to-follow instructions = more participants completing the survey.

Stephen has been asked many clarifying questions by participants taking his surveys. Here's an example of survey instructions and questions participants have asked: "Please indicate in the space provided the degree to which each statement applies to you by marking whether you (1) strongly agree, (2) agree, (3) are undecided, (4) disagree, or (5) strongly disagree with each statement. There are no right or wrong answers." Participants have asked: Do I use numbers, or should I use roman numerals? Can I use pen or pencil? If I write in an answer, can I erase it before I turn in the survey? The key is to pre-empt as many questions as possible and to make your survey easy to follow.

To prepare for such questions, Stephen and his team try to make sure that participants know how to answer each set of questions. The consent document given to participants contains the following statement: "Please be sure to follow all instructions as closely as possible. Also, you may use pencil or pen to complete this survey. You may also change your answers for any question, as long as you do so before you turn in the survey." Stephen's team is sure that more things still need to be added to the statement; those additions will come in time.

Logistical Concerns

Once the survey is written, you need to think about two logistical concerns. First, you need to think about how you are going to collect and store the data, and second, you need to think about pilot testing the survey. The decision about collecting and storing the data is likely guided by the type of survey you are using. If you are web-based, the survey data will be collected and stored online. If you are paper-based, you need to think about how you will collect and where you will store the surveys. We will talk more about collection in a moment. How long you must store survey data depends on your college or university, some IRBs and HSRBs require you to store data for 2–5 years.

Pilot testing is always a good idea. A pilot test allows you to check your survey instructions and questions with a representative sample population. Pilot testing is a way to test how well your survey will function among your real sample. We will not discuss here how many participants are needed for a pilot, since that is determined by how many questions you have. (A power analysis can help you determine this. Look online for power analyses if you are interested in this.) For now, just know that we strongly encourage you to pilot test any survey instrument.

How to Administer a Survey

The administration and data collection stage is when you are ready to go out into the field and collect your data. This can be a very exciting process. We identify three key things you must consider: 1) who are the participants, 2) how are you collecting the data, and 3) is your survey a one-shot or a longitudinal design? Whenever you design a new survey or use a preexisting survey, a question that should guide you is: To what population do you intend to generalize? Once you have determined your intended population, you need to decide on your sample and how you will locate that sample (think back to Chapters 5–7). Wright (2012) was interested in emotional support and perceived stress among college students using Facebook. College students were the population for his study. His sample for the study was 283 university students recruited from communication courses at a Southwestern university in the United States.

For Wright (2012), collecting his data was relatively easy since his sample was easily accessible: university students. University students are easy to find and are generally used to filling out surveys. He more than likely had his participants either fill out the surveys online or had the students fill out paper-based surveys (he did not state in the article how the surveys were completed). If your sample is harder to reach, finding the sample population and collecting the survey may not be easy. In Croucher et al. (2012), the researchers' population was average citizens in India (n = 657), Ireland (n = 311), Thailand (n = 232), and the U.S. (n = 592). The total sample (n = 1,792) was located via various social networks, religious organizations, and universities and colleges.

Wright's survey was what we call a one-shot survey, or a cross-sectional design. This means that he collected the surveys at one point in time. The results of his survey reveal what the respondents feel about the phenomena at the moment they completed the survey. While this tells us a lot about the respondents and their feelings, it does not tell us anything about how their feelings may change over time. If Wright (2012) or another researcher wanted to measure how perceptions, traits, or behaviors change over time, they would need to follow a longitudinal design. In this type of surveying, respondents are given the same questions over a period of time in order to track changes in perception, traits, or behaviors. If changes occur, researchers attribute those changes to some variable within the study. All in all, how you administer a survey depends largely on the population to which you are generalizing.

How to Analyze Survey Data

The data analysis stage follows survey administration. Analyzing survey data is a four-part process: 1) check the

surveys for errors, 2) enter the data, 3) double-check what you entered, and 4) analyze the data. The first thing you should do after you get your data collected is go through it and see if you have any errors. There are lots of kinds of errors. You may have returned paper-based surveys with lots of unanswered questions. What you do depends on the number of unanswered questions. For example: you have 100 survey questions and two unanswered questions. Statistical solutions are available to "fix" the survey. Talk with your instructor about how you can replace missing values with means, and the ethics of such a decision. Another issue you may encounter is a participant who answers every question with the same value. Sometimes you will get people who do not really care about your research and simply circle the same answers for every question. In these cases, you need to decide whether you keep or discard their survey data. Stephen often discards these surveys and puts a note in his final manuscript that "'X' many surveys were discarded because they were incomplete or improperly completed."

Second, you need to enter your data. Entering data can be time-consuming, especially if you use paper-based surveys. You need to type every answer into some kind of computer program. Web-based surveys can save a lot of time because you can export or import the data into a computer program for data analysis. Web-based programs like Survey Monkey allow you to distribute a survey and then import the data into Excel or SPSS (Statistical Package for Social Sciences), one of the most used statistics programs. Other statistical software programs include SAS, XLSTAT, R, or MATLAB. Check with your instructor about which statistical programs are available on your campus and which one the instructor prefers.

No matter what program you use to enter your data (particularly if you enter data by hand from paper-based surveys), you must make sure that you double-check the numbers. As you go through your surveys you are likely to make mistakes. Over time, you will enter a lot of data. In 2013, Stephen's research team hand-entered 1,200 surveys. Each survey included 115 questions for a total of 138,000 responses. The team was bound to enter a few of wrong numbers (e.g., a 3 instead of a 2 for a question, a 4 instead of a 5). Go through and doublecheck your data! Now, before you get scared and think that you have to check everything, a good rule is to double-check 20% of the data. If you find you make few errors in 20%, then the rest of your data should be acceptable. If you find the 20% you check is laced with errors, then check everything.

Finally, you need to analyze the data. Chapter 16 on Descriptive Statistics and Chapter 17 on Inferential Statistics outline ways in which you can analyze the quantitative survey questions. Chapters 12 and 13 on Content Analysis offer ways you can analyze open-ended survey questions. The type of analysis you use depends on the type of questions and variables you have on the survey.

Advantages and Disadvantages of Surveys

Survey research has numerous advantages and some limitations. The seven main advantages to survey research are: 1) cost, 2) speed, 3) quantity of participants, 4) ability to distribute in a variety of places and methods, 5) ability to ask a lot of standardized questions, 6) standardization of questions can lead to more reliable results, and 7) surveys can lead to more generalizable results. Surveys provide researchers with a relatively cheap and fast way to gather responses from a lot of participants in a variety of places using a lot of means (Neuman, 2011). With surveys, unlike other methods, researchers are able to ask standardized questions. Standardized questions are the same for each participant, without deviation. Asking such questions provides reliable results, as a researcher can argue that each participant was asked the *exact* same questions. While many qualitative methods may have strict interview or focus-groups scripts, deviations from those scripts can occur, which makes it impossible to state that *all* participants are asked the exact same questions. Standardization is one of the reasons surveys lead to generalizable statistical findings.

Survey research has four main limitations: 1) surveys do not focus on context, 2) a survey is an inflexible instrument, 3) surveys generally need a large number of participants to be reliable, and 4) self-report surveys may trigger a social desirability bias. The first disadvantage of survey research is that surveys do not focus on context. Researchers who use surveys generally are not researching context. By nature, a method of research emphasizing standardization is not going to also focus on context. Thus, contextual cues and issues of a subjective nature will be lost. Second, a survey is an inflexible instrument or document. Part of the standardization aspect of surveys is that, aside from open-ended questions, surveys do not leave room for free expression. Participants are asked to circle or mark how they feel about various things and/or issues. There is *very* little room for the open expression of feelings, aside from the numbers provided on most surveys. Third, surveys, unlike qualitative research, need a large number of participants to be statistically reliable. This requirement can be difficult for many researchers,

particularly those taking a class like yours where you have limited time and resources. Fourth, some participants may answer questions in ways to make themselves look better; this is considered the social desirability effect (Fisher, 1993). If a researcher is interested in how often people express jealousy, it can be difficult to get honest answers from some participants because jealousy is perceived as a negative behavior. People do not want to be seen negatively, so they are more likely to not answer questions honestly and instead portray themselves positively. Ultimately, the researcher must weigh the advantages and disadvantages of surveys, along with their needs, when determining whether surveys are the right method for them.

Summary

This chapter was a how-to guide to surveys. Generally, surveys are conducted by social scientific researchers, but can also be conducted by interpretive and critical/cultural researchers depending on the focus of the survey. Hopefully, after reading the chapter, and the accompanying student paper, you feel comfortable enough to go out there and conduct your own survey. Next is Chapter 16 with a how-to guide on descriptive statistics.

Key Steps & Questions to Consider

1. A survey is a social scientific research method in which respondents are asked questions about their own or other individuals' attitudes, behaviors, beliefs, perceptions, and/or values.
2. Surveys have a storied history. The first "surveys" date back to the 11th century.
3. Two reasons to use surveys are because you want or need to collect new data, and because the people you are surveying are best at answering the questions you are asking.
4. Be sure that your survey is based on some theoretical framework.
5. Survey research is deductive research.
6. Avoid jargon and slang in survey questions.
7. Avoid double-barreled and leading questions on surveys, as well as double negatives.
8. Try to have mutually exclusive, exhaustive, and balanced response categories for survey answer options.
9. Try your best to have an organized survey. If the survey is not easy to follow, people will get confused and not do the survey, or do it incorrectly. The same is true for easy-to-understand instructions. Make the instructions as easy to understand as possible!
10. There are two main kinds of surveys: paper- or web-based. Paper-based surveys are on paper and given to participants. The survey is given to participants in one of four ways: face-to-face, take-home, in the mail, or over the telephone. Web-based surveys are presented and collected entirely online.
11. When you administer the survey, consider two things: 1) who are the participants, and 2) how are you collecting the data?
12. Analyzing survey data has four parts: 1) check the surveys for errors, 2) enter the data, 3) double-check what you entered, and 4) analyze the data.
13. Seven advantages to survey research: 1) cost, 2) speed, 3) quantity of participants, 4) ability to distribute in a variety of places and methods, 5) ability to ask a lot of standardized questions, 6) standardization of questions can lead to more reliable results, and 7) surveys can lead to more generalizable results.
14. Four limitations to survey research: 1) surveys do not focus on context, 2) a survey is an inflexible instrument, 3) surveys generally need a large number of participants to be reliable, and 4) there is a possible social desirability bias with self-report surveys.

Activities

1. Team Task 1: Find the Flaws. Your instructor will divide the class into teams and assign an online survey to each team. The *Washington Post* has a site of surveys (http://www.washingtonpost.com/politics/polling) useful for the task. Each team is tasked with finding as many flaws as possible in their assigned survey. The flaws must meet the standards established in this chapter.
2. Team Task 2: Build a Survey. (Each team will need access to a computer.) Each team will develop a brief survey (20–25 questions) on a communication research question of their choice. The questions will be in a

variety of formats (e.g., Likert scale, yes/no, open-ended). Each team will be assigned a different online survey instrument (e.g., SurveyMonkey, KwikSurveys, Zoomerang, ESurveysPro, SurveyPlanet) and then build their survey. Teams will keep detailed notes on satisfaction and frustration levels in using the site to create their survey. Teams will share both their completed surveys and their detailed survey-construction notes.

Discussion Questions

1. Think back on your personal experience with starting a survey, but not completing the task. What about the survey made you quit? The length of the survey? The type of questions asked on the survey? The format of the survey? Share and compare your experience with others. Use the information to help guide the construction of your own research surveys!
2. Think about your own communication research interests. Will a survey be an effective method for collecting data to answer your research questions? What limitations might you face? Share your thoughts with your classmates. Did they think of similar or different limitations? Would those limitations also affect your study?

Key Terms

Balanced Categories
Cross-Sectional Design
Deductive Research
Double-Barreled Question
Exhaustive Categories
Jargon
Leading Question
Longitudinal Design
Mutually Exclusive Categories
Paper-Based Survey
Pilot Testing
Slang
Survey
Web-Based Survey

Note

1 Instructors will sometimes encourage students to create their own scales and use them for assignments. Such assignments are perfectly acceptable as these assignments push students to develop questions and explore phenomena. However, such measures are not statistically valid and/or reliable unless rigorously tested. For more information on statistical tests like factor analyses and on how to statistically test the validity and reliability of surveys, see: Agresti & Finlay (2009); Field (2009); Levine, Bresnahan, Park, Knight Lapinski, Lee, & Lee (2003); Pedhazur (1997); Podsakoff & Organ (1986).

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Undergraduate Survey Paper

Social and Gender Theory in the Cinema

Michael J. Caiola

For my paper, I decided to study the relationship between social activities and gender roles. I found little research on this topic and thought it would be interesting to dwell more into this topic. This topic is vast so I decided to boil the question into one concise problem.

Do "female" students have a better and more interactive social life?

The opening to the paper may create a bit of confusion for the reader. First, the title mentions cinema, yet the introduction talks about social activities, not cinema. Second, the title and introduction refer to gender, yet the research question uses the term female. Female identifies a person's sex, not one's gender. Ask your instructor to discuss the differences between sex and gender. The two terms are routinely conflated in survey research. Finally, a reader may be confused about why female is in quotation marks in the research question. Stephen and Dan are not really sure why the student chose to place the word in quotation marks. Remember, your goal is clarity for your readers.

Method

I used the survey method to collect data for this project. I decided to collect from just students in college as they seemed the most likely to be in social situations. With the vast amount of people at college and the college lifestyle, social interactions are plentiful. This limited my distribution to a non-random sample. I also did not want just my friends and people I associate with to give me my data so I decided to make an online survey.

The student clearly identifies the sample population as non-random, but could provide more clarity by discussing if the study is going to include all college students, or if the study is limited to a specific group of college students (e.g., traditional, non-traditional, first-year, seniors). The student could also identify which online survey website he used. Not all online survey websites are created equal (as you hopefully discovered from the Team Task 2: Build a Survey activity).

Using this online survey and Facebook, I was able to limit my pool to just students at my college (on the college Facebook network). Using this network, I began to distribute this online survey to students and get the responses organized in a spreadsheet form. In addition, the online form was anonymous and there was no way to obtain any information on the identity of the participant. This allowed the participant to keep his/her identity safe while answering the questions truthfully. This fact is important, as I did not want male students to embellish how masculine they are or for females to embellish how feminine they are.

The survey itself consisted of nine questions. Four questions were about movie choices, four were about social interactions, and one question asked what gender the participant associates. The gender question allows us to group the data into two sections: male and female. The movie questions rank the preference of the movie genres thriller and chick-flick on a Likert 10-point scale. First, we asked the participant to rank preferences of thrillers, then preference of chick-flicks and then which one was enjoyed the most. In addition, I asked an interval question to see how many movies the participant saw in the last year. I figured a low score on this question might not make them acceptable for this survey. We then asked four ratio questions about the participants' social life. The first asked the participant to estimate how many friends were at the college. The next two asked how many friends the participant normally talks to each week and how many did he actually talk to the previous week. Then we asked one more question, how many friends the participant talked to earlier today. This last questions, allowed us to decide if the data we were getting was accurate. If it was too large of a number, we felt the data was corrupt and omitted it from our research.

Any confusion between wording in the title and the introduction starts to clear up as more details are provided about the organization of the survey. A paper title and introduction should, however, provide a reader with a strong understanding of the content of the paper. How could the student have rewritten the title and introduction to avoid any confusion?

The student repeats the sex/gender conflation. A gender question will not necessarily provide sufficient data for sorting into male and female.

The student does an excellent job of identifying the justification for the different types of questions (Likert, interval, ratio). Concluding with a check for data corruption is a strong choice.

Theory

The theory I studied was actually a combination of two theories. The first theory was social theory. Social theory is a large and vast theory that incorporates anything that has to do with or interprets social phenomena. Usually this is shown by networking charts or some sort of graph theory. We took a more liberal approach and combined it with Gender Role Theory. Gender Role Theory focuses on how different sexes represent themselves in the real world. According the World Health Organization, "'sex' refers to the biological and physiological characteristics that define men and women. [While] 'Gender' refers to the socially constructed roles, behaviors, activities, and attributes that a given society considers appropriate for men and women" (WHO, 2011).

The student provides a strong description here of the distinction between gender and sex. An overview of this distinction in the introduction may have helped clear up points of confusion earlier in the paper.

The theory explanation is a little thin and could use more development to better explain how the research question is being addressed by the theories.

Using this, we decided to select one or two attributes that can distinguish someone as masculine or feminine or for lack of better words: male or female. To do this we chose two different movie genres: thrillers and chick-flicks. The thriller genre signifies a more masculine choice as it usually utilizes action, suspense and male-lead getting a pretty girl. The chick-flick genre signifies a more feminine choice as this genre usually involves attractive young men being the object of affection. In addition, chick-flicks usually allow an outlet for emotion. This could be done through crying, sadness, happiness, or even joy. This study does not cover individual actions but instead groups these emotions all under chick-flicks.

The study could be strengthened by using established definitions for "thriller" and "chick-flick" (supported, of course, with source citations).

For the purposes of this study, we shall define a chick-flick to be any movie that fits the description above. That movie has a main demographic of women, allows for an outlet for emotion, features attractive men, or is a romantic movie. Keep in mind several movies overlap genres and themes but thrillers and chick-flicks seem to be on the opposite sides of the scale. Originally, we were going to use action movies, but there has been a trend in the last decade to make action movies have a steady romantic B-plot. Although these plots are not always well developed, we decided that thriller we satisfy the same requirements with less hassle.

Review the section earlier in the chapter on mutually exclusive categories. Is the student going to run into data collection issues when the movie genres may overlap?

Data

After sifting through our data and picking out the participants that corrupted data or filled out the form incorrectly. This left us with 19 participants – 11 males and nine females. The data can be seen in Table 1. Looking at the data we could see that, on average, men chose thrillers over chick-flicks, while females chose chick-flicks over thrillers. This is good and means we were correct with our first assumptions and the questions

are modeled correctly. To be more formal we ran a one-sample test (Table 2) on the entire sample – nothing jumped up as significant so we continued onto the main data.

> The Table 1 raw data is normally not expected to be included in the write-up of a study. However, the instructor may have required inclusion as part of the assignment.

However, this does not tell us anything about the connection between male and female genre choices and social interactions. First, we did an ANOVA to see if we have correlation between thriller preferences, Chick-Flick preferences, and the comparison preference with total amount of friends (See Table 3). As the table shows, there is no significant correlation between them. If Sig. < .05 then we would have a significant correlation. Nevertheless, that does not mean we do not have a result, in fact using our data we can say there is definitely no correlation between gender roles and total amount of friends.

As mentioned above we want to know the role of gender on a greater and more interactive social life. If we take the total number of friends to satisfy how great a social life is, we still need to look into interactive social life. We looked at our data in an ANOVA again but this time over friends talked to during a normal week (See Figure 4). This data seems even more random, getting nowhere near .05. So once again, we can conclude, that gender roles have no correlation with the amount of friends one interacts with on a regular basis.

Although two null hypotheses were not the main intention of this paper, all is not lost. With a sample of only 19 people, we cannot really say if we fully represented the population. With more data, there is a chance that we could have a correlation. In fact, playing with some of our data we see that there seems to be a significant correlation between those who are more feminine and to the amount of people one talks to in a single day (See Figure 5). We believe that this is purely a coincidence although it is statically significant.

> The student ran a number of different statistical tests and produced some interesting results. Normally, however, the details about the planned statistical packages are explained and justified in the method section of the paper showing the study has been carefully planned.

Our next step would be to collect more data and from a bigger population. Then we could recalculate these statistical tests and see if we have additional correlations and if our only significant correlation still holds. However, optimally we should shoot for more than 19 participants in a sample, so that we know our results hold some merit. In addition, we could look into the emotions a movie evokes and add additional gender role questions.

In conclusion, we tried to find a correlation between gender roles and social interactions. We defined gender roles simply by movie choice and we defined social interaction with amount of people talked to. To improve upon this we could get more data and more detailed questioning. Our results we found this time showed no significant correlation but we believe they may be one with more data points.

Table 1

Gender	Past Year	Thriller	Chick-Flicks	Between	Estimate	Normally in a week	Previous Week	Today
Male	10	8	6	3	40	30	30	10
Male	5	9	6	2	205	60	65	23
Male	5	10	10	3	30	15	10	8
Male	10	1	2	5	40	15	20	9
Male	10	8	4	2	80	40	30	10
Female	10	1	8	10	15	5	4	6
Female	10	7	10	5	50	15	20	8
Female	5	4	8	7	25	12	25	8
Male	5	8	3	2	30	5	7	3
Female	5	1	8	10	26	15	20	8
Female	5	6	5	5	8	7	6	3
Female	5	4	8	8	6	10	16	12
Female	5	6	6	5	0	5	7	3

Male	10	7	5	4	50	25	25	10
Male	10	6	6	5	100	40	50	20
Male	10	7	7	4	57	23	9	14
Female	10	7	4	4	40	20	15	15
Male	10	8	7	3	30	20	30	15
Male	10	8	2	2	15	5	20	1

Table 2 One Sample Test

	Test Value = 0					
					95% Confidence Interval of the Difference	
	t	df	Sig. (2-tailed)	Mean Difference	Lower	Upper
Thriller	9.835	18	.000	6.10526	4.8011	7.4094
Chick	11.141	18	.000	6.05263	4.9112	7.1940
Compared	8.182	18	.000	4.68421	3.4814	5.8871
Friends	4.214	18	.001	44.57895	22.3557	66.8022
Normal Week	5.751	18	.000	19.31579	12.2594	26.3722
Last Week	6.083	18	.000	21.52632	14.0917	28.9609
Today	7.396	18	.000	9.78947	7.0087	12.5703

Table 3 ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
Thriller	Between Groups	96.000	8	12.000		
	Within Groups	55.833	6	9.306		
	Total	131.789	18			
Chick	Between Groups	37.781	12	3.148	.299	.964
	Within Groups	63.167	6	10.528		
	Total	100.947	18			
Compared	Between Groups	76.939	12	6.412	1.094	.483
	Within Groups	35.167	6	5.861		
	Total	112.105	18			

Table 4 ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
Thriller	Between Groups	35.789	10	3.579	.298	.961
	Within Groups	96.000	8	12.000		
	Total	131.789	18			
Chick	Between Groups	28.697	10	2.870	.318	.953
	Within Groups	72.250	8	9.031		
	Total	100.947	18			
Compared	Between Groups	37.605	10	3.761	.404	.910
	Within Groups	74.500	8	9.313		
	Total	112.105	18			

Table 5 ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
Thriller	Between Groups	82.956	10	8.296	1.359	.339
	Within Groups	48.833	8	6.104		
	Total	131.789	18			
Chick	Between Groups	85.781	10	8.578	4.525	.021
	Within Groups	15.167	8	1.896		
	Total	100.947	18			
Compared	Between Groups	76.855	10	7.686	1.744	.221
	Within Groups	35.250	8	4.406		
	Total	112.105	18			

Reference

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16 Descriptive Statistics

Chapter Outline

What Will I Learn About Descriptive Statistics?

Stephen might not be the biggest baseball fan, but one thing that interests him about baseball is the statistics. Baseball is filled with so many abbreviations and acronyms that describe a variety of statistics about the game: BA (batting average), EQA (equivalent average), FC (fielder's choice), LOB (left on base), RISP (runner in scoring position), SB (stolen base), BS (blown save), GF (games finished), HRA (home runs allowed), TC (total chances), VORP (value over replacement player), and GB (games behind), to name a few. Two of the best-known statistics are ERA (earned run average), and RBI (run batted in). Each one is a descriptive statistic outlining the effectiveness and ability of a pitcher, batter, or runner.

ERA represents the mean (average) of earned runs given up by a pitcher per nine innings, which is the normal time of a baseball game. The statistic is calculated by dividing the number of earned runs by the number of innings pitched and then multiplying by nine. Historically, Ed Walsh, who played from 1904 to 1917, had the best ERA in history of 1.82, meaning 1.82 earned runs allowed per nine innings. In the modern era, Mariano Rivera, who played for the New York Yankees from 1995 to 2013, had an ERA of 2.21, while Clayton Kershaw, who plays for the LA Dodgers (2008-), has an ERA of 2.40.

RBI is a descriptive statistic representing the number of times a batter makes a play that allows a run to be scored. Essentially, each time a batter hits the ball and any player scores, the result goes into their RBI. Hank Aaron is the all-time career leader in RBIs with 2,297. Albert Pujols, who plays for the Los Angeles Angels is currently the all-time leader in RBIs among active players in 2018, with 1,918.

Both the ERA and RBI statistic, and many others, tell baseball fans a lot about the game and their favorite players. A lower ERA means the pitcher is doing a better job, while a higher RBI describes a more successful batter. In Chapter 16, you will learn about descriptive statistics. Before we move on, we should define statistics and descriptive statistics. Statistics is a way of organizing, describing, and making inferences from data. Statistical methods are used in the natural, physical, and social sciences (communication). Descriptive statistics show how sample data appear in numerical and visual terms. In this chapter, we talk more about the language of statistical methods and how to apply these methods.

Visual Representations of Data

We cannot recall how many students have asked us for tips on how to better understand quantitative research. We both admit that quantitative methods, like other methods, may not be the easiest to grasp, but a step-by-step approach can simplify the process. Stephen and Dan recommend as a first step when doing quantitative research to find some way to look at your data in picture form. Representations of data can be very helpful in showing us what we have to work with and what we don't. Various kinds of tables, charts, graphs, and other representations show data in a non-numeric form. The choice of form comes down to the type of data or variables in your study.

If you are working with nominal and/or ordinal data, pie and/or bar charts are the most appropriate choices to represent your data. A pie chart is a circle divided into proportional parts representing statistical data. Each part of the circle represents a specific category. You may have seen, for example, pie charts in newspapers or magazines representing "male" and "female." Figure 16.1 is based on a sample of individuals who completed the organizational dissent scale (Kassing, 1998) (n = 1481). The pie chart visually represents the difference in number between men and women in the sample. A quick glance at the pie chart reveals that the sample has more males than females. The pie chart shows how visualization can be helpful when you begin your data analysis by showing what is going on with your data. While pie charts are a good first step, they are rarely used in research papers and articles since they do not offer sophisticated insight about data distribution.

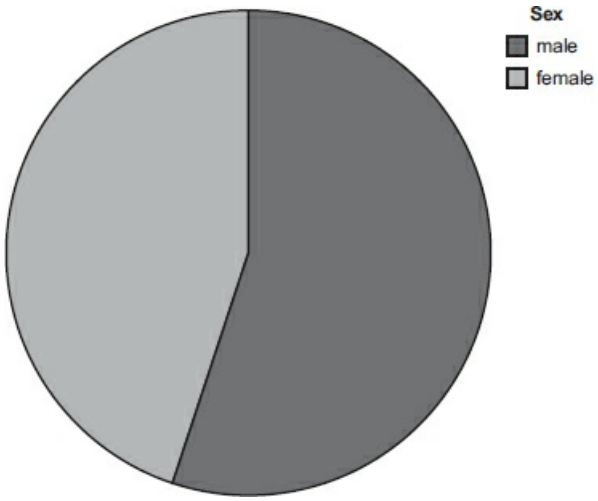

Figure 16.1 Males and Females Who Completed the Organizational Dissent Scale

A more advanced option is the bar chart. A bar chart displays the category (variable) on the horizontal axis of the chart and the numeric value of the variable on the vertical axis. Therefore, in the case of males and females in the same organizational dissent study, a bar chart looks like Figure 16.2.

In this case, the horizontal axis (x-axis or abscissa) defines the variables, while the vertical axis (y-axis or ordinate) lists the quantities of the variables. Bar charts can be taken a step further. With a bar chart, you can compare multiple groups on various categories/variables. One of the variables of interest in organizational dissent research is how long an individual has worked for a company. With a bar chart, you can show the relationship between sex and how many years an individual has worked for a company (Figure 16.3). A quick glance at the table shows clear differences between males and females in the mean number of years they have worked with a company.

If you are working with interval and/or ratio data, a histogram is the most common visual representation for your data. However, you will rarely see a graph or representation reported in research papers or journals. Just like pie charts and bar charts, histograms are most often used to help researchers understand their data during preliminary analysis.

A histogram is similar to a bar chart. However, in this case, continuous data is represented on the x-axis, unlike nominal or ordinal data in a bar chart. A second difference you will notice with a histogram is that the bars are generally connected on a histogram (unless there is a gap in values), while the bars are never connected on a bar chart. The example in Figure 16.4 is taken from a study on communication apprehension (CA). You may remember hearing about communication apprehension from a public speaking class. CA is a person's fear or

anxiety of real or anticipated communication with others (McCroskey, Simpson, & Richmond, 1982). The values in this table represent the mean CA scores of 336 individuals.

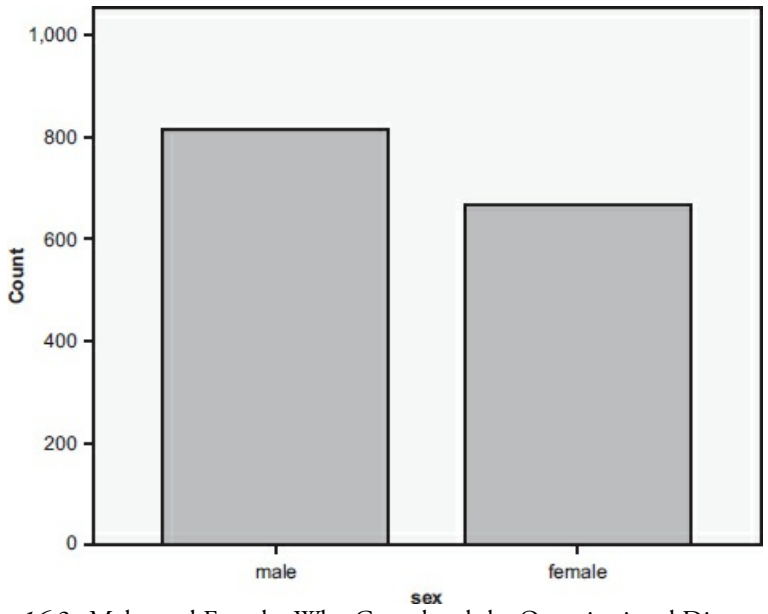

Figure 16.2 Males and Females Who Completed the Organizational Dissent Scale

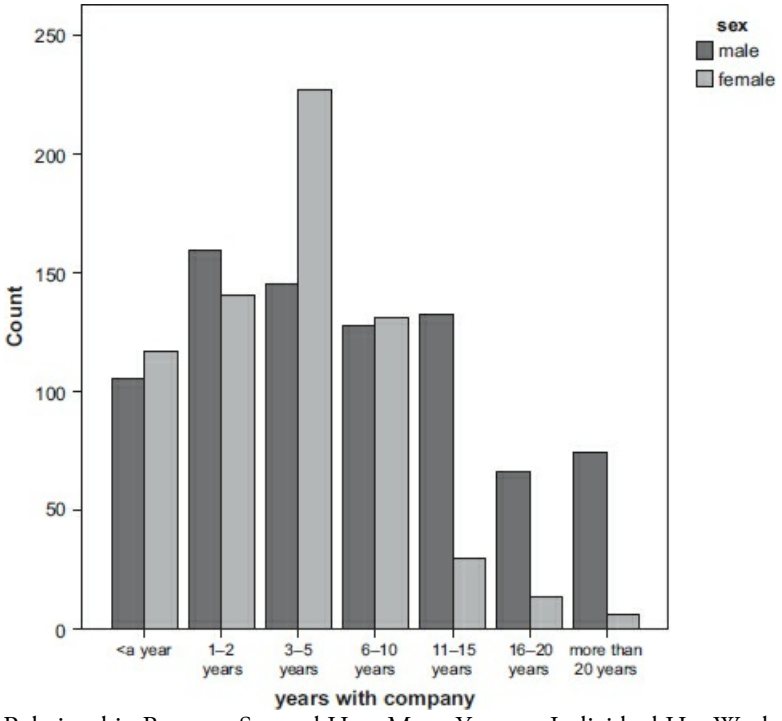

Figure 16.3 The Relationship Between Sex and How Many Years an Individual Has Worked for a Company

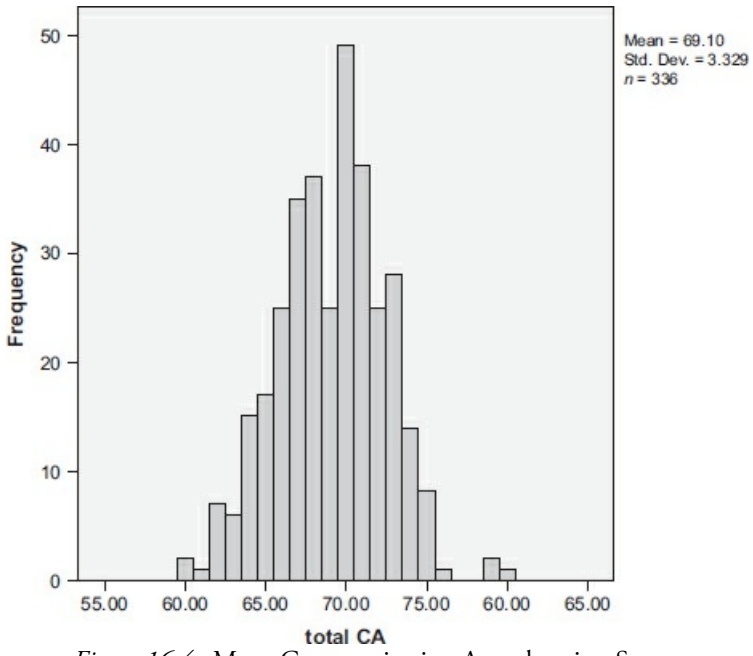

Figure 16.4 Mean Communication Apprehension Scores

Statistical programs such as SPSS and SAS make the creation of visual representations fairly simple. Once you have data entered into one of the programs, a visual representation is just a few clicks away. However, just because we can create visual representations does not mean we need to make them for everything. A key question to consider regarding visual representations is: Do I need it? If you can describe the data easily with a visual, then make one, if not, then don't.

> What kind of visual representation could you use to explain ERAs or RBIs? You could use a pie chart to show which teams reach different statistical thresholds. Such a chart would show any trends among different teams. A histogram could track over time the mean RBI in the league to show any potential trends. The key is that you can visually represent any statistical measure.

Measures of Central Tendency

Measures of central tendency reduce data down to a single descriptive statistic. Various measures of central tendency are available, and each differs in how it defines what is typical or average.

The mode is the most basic and most frequently occurring measure of central tendency. Consider the following (hypothetical) example about the home-nation of tourists who visit Wellington, New Zealand, where Stephen lives, in one month:

Data 16.1

500 Australians
900 Chinese
200 Americans
200 Japanese
125 Fijians
100 Indonesians
65 Swedes
150 Indians
55 Brazilians
180 Germans
30 Italians
90 Brits

What is the mode for tourists visiting Wellington? The most frequently occurring nationality is Chinese (n = 500). This is a case of a unimodal sample (one mode). A sample with two modes is bimodal, and three modes are trimodal. A sample with four or more modes is not desirable (we will talk more about this a little later in the chapter). Modes are rarely used in communication research. Modes by themselves are not really meaningful. However, we will shortly discuss some exceptions.

The median is the midpoint of a distribution with 50% of the scores above and 50% below the midpoint. Consider the following fictitious example of yearly salaries for an academic department.

Data 16.2

Faculty Member #1 - $135,456
Faculty Member #2 - $25,500
Faculty Member #3 - $32,456
Faculty Member #4 - $54,365
Faculty Member #5 - $37,668

What is the median yearly income in this department? When you sort the data from lowest to highest,

$25,500 $32,456 $37,668 $54,365 $135,456

you find that the middle score-$37,668-is the median. However, the procedure only works if you have an odd number of scores. If you have an even number, there is no middle score. Add a sixth person to the Department (Faculty Member #6 - $34,500). The sorted data now looks like this:

$25,500 $32,456 $34,500 $37,668 $54,365 $135,456

Since the data has no one middle score, you need to calculate the sum of the two middle scores ($34,500 and $37,688) and divide by 2 ($34,500 + $37,688/2 = $36,084). The median can sometimes be a nice measure to get a rough estimate of the middle of a distribution, but it is not the average, or the most exact measurement of the center of a distribution. We will discuss this more later in the chapter. You should not stress about calculating the median by hand; statistical computer programs do it for us! (But we should still know what the software is doing.)

The third kind measure of central tendency is the mean, which is an average of the scores. The mean is the most commonly reported measure of central tendency. A mean is the sum of the data divided by the number of cases making up the sum. We're going to present you with a couple of equations. Don't get scared by the equations. Look for the "big picture" and all the pieces will fit together. Remember, we have computers to help with the calculations. The formula for the mean requires taking all the scores, adding them together, then dividing by the number of scores.

Equation 16.1

$$\overline{x} = \frac{\sum x}{n}$$

In this formula, $\overline{x}$ is the mean, Σ is the symbol use to add up the values of your variable (X), which is then divided by the number of cases (n). Here is an example for you to try on the following set of numbers which represent the number of vacation days people take to visit Wellington per year (n = 30).

Data 16.3

1, 2, 3, 3, 4, 4, 5, 5, 6, 6, 7, 8, 8, 9, 9, 10, 10, 11, 15, 15, 17, 18, 18, 19, 20, 22, 23, 25, 30, 30

$$\overline{x} = \frac{363}{30}$$

Therefore, $\overline{x} = 12.1$. In case you were wondering, the median (9 + 10/2) = 9.5, and the data distribution has

many modes (3, 4, 5, 6, 8, 9, 10, 15, 18, 30).

Now, we have three measures of central tendency-mode, median, and mean. The question is: when do I use which one? We offer three "rules" to follow.

When to Use which Measure of Central Tendency

Rule 1: If your data is nominal you should use the mode to report the data. For example, if you are reporting data about the most common hair color on campus, the mode is the most appropriate measure.

Rule 2: If you are reporting ordinal, interval and/or ratio data, you should use the mean, as these types of variables lend themselves to having an average (mean).

Rule 3: Keep in mind that the mean can be sensitive to extreme scores. Therefore, when you have extreme scores and the data is skewed (we will talk more specifically about skew in a minute), you should use the median.

Go back to Data 16.2 with the data on faculty salaries. The median is $37,668, while the mean is $57,089. The mean is quite a bit higher than the median (almost $20,000 higher!). This difference is due in large part to the $135,456 salary. So, remember, that the mean is sensitive to extreme scores.

Variability

While you will typically find the mean (or another measure of central tendency) reported in most research articles, another statistic often indicates how the data is dispersed or varied. You should know about three main kinds of variability: range, standard deviation, and variance. The simplest kind of variability is range, which you find by subtracting the lowest score from the highest score in a distribution (r = h – l).

Let's look at the set of scores in Data 16.3. The range is equal to (30 – 1), or 29. The range simply tells us the difference between the highest and the lowest numbers in a set of scores. The range does not tell us anything about the frequency of scores, since we could have multiple 30s in a distribution and few of anything else. The range only tells us the distance between scores.

A second kind of variability is the variance (s^2), which is a measure of how much distribution exists around a single point in a distribution, typically the mean. To calculate the variance, you need to first know the deviation (d) scores, which are found by subtracting every x score from the mean ($d = x$ – mean). Once you have the deviation scores, you can compute the formula for the variance (see below):

Equation 16.2

$$s^2 = \frac{\sum d^2}{n-1}$$

The variance from 16.3 is:

$$s^2 = \frac{12.1^2}{30-1} = \frac{146.41}{29} = 5.05$$

The variance is rarely reported in scholarly research, since it is difficult to subtract every score from the mean. However, squaring the values changes how the values were originally entered and measured. Thus, most researchers take the square root of the variance for a more parsimonious measure of variability. This is called the standard deviation.

The standard deviation (represented by the symbol sigma, σ, shows how much statistical variation exists from the mean and is the square root of the variance. For the data in Data 16.3, the σ = .74. The standard deviation is the average distance between a score (measurement) and the mean. Larger standard deviations (ignoring the sign) represent more variability in the distribution, while smaller standard deviations represent less variability. So, in our number of vacation days example (Data 16.3), the standard deviation is .74. This means that the average

difference between any person's number of vacation days and the mean is .74 days. The formula for the standard deviation is as follows:

Equation 16.3

$$\sigma = \sqrt{\frac{\sum (X - \text{Mean})^2}{n - 1}}$$

The standard deviation tells us how far scores "deviate," or differ, from the mean. The standard deviation is helpful for research involving hypothesis-testing and inferential statistics. For now, know that as you read communication journal articles you will find that the two most often used descriptive statistics are the mean and the standard deviation. McEwan and Guerrero (2012) study friendship maintenance behaviors among college students. They report the means and standard deviations of various friendship maintenance behaviors, which helps illustrate the ways in which college students build and maintain friendship networks (p. 428). The reporting of such descriptive statistics is standard practice for researchers in communication and other scholarly disciplines.

As with the creation of visual representations, statistical programs such as SPSS and SAS can easily compute central tendency and variability. You don't have to compute the mean, standard deviation, and variance by hand, but it's good to know *how* the formulas work. Once you know how to use a statistical program, you enter the data, click a few buttons, and presto, you have your results.

If you are working for a baseball team's marketing or advertising branch, the uses of central tendency and variability are endless. Statistics such as the RBI can be big money. Whenever a player is close to breaking any baseball record, teams promote such races, like the 1998 homerun race between Mark McGwire and Sammy Sosa. In the end, both broke a previous single-season record held by Roger Maris, and increased interest and ticket sales. On a down note, both players have now been linked to or admitted to taking steroids during the season.

Distribution Shapes

Now that you have an understanding of visual representations of data, central tendency, and variability, we can discuss how these elements can affect the shape of your data distribution. Visual representations such as a histogram can show the shape of a distribution. A distribution has four key characteristics: symmetry, skew, modality, and kurtosis.

Your data distribution can be symmetrical or asymmetrical. Imagine you have a histogram. Now draw a line down the center. If the left and the right side of the distribution are identical (or fairly close to identical) then the distribution is symmetrical. If the two sides are not identical, then the distribution is asymmetrical. A symmetrical distribution will have an identical mean, median, and mode in a bell curve. A perfect bell curve is hard to come by, but Figure 16.5 shows a hypothetical distribution of how many hundreds of New Zealand dollars the average tourist spends per visit in Wellington. You will notice that the distribution is symmetrical and bell-shaped. A symmetrical distribution is what we call a normal distribution. Symmetrical distributions have specific aspects which allow higher-level statistical testing than extremely asymmetrical distributions.

An asymmetrical distribution, however, indicates a high probability that the data is skewed in one direction. Skew means that the majority of scores are shifted to the right or left of a distribution's center. A way to understand skew is to look at the "tail" of a distribution. People's income is a classic example of how a distribution can be skewed. Most people's income is skewed to the lower end of the pay scale, while only a few people make a lot of money. This is an example of positive skew, where the majority of the scores shift to the left of the distribution (lower end) and the tail of the distribution points out to the higher numbers. A distribution can also be negatively skewed. A negative skew is when the majority of the scores shift to the right of the distribution (higher end) and the tail of the distribution points to the lower numbers. An example is retirement age. More people retire when they are 65 or older than when they are 50 or younger. Skewed distribution points to a random or constant error in the data. Figure 16.6 depicts a positively skewed, and Figure 16.7 shows a negatively skewed, distribution. In Figure 16.6 you can see that most of the data is on the left-hand side of the histogram, while in

Figure 16.7 the data is on the right-hand side.

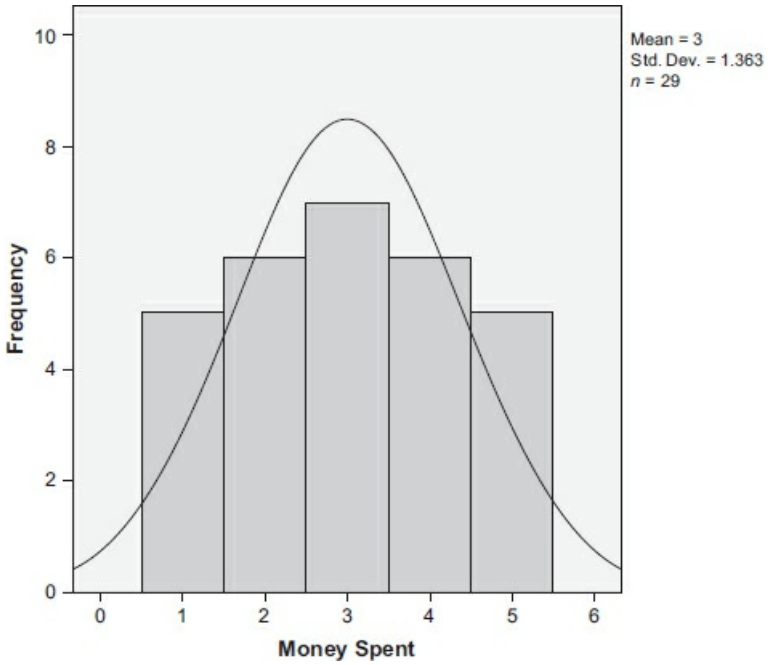

Figure 16.5 Average New Zealand Dollars Tourists Spend Per Visit in Wellington

Extremely skewed data can lead to misleading statistics, as skewed distributions can push up or pull down the mean. Consider salaries again. A company may say that its average (mean) salary is relatively good.

Unfortunately, the mean may be pulled up by a select few very high-paid employees, which skew the mean. While it's important to know in which direction your distribution is skewed (if at all), the modality of your distribution is also important. Modality refers to the number of peaks in your distribution. A distribution can be unimodal with one peak, or noticeable "hill" in the distribution. A distribution can also be bimodal (two peaks), or multimodal (multiple peaks). Imagine we were to ask 100 people about their communication apprehension (CA). Fifty of those people have never taken a speech class before and 50 of the people are on college speech and debate teams. Chances are that we will have two very separate kinds of scores in this distribution; one group will likely have lower CA than the other group. The difference between the two groups will probably create a bimodal distribution like the one displayed in Figure 16.8. The distribution clearly shows two distinct groups of individuals.

The final way to describe your distribution is by analyzing its kurtosis. Kurtosis measures how peaked your distribution is. The more peaked the distribution, the more kurtosis it has; a distribution with high kurtosis is considered leptokurtic (leaping). This type of distribution does not have a lot of variance and most of the scores are similar. A leptokurtic result may occur because individuals in a culture may tend to answer questions similarly.

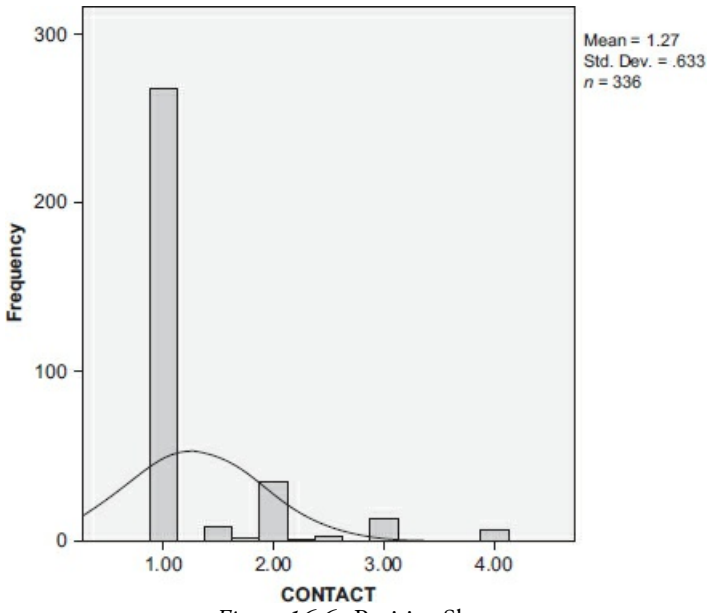

Figure 16.6 Positive Skew

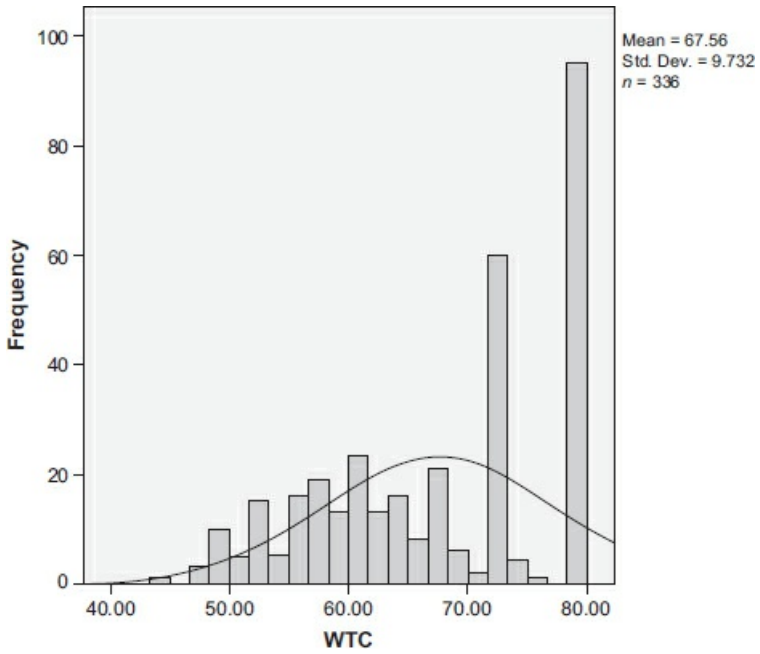

Figure 16.7 Negative Skew

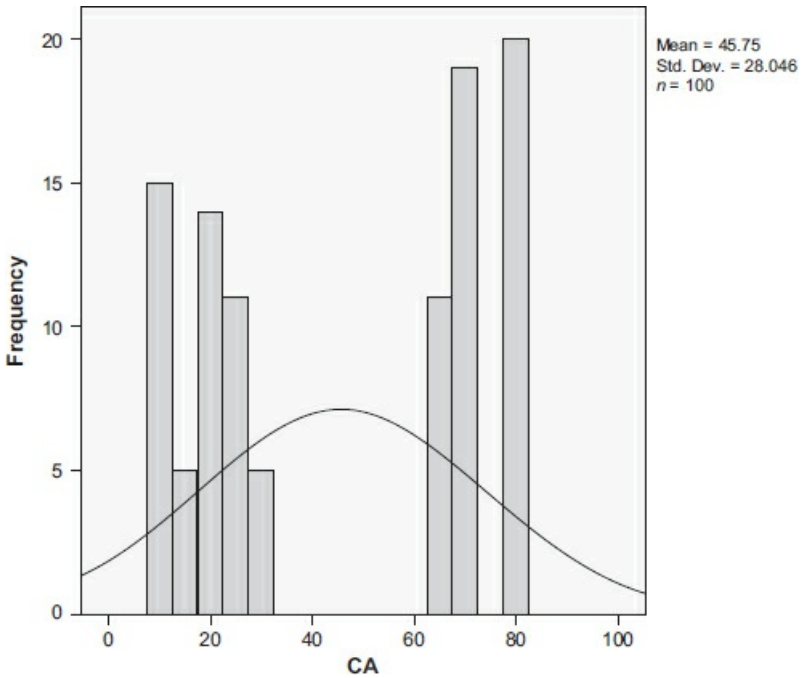

Figure 16.8 Bimodal Distribution

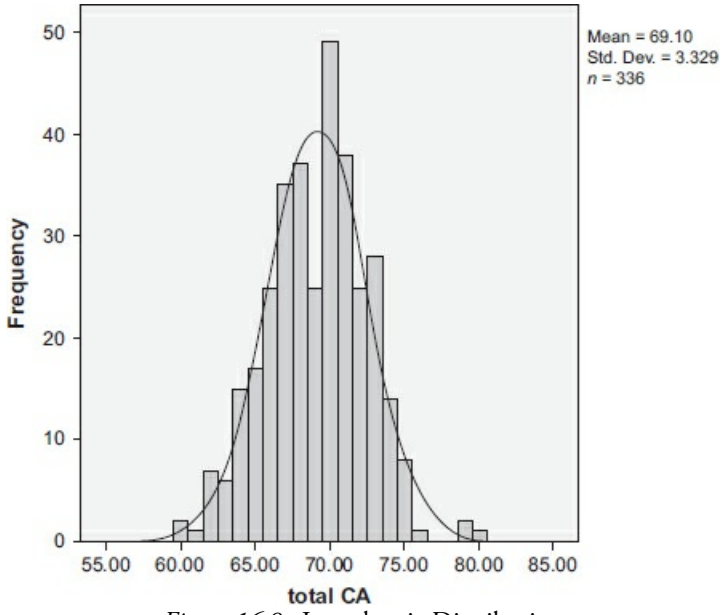

Figure 16.9 Leptokurtic Distribution

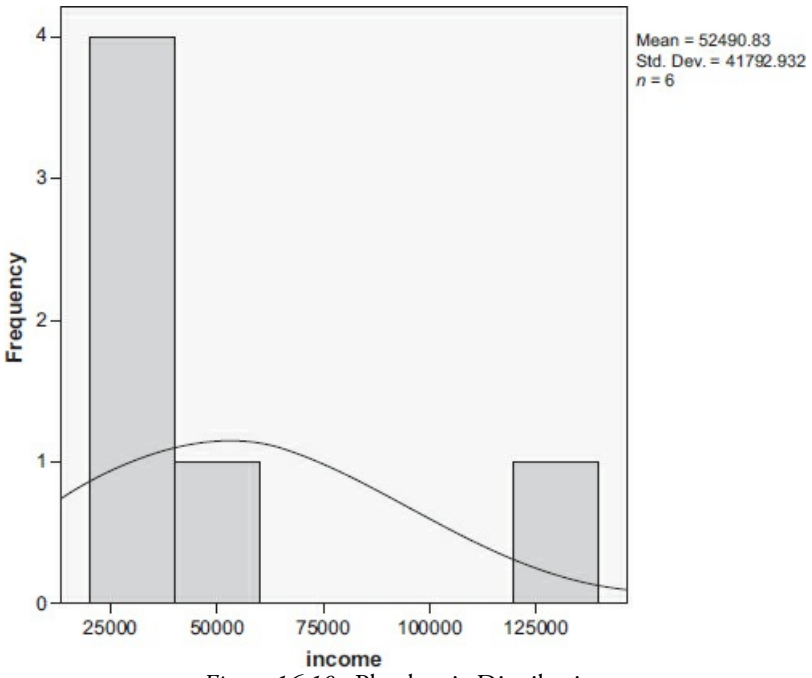

Figure 16.10 Platykurtic Distribution

On the other hand, a distribution with little kurtosis is considered platykurtic (plateaued or flat). A platykurtic result generally means that each score is happening with almost the same amount of frequency. Playtkurtic distributions typically have multiple modes, like the distribution in Data 16.3. The multiple modes could be attributed to a variety of factors: the instrument you are using could be unreliable or invalid, or you might have a constant or random error. Figure 16.9 depicts a leptokurtic distribution and 16.10 a platykurtic distribution. When you compare the two pictures, you can see how the data is distributed differently. In 16.9, the data lumps together in the middle, while in 16.10 the data does not cluster together.

The level of skewness and kurtosis is relatively easy to compute in your data since SPSS and SAS can compute the figures for you. Is there a threshold for skewness and kurtosis? No official cut-off criteria exist for determining when skewness or kurtosis is *too* large and your data is *too* asymmetrical, and thus non-normal. Some statisticians will get concerned about skewness and kurtosis at –1/1, while others will not be bothered at –7/7 (Burdenski, 2000; Curran, West, & Finch, 1996; Looney, 1995).

> While a high RBI is assumed to represent a successful batter, this might not always be the case. The statistic has faced some criticism. Some baseball commentators and historians have argued that the statistic is biased as it rewards a batter's position in the batting order; essentially, batters who bat after others who get on base are rewarded for the efforts of previous successful batters. Thus, RBI results may be skewed due to "good" batters batting for average teams, and other "average" batters hitting after "better" batters. The point is that a statistic requires an understanding of the context around it.

Summary

This chapter was a how-to guide to descriptive statistics. Generally, statistics are used by social scientific researchers, but can sometimes be used by interpretive and critical/cultural researchers, depending on the focus of the study. Hopefully, after reading the chapter and the accompanying student paper, you feel comfortable enough to try and use some descriptive statistics. The next chapter is a how-to guide to inferential statistics.

Key Steps and Things to Consider

Here are some key things to remember as you compute descriptive statistics or prepare visual representations of data.

1. Descriptive statistics describe data.
2. Pie and bar charts predominantly show frequencies of categories, while histograms display continuous data.
3. Ask yourself if visually representing your data will be helpful to the reader before you produce a visual representation.
4. Mode, median, and mean are different. Remember why we use and report each in certain circumstances.
5. Range, variance, and standard deviation are different. Remember why we use and report each in certain circumstances as well.
6. Data distributions can, and often are, shaped in different ways. This is attributed to things like skewness and kurtosis. Know what these things are and what they mean to your data.

Activities

1. Read the sample student paper at the end of the chapter. Using the data from the student paper, try to construct a pie chart, bar chart, and histogram.
2. Using the data from the student paper, prepare tables of data in APA style.
3. Compare the charts from Activity 1 with the Tables from Activity 2. Which set of data representation is appropriate for the data? Which set of data representation best informs the reader?

Discussion Questions

1. Read the example student paper at the end of the chapter. The student drifted from a communication focus in the study. How could you fix the research to pull the focus back to communication studies?
2. What data could be collected which keeps a research focus in communication studies?
3. What descriptive statistics are appropriate for the data you have collected?

Key Terms

Asymmetrical Distribution
Bar Chart
Descriptive Statistics
Histogram
Kurtosis
Leptokurtic
Mean
Measures of Central Tendency
Median
Modality
Mode
Negative Skew
Pie Chart
Platykurtic
Positive Skew
Range
Skew
Standard Deviation
Statistics
Symmetrical Distribution
Variance

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Undergraduate Descriptive Statistics Paper

The Role of Sex in Automobile Accident & Violation History

Daniel Allen

In society today there are many stereotypes. This is true of driving habits, where there are stereotypes of the ways men and women drive. These stereotypes include the idea that men are competent, if aggressive, drivers, while women are incompetent drivers (James, 2007). These stereotypes, often seen as false in nature, are advocated by some as being definitively true in both the cases of males and female drivers. However, studies have shown that males are statistically worse drivers, with insurance premiums higher for male drivers due to an increased risk of accidents, tickets, and other automobile related issues; male drivers are in fact 3.41 times more likely to be charged with reckless driving than females (Tannert, 2009). This is one of many statistics that support the idea that men are careless drivers in comparison to women. Thus, in an attempt to find proof either proving or disproving these stereotypes, this study compares the driving history and habits of male drivers to female drivers. Both sexes were asked to complete the same survey about their legal driving history, involving accidents, tickets or other legal issues, and even simple driving habits.

The student has made a "classic" mistake. He forgot to keep his research centered in the discipline. Communication studies overlaps and draws from a significant number of other disciplines—sociology, psychology, English, philosophy, women's studies, gender studies, ethnic studies, and business, to name just a few. Interesting questions may emerge worthy of research but we need to make sure and always double-check the foundation for the research. The student in this paper starts with some nice premises focusing on stereotypes of driving habits. Stereotypes are a legitimate communication question. But the actual thesis of the research sidesteps the communication issues.

The student could use some definitions to better frame the issue which will help establish what data to collect. For example, what constitutes competent, aggressive, and incompetent.

To test this, the questionnaire was distributed to an equal number of male and female participants, all of college ages (18–22). Of the potential participants, it was required that the person possess a driver's license and also have an automobile on campus to eliminate any bias caused by students who very rarely or did not drive a vehicle.

The age of participants and status as college students may create statistical anomalies. Driving habits may change throughout life, so the way someone drives at 18–22 may not reflect how someone between 30 and 45 years old drives. College students may have different driving habits than alums.

In total, 80 participants completed the questionnaire. By choosing upper-classmen houses at random on the Marist College campus, a similar, yet random, selection of both males and females was completed. The 12-question survey included sections on frequency of driving activities and what kind of driving, accident history and whether the participant was found at fault for any accidents, legal history, and common driving habits such as violation of laws and mobile device use. The last question asked the participants to rank their driving abilities on a Likert scale of 1 to 10, with 10 being the optimal driving ability. Participants were unaware of the comparison between sexes in the questionnaire in an attempt to limit any possible bias. The major areas analyzed in the results of the questionnaire were the frequency of accidents, the frequency of being caught during a traffic violation, the frequency of bad driving habits and traffic violations, and an in-depth analysis of the self-evaluation of driving abilities.

The student does a nice job of describing the process for participant selection. The student describes the questionnaire in clear and precise language, including the steps taken to limit bias.

One very interesting statistic arising from the questionnaire involved the amount of time spent driving by participants. Of the 40 male participants, 32 (80%) answered they drove daily or almost daily – four to six times per week – with only eight answering they drove less than four times per week. Among the female participants, 21 (52.5%) answered they drove the same amount, nearly a 30% difference. This number could prove difficult in analyzing the remainder of statistics, as this would indicate male drivers spend much more time behind the wheel of a motor vehicle. The results of the questionnaire show similar results for men and women in the section regarding accident history. Of the 80 participants, only three reported having been involved in an accident, two men and one woman, and none of the three reported they were found at fault for the incident.

The student makes a potential inaccuracy about the data. The student assumes that the number of times someone drives equates with time spent driving. Consider this scenario: Person A drives every day Monday through Friday for 10 minutes each day (5 days * 10 minutes = 50 minutes/week). Person B drives two days a week for 45 minutes (90 minutes/week). Using the framework established by the student researcher, Person A drives more than twice as much as Person B. However, Person B actually spends more than twice the time driving.

The student researcher could have collected data on multiple levels: 1) number of times one drives a week; 2) number of minutes/hours one drives a week; 3) number of miles one drives a week. The researcher could have taken the data to even more levels by inquiring about where the driving occurred (e.g., metro, suburban, rural), if driving alone or with others, and what type of vehicle was driven. The additional levels of data may help better address the research question.

A key point to remember in data collection is that it is better to collect data that you may not use, than to find out later that you really need data you did not collect.

The number of traffic violations differed highly between male and female drivers, with 22 (55%) male drivers reporting that they had received a ticket for a traffic violation while only eight (20%) female drivers reported the same. Of these violations, nearly all violations were speeding tickets, with one male reporting a reckless driving charge, one male reporting cell phone violations, two males reporting seatbelt violations, three females reporting cell phone violations, and one female reporting seatbelt violations. Of these four male drivers who received tickets other than speeding, all but one reported having also received speeding tickets. Of these four female drivers, only two reported they had received speeding tickets. Therefore, whereas male drivers are about 50% certain to receive a speeding ticket, female drivers are only about 15% certain to receive a similar ticket – a large difference. Altogether, male drivers were 35 percent more likely to receive a ticket from a police officer.

The rundown of the results can get awkward to follow. The student could streamline the presentation of the results with the visual representation of data. A simple table with male/female on the vertical and the type of violation across the top would simplify the review of the results for the reader.

A table can help both research and reader. Tables easily display results and allow for the researcher to unpack and explain the most salient points in the text, instead of writing up every point of data in the text.

APA style is very specific about how tables are formatted and labeled. Make sure to review your APA manual when putting together a table.

Another major difference was the use a cellular device during operation of a motor vehicle. Of the 40 male drivers, 16 (40%) answered they would answer a call or text while driving, with eight answering only voice use, six answering only texting, and an additional two answering they did both. The female statistic for use of a cell phone, and in particular texting while driving, was much higher than the 40% of males who used a phone and 20% who would text while driving. Of the female drivers, 33 (82.5%) answered they would answer a call or text while driving, with five answering only voice use, two answering only texting, and 26 answering they did both. This means 70% of the female participants would text while operating a motor vehicle, a full 50% higher than male participants. This illustrates a trend of women tending to communicate via cell phone much more than men, and especially through texting since in total 77.5% of female drivers would at least use

calling capabilities during driving. Of the 80 participants of the survey, not a single participant, male or female, indicated that they had a handsfree device for their cell phones when asked.

A second table laying out the results for cellular device use would again help to streamline the presentation of the results. Remember to refer to the APA style manual when prepping a table.

Whereas the results of the two previous sections showed clear differences between male and female drivers, the driving habit section showed little difference, if only supporting the trend that male drivers commit more traffic violations than women. Of the male participants, 27 (67.5%) reported they regularly speed while driving, and two of the 27 male drivers reported they not use blinkers often. Of the female participants, 24 (60%) reported they regularly speed, with 7 of the female drivers also reporting they do not use blinkers regularly. This does indicate male drivers are slightly more prone to speeding, yet also indicates female drivers are more than three times to neglect using blinkers while driving. Altogether, male and female drivers were not very different in reporting instances of unlawful driving habits.

Another section where male and female drivers differed tremendously was in the self-evaluation at the end. Male drivers tended to score themselves much better than women, with the male average slightly below 8 out of 10, whereas the female average was only about 6.5 out of 10. Male scores ranged from 4 to 10 and female scores from 5 to 9, given male drivers a larger range of scores. The median for male drivers was an 8 and for female drivers a 6, indicating a difference between male and female drivers. The mode for male drivers was an 8, with 19 (47.5%) males, and the mode for female drivers was a 6, with 20 (50%) females, indicating that the results across the board showed a much higher self-reporting of driving ability in males. Although this does not indicate actual driving ability, it does indicate how each sex sees themselves behind the wheel – very likely indicating who is more comfortable operating a motor vehicle.

The student provides the mode and median scores for the self-evaluation, but does not provide a good explanation of why the mode and median are appropriate or insightful for the study. His professor may have simply required that all three measures of central tendency be included in the paper.

The student explains that the mode and median scores may demonstrate comfort with a motor vehicle. However, the scores may also reflect respondent bias. The participants may "buy in" to a degree to the very stereotypes the student is researching. For example, a male respondent may accept the stereotypes and, therefore, self-report strong driving abilities.

The stereotypes of male and female drivers persist regardless of statistical evidence to the contrary of commonly held beliefs. Other statistical studies have shown male drivers are much more likely to be caught violating traffic laws, yet the typical stereotype of women drivers remains that women are unable to operate a motor vehicle competently. The findings of this study shows men are more likely to commit traffic violations and be caught in the process of doing so, yet women are more likely to have bad driving habits such as cellular phone use while driving, however it should be noted that in most states cellular phone use during operation of a motor vehicle is illegal. Overall, the males rated their driving abilities very highly, while women tended to rate their driving abilities dramatically lower, indicating possibly a lack of self-esteem in female drivers. Even how comfortable behind the driver's wheel could be a factor in driving ability, and female drivers in this survey indicate an extreme difference from male drivers in this regard.

The student provides strong interpretation of the data. However, descriptive statistics only show comparisons of the data, not the strength of relationships between the data. The student is overstating his results with "*very* highly," "*dramatically* lower," and "*extreme* difference."

According to these results, the theory that men are more likely to commit traffic violations is upheld, although it must be questioned whether men are more focused than women when driving due to very high rate of cell phone usage by women drivers. A very high percentage of traffic violations by men were speeding, rather than more egregious violations, and men also reported more extensive driving than women. With this information,

the theory that men are more dangerous drivers must be questioned, although the practice of charging higher premiums to male drivers at the same time seems practical due to the higher infraction rate and similar accident rate.

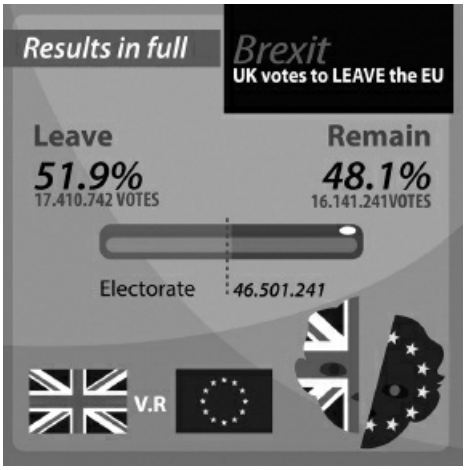
Remember our opening question about whether the research has a communication focus. Review the final paragraph of the paper and re-ask the question. The study is interesting, but what is the connection to communication studies? Conducting communication research requires careful attention to the question. Stephen and Dan have seen many a promising start to a research project wander and drift off course when the student did not keep their own discipline central to the study.

References

James, L. (2007). Principles of driving psychology. Message posted to www.drdrving.org/.
Tannert, C. (2009, May 4). Who are better drivers: Men or women?. Message posted to editorials.auto.msn.com.

17 Inferential Statistics

Chapter Outline



What Will I Learn About Inferential Statistics?

On June 23, 2016, voters in the United Kingdom voted on a referendum to leave the European Union (EU). 51.9% voted to leave the EU. In March 2017, the government invoked Article 50 of the Treaty on the European Union which started the process of leaving the EU. The UK is now on course to leave the EU in March of 2019. The "Brexit" situation (British exit) garnered international attention for numerous reasons. Brexit demonstrates political, social, cultural, economic, border, trade, and countless other tensions within the EU, and between the EU and the UK, yet the Brexit vote shows how political polling is very messy. Between October 2015 and the vote on June 23, 2016, support for leaving the EU ranged from 30% to 45%; while support for remaining in the EU ranged from 45% to 55%. On April 26, 2016, 6% of likely voters remained undecided, according to an ORB poll. On referendum night, it was anyone's guess what would happen; it was hard to predict the outcome.

Predicting the results of referendums and elections, like Brexit, is not an easy task. In 2000, the United States suffered an executive and judicial fiasco when news agencies prematurely "called" the state of Florida for Democratic presidential candidate Al Gore, when in fact Republican candidate George W. Bush claimed that he had won the state (debate still rages over who actually won Florida). In the end, the U.S. Supreme Court awarded Florida to Bush and Bush won the presidential election. In 2016, many political polls had Democratic candidate Hillary Clinton beating Republican Donald Trump by a sizeable vote and state count. An important note—in the United States electoral system, a candidate wins states, and is not elected by a majority of the people. However, on election night, Trump, not Clinton, won a majority of the states (57% of the electoral votes), while Clinton beat Trump in the popular vote (48.2% to 46.1%). Many pollsters were baffled by the result.

Political polling is based on the bell curve, sampling, error, and inferential statistics. While pollsters often get it "right," there are many examples of when the polls are simply nowhere close to the final result. Predicting who

will win a presidential election or how a population will vote on a referendum involves many variables. The job of a good pollster is to take as many variables into consideration when making prediction(s) as possible. In this chapter, we explore such questions and other aspects of inferential statistics. In the previous chapter, we defined statistics as a way of organizing, describing, and making inferences from data. Inferential statistics allow us to make conclusions (inferences) from a sample to a population.

What is Inferential Statistics?

In other chapters, we talked about the Central Limit Theorem and how you can make inferences or estimations about a population from your sample. Don't worry, we will talk more about this process throughout the chapter. The process of inference is the key to inferential statistics. Through the process of inferential statistics, you are able to statistically test what you think you know about the population based on your sample. Inferential statistics involves two main "families" that you can use: tests of difference and tests of relationship and/or prediction. We will describe each family and explain how you can conduct various tests. The second section of the chapter is a description of tests of difference, one group of inferential statistics.

Tests of Mean Differences (*t*-Tests, ANOVAs, and Chi-Square Tests)

If you are interested in comparing differences between men and women on the amount of self-disclosure in an intimate relationship using a Likert scale, this would be a test of difference (a *t*-test). If you want to compare differences between freshmen, sophomores, juniors, and seniors at your school on communication apprehension (CA) interval data, this would be a test of difference (a one-way ANOVA). If you are interested in analyzing how FOX, CNN, and MSNBC cover the presidential debates, this would be a test of difference (a Chi-Square test). Each of these proposed studies have numerous differences between the statistics you would use. Let's discuss the properties of each, how to calculate each statistic, and how they differ.

t-Test

A *t*-test is a multipurpose statistic used to compare two group means. With a *t*-test, your dependent variable must be continuous (interval or ratio-level data) and the independent variable, which is called the grouping variable, must be a nominal or ordinal variable. *t*-tests can be used in regression analyses, but are most often associated with testing differences between two group means. For example, you could use a *t*-test to explore whether males or females have higher GPAs on your campus, whether Americans or Japanese express more fear of the film *The Exorcist* (we could measure fear by measuring heart rates during the film), whether winter temperatures are colder on average in January in Finland or Canada, and whether your understanding of research methods improved from the start to the end of your class. *t*-tests can do all of this. There are two kinds of *t*-tests: independent samples *t*-tests and dependent samples *t*-tests. An independent samples *t*-test compares the means of two groups that are not the same (e.g., male and female GPA). A dependent samples or paired samples *t*-test is used when you are comparing the means of two groups that are matched in some way, such as when someone takes a test at the start of the semester and then the same test at the end of the semester, and you compare the results. You should know some basic principles of the *t*-test.

Principles of a t-Test

1. The dependent variable must be an interval or ratio-level variable.
2. The independent variable must be nominal or ordinal-level variables.
3. The dependent variable should be normally distributed, meaning there should not be a high skewness or kurtosis.
4. The larger the sample, the less likely that the difference between the two means analyzed is created by sampling error. We discussed sampling error quite a bit in Chapter 15.
5. The further apart the means, the less likely that the difference was created by sampling error.
6. The more homogeneous the sample, the less likely that the difference between the two means was created by sampling error.

7. *t*-tests evaluate the extent to which data distributions do not overlap. Overlap is smaller to the extent that the difference between means of two distributions is large and/or the SDs are small.

Dependent Samples t-Test

The purpose of a dependent samples *t*-test is to compare the mean score at one point to the mean score at a second point. For example, Stephen used to give his students in Statistics 101 the final exam on the first day of class and then the same exam during the final exam period. He would compare their scores from the first day to the last day to see how each student's scores differed. This pre-test and post-test format is the essence of a dependent samples *t*-test. Stephen was able to compare individual results and the class average from the pre-test to the final test. He hoped, of course, that the students improved their knowledge of statistics.

Conducting a dependent samples *t*-test is relatively easy in SPSS, one of the most used, and easiest to use, statistical software programs. In one study, Stephen collected data among Muslim immigrants in France in 2006 and again in 2015 regarding their tendency to approach and avoid arguments. The same individuals filled out Infante and Rancer's (1982) 20-item Argumentativeness Scale (a Likert scale). Stephen was interested in whether immigrants had a change in argumentativeness levels as they have adapted to life in France. His study called for a dependent samples *t*-test (the grouping variable is the same person with two different means). To conduct the test, SPSS has a few simple steps.

Steps to Conducting a Dependent Samples t-Test in SPSS

1. Go to "Analyze" and choose "Compare Means."
2. Within "Choose Means" select "Paired-Samples *t*-test."
3. Once you click on "Paired-Samples t-test" a new box will open. You will see the following buttons: "Options," "Bootstrap," "Reset," "Paste," "Cancel," and "OK."
4. At this point in your studies you do not need to be concerned with "Options" and "Bootstrap." "Reset" will reset everything you have done. "Paste" will allow you to paste things in. "Cancel" closes the box and "OK" runs the *t*-test.
5. Scroll down your list of variables to select the pair of variables you want to compare.
6. You need to choose the first one and then hold down the Ctrl key on your keyboard and then select the second variable you want.
7. Then click on the arrow to transfer this pair over for analysis. You can conduct more than one analysis at a time, just repeat this process.
8. Then press the "OK" button and your analysis will be conducted.

In Stephen's data on Muslim immigrants, he selected his two variables and pressed "OK." The following three outputs (in Figures 17.1 and 17.2) show the results of the dependent samples *t*-tests for a Muslim immigrant's tendency to approach argumentativeness:

Figure 17.1 (Output 1) Paired Samples Statistics

		Mean	*N*	Std. Deviation	Std. Error Mean
Pair 1	argapproach	14.5606	330	3.22664	.17762
	argapproach 2015	22.8212	330	4.03497	.22212

Figure 17.2 (Output 2) Paired Samples Correlations

		N	Correlation	Sig.
Pair 1	argapproach & argapproach 2015	330	.131	.017

Figure 17.3 (Output 3) Paired Samples Test

		Paired Differences						
				95% Confidence Interval of the Difference				
		Mean	Std. Deviation	Lower	Upper	*t*	*df*	Sig. (2-tailed)
Pair 1	argapproach - argapproach 2015	-8.26061	4.82382	-8.78298	-7.73823	-31.108	329	.000

The first output, Figure 17.1 shows the means, standard deviations, and standard error of the mean in 2006 (argapproach) and in 2015 (argapproach 2015). The second output, Figure 17.2 shows the correlation between the pre- and the post-test. In this case, the tendency to approach argumentativeness is highly correlated in 2006 and 2015 (r = .13, p = .017). We will talk more about correlations in a few short pages. The third output, Figure 17.3, is the important one, since it shows if a significant difference exists between the two means. In this case, a significant difference does exist in the tendency to approach argumentativeness in 2006 and 2015. The report of the results of the test is written up like this:

> On average, Muslim immigrants' tendency to approach arguments after moving to France in 2006 (M = 14.56; SD = 3.23) significantly increased by 2015 (M = 22.82; SD = 4.03), $t(329) = -31.11$, $p < .0001$, r = .13.

Let's break down the statement:

1. "On average, Muslim immigrants' tendency to approach arguments after moving to France in 2006 (M= 14.56; SD = 3.23) significantly increased by 2015 (M= 22.82; SD = 4.03)," shows the reader the mean differences between 2006 and 2015.
2. "$t(329) = -31.11$, $p < .0001$, r = .13" represents the fact that "$t = -31.11$" is your t-value (rounded up from −31.108). Your t-value is an arbitrary number that tells a reader the chances that two means are different from one another. We need more information to determine whether or not the t-value is significant.
3. "(329)" is the degrees of freedom in the study. Degrees of freedom or *df* is the number of independent values in any given calculation minus the number of estimated parameters. Basically, the *df* is the number of values that can vary in a calculation. The *df* formula and the amount it varies is represented by $n - 1$. In this case, the *df* equals 330 (the sample size) minus 1 or 329.
4. "$p < .0001$" is the alpha-level significance for the t-test. The p-level tells you if the test is significant (remember that, to be significant, the p must be less than .05) and if you should reject the null. In this case, there is a significant difference, so the two means are significantly different from one another and we should reject the null.
5. "r= .131" is the correlation between the value at 2006 and 2015. We will talk more about this shortly.

Independent Samples t-Test

Independent samples t-tests are used when you are comparing the means of two groups that are not the same. For example, you could compare the amount of self-disclosure between men and women in an intimate relationship. Like a dependent samples t-test, conducting an independent samples t-test is relatively easy in SPSS. Part of Stephen's research from 2006 to 2015 involved collecting data among self-identified Christians in France. The participants completed the argumentativeness scale (Infante & Rancer, 1982). Let's compare how likely Muslim immigrants in France approach argumentativeness versus self-identified Christians in France in 2015. This analysis calls for an independent samples t-test, as the grouping variable is two different groups (Muslims and Christians) with mean scores on argumentativeness. Conducting the test involves just a few simple steps in SPSS.[1]

Steps to Conducting an Independent Samples *t*-Test in SPSS

1. Go to "Analyze" and choose "Compare Means."
2. Within "Choose Means," select "Independent Samples t-test."

3. Once you click on "Independent-Samples *t*-test," a new box will open. You will see the following buttons: "Options," "Bootstrap," "Reset," "Paste," "Cancel," and "OK."
4. Just like with the dependent samples *t*-test, choose your dependent variable. In this case, you only choose one and not two.
5. Highlight it and click the arrow to move it over to the "Test Variable(s)" box. In Stephen's analysis of argumentativeness, this variable is named "argapproach 2015." You then need to choose your grouping variable, this is your independent variable. Stephen wanted to compare Muslims and Christians, "group."
6. You need to tell the computer which groups to analyze (Define groups), Stephen coded Christians as 0 and Muslims as 1 in his SPSS file.
7. As with the dependent samples *t*-test, you can run one or multiple tests at once.
8. Press the "OK" button and your analysis will be conducted.

The following two outputs, Figures 17.4 and 17.5, show the results of the independent samples *t*-tests for Christian and Muslim argumentativeness in 2015:

Figure 17.4 Group Statistics

	immigrantnot	*N*	Mean	Std. Deviation	Std. Error Mean
argapproach 2015	Christian	237	45.1688	5.92154	.38465
	Muslims	330	22.8212	4.03497	.22212

Figure 17.5 Independent Samples Test

		Levene's Test for Equality of Variances		*t*-Test for Equality of Means						
		F	Sig.	*t*	*df*	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
arg-approach 2015	Equal variances assumed	5.398	.021	53.434	565	.000	22.34756	.41823	21.52610	23.16903
	Equal variances not assumed			50.313	388.637	.000	22.34756	.44417	21.47428	23.22084

Figure 17.4 shows how many Christians and Muslims are in the sample, as well as the mean, standard deviation, and standard error of willingness to approach argument for each group. Figure 17.5 is the independent samples test table from SPSS. First, you may notice two *t*-values and something called "Levene's Test for Equality." Levene's test explores whether the variances between the two groups are equal. If the Levene's test is non-significant, then equal variances between the two groups can be assumed, and you report the numbers on the top row of the table. If Levene's test is significant, then we can assume that equal variance between groups cannot be assumed. Thus, our *t*-test has to be statistically altered, this is most evident in the *df,* and sometimes in the significance (*p*) values. In such cases, you will report the values on the bottom, "Equal variances not assumed." In the case of this particular *t*-test, Levene's test is significant and equal variances cannot be assumed, so we report the values on the bottom row. The results are reported below:

> Christians (M = 45.17; SD = 5.92) have significantly higher levels of argumentativeness than Muslims (M = 22.82; SD = 4.03), $t(388.64) = 50.31$, $p < .0001$.

t-tests are widely used in communication research. Ivanov, Parker, and Pfau (2012) use dependent samples *t*-tests to explore the effects of attitudinal attacks on attitude change. Ivanov et al. find that some inoculation messages

could generate resistance to persuasive messages, while other messages would not. Yun, Constantini, and Billingsley (2012) use independent samples t-tests to check the effects of a public speaking course on writing skills. Yun et al. find that students who take a public speaking course have better writing structure and syntax.

In the 2016 election, commentators talked a lot about how women were more likely to have a favorable opinion of Hillary Clinton, while men were more likely to have a favorable opinion of Donald Trump. The commentators were more than likely getting this information from a *t*-test or a more advanced statistical test that was operating like a *t*-test. In essence, what they were doing was asking likely voters how they felt about the candidates and their likelihood of voting for each candidate. This kind of information is important for candidates and their teams as it can help them know how to tailor their messages and campaigns.

One-Way Analysis of Variance (ANOVA)

A one-way analysis of variance (ANOVA) has many characteristics similar to a t-test. The test is a way to compare more than two groups (such as ethnicity, religious identification, level in school) on an interval or ratio-level variable. For example, you could use an ANOVA to examine 1) how individuals, based on their academic year at your school (e.g., freshman, sophomore, junior, and senior) differ on job satisfaction, 2) how the number of years spent working for a company potentially affect an individual's willingness to dissent about organizational decisions, and 3) how people from different nations (more than two) differ on their tendency to approach arguments. Each of these questions can be addressed by ANOVA. Some basic principles of an ANOVA are similar to the *t*-test. In the case of an ANOVA, the result is the *F*-test.

Principles of a One-Way ANOVA

1. The dependent variable must be an interval or ratio-level variable.
2. The independent variables must be nominal or ordinal-level variables.
3. The dependent variable should be normally distributed; there should not be high levels of skewness or kurtosis.
4. The larger the sample, the less likely that the difference between the means is created by sampling error.
5. The further apart the means, the less likely that the difference was created by sampling error.
6. The more homogeneous the sample, the less likely that the difference between the means was created by sampling error.
7. ANOVAs evaluate the extent to which multiple distributions do not overlap. Overlap is smaller to the extent that the difference between means of multiple distributions are large and/or the SDs are small.

While calculating the *F* in an ANOVA is a complex process, we thankfully have programs like SPSS to help us. Conducting an ANOVA is an easy process. For this example, we are going to return to the data from 2006 to 2015. Specifically, we are going to compare argumentativeness among Muslims based on level of education. SPSS involves a few simple steps.

Steps to Conducting a One-Way ANOVA in SPSS

1. Go to "Analyze" and choose "Compare Means."
2. Within "Choose Means" select "One-Way ANOVA."
3. Once you click on "One-Way ANOVA" a new box will open. You will see the following buttons: "Contrasts," "Post Hoc," "Options," "Bootstrap," "OK," "Paste," "Reset," "Cancel," and "Help."
4. Choose your dependent variable(s), the one(s) you want to analyze. Highlight it and click the arrow to move it over to the "Dependent List" box. You can analyze multiple variables if you want, but let's focus on one for now. In Stephen's analysis of argumentativeness, he named his variable, "argapproach." So, click on argapproach and then click the arrow to move it over to the "Dependent List."

5. As we are interested in how people with different levels of education differ in argapproach, our factor (independent variable) is "level of education." So, click on "level of education" and move it to "Factor."
6. Click on "Options," and then click the "Descriptive" and the "Means plot boxes." The Descriptive box will provide you with descriptive statistics, and Means plot will visually show you your data. Then press "Continue."
7. Click "Post Hoc," choose "Tukey," "Scheffé," and "Games-Howell," click "Continue," and then "OK." The ANOVA will then run. See Figures 17.12–17.15 on pages 260–263.
8. To compute the η^2, click on "Analyze," "Compare Means," and then "Means." Highlight "argapproach," and click the arrow to move it to the dependent list. Highlight "highest education level," and click the arrow to move it to the independent list. Click "Options" and then click "Anova table and Eta". Click "Continue". Click "OK."

Figure 17.6 Descriptives

argapproach

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
elementary school	20	13.7500	2.12442	.47503	12.7557	14.7443	10.00	16.00
middle school	40	14.4250	2.89019	.45698	13.5007	15.3493	10.00	22.00
high school	178	15.1910	3.76086	.28189	14.6347	15.7473	10.00	23.00
2-year college degree	90	13.7000	1.89885	.20016	13.3023	14.0977	10.00	17.00
4-year degree (BA)	4	11.7500	2.06155	1.03078	8.4696	15.0304	10.00	14.00
Total	332	14.5663	3.21981	.17671	14.2186	14.9139	10.00	23.00

Figure 17.7 ANOVA

argapproach

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	182.862	4	45.715	4.602	.001
Within Groups	3248.681	327	9.935		
Total	3431.542	331			

In the first output, Figure 17.6, you have the means, standard deviations, errors, and sample sizes for each educational level. Figure 17.7 is the ANOVA output. In the ANOVA output, you have the F value (4.60), numerator *df* (4), denominator *df* (331), SS_b (45.72), SS_W (9.94), and significance level *p* (.001). You will need to compute the η^2 (Eta-squared), or effect size of the ANOVA. In inferential statistics, the effect size measures the strength of relationship between two variables. The statistic provides a standard metric for comparison across studies.

Figure 17.9 is a line plot of the data. While outputs tell us a lot, what is missing is a direct comparison between each education level. We may see a clear increase and decrease, but is it significant? The picture would lead us to think that we have significance, but we can't be sure. This is where the post-hoc comparisons come in (see Figure 17.8).

Post-hoc comparisons are follow-up tests to determine whether all groups or certain pairs of group means are significantly different from one another. You can choose from numerous post-hocs. The most commonly used ones are Tukey's test and the Scheffé test. Tukey's test should be used when you have an equal number of participants or items in your independent categories or groups. The Scheffé test can be used when you have an

unequal number of participants or items in your independent categories or groups. The Scheffé test is more conservative, which means that the criteria for statistical significance is stricter than Tukey's test. Both the Tukey's test and the Scheffé test assume equal variances. If equal variances are not assumed, a good option is the Games-Howell test. This post hoc operates much like the other post hocs, but does not assume equal variances. In the case of this particular ANOVA, if you look at Figure 17.12, you will see each group has a different number of participants. Thus, equal variances are not assumed. Therefore, we look to the Games-Howell test.

Figure 17.8 Multiple Comparisons

Dependent Variable: argapproach

	(I) highest educational level	(J) highest educational level	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
Tukey HSD	elementary school	middle school	-.67500	.86320	.936	-3.0428	1.6928
		high school	-1.44101	.74334	.299	-3.4800	.5980
		2-year college degree	.05000	.77918	1.000	-2.0873	2.1873
		4-year degree (BA)	2.00000	1.72640	.775	-2.7356	6.7356
	middle school	elementary school	.67500	.86320	.936	-1.6928	3.0428
		high school	-.76601	.55153	.635	-2.2789	.7469
		2-year college degree	.72500	.59896	.745	-.9180	2.3680
		4-year degree (BA)	2.67500	1.65290	.487	-1.8590	7.2090
	high school	elementary school	1.44101	.74334	.299	-.5980	3.4800
		middle school	.76601	.55153	.635	-.7469	2.2789
		2-year college degree	1.49101*	.40768	.003	.3727	2.6093
		4-year degree (BA)	3.44101	1.59359	.198	-.9303	7.8123
	2-year college degree	elementary school	-.05000	.77918	1.000	-2.1873	2.0873
		middle school	-.72500	.59896	.745	-2.3680	.9180
		high school	-1.49101*	.40768	.003	-2.6093	-.3727
		4-year degree (BA)	1.95000	1.61062	.745	-2.4680	6.3680
	4-year degree (BA)	elementary school	-2.00000	1.72640	.775	-6.7356	2.7356
		middle school	-2.67500	1.65290	.487	-7.2090	1.8590
		high school	-3.44101	1.59359	.198	-7.8123	.9303
		2-year college degree	-1.95000	1.61062	.745	-6.3680	2.4680
Scheffé	elementary school	middle school	-.67500	.86320	.962	-3.3491	1.9991
		high school	-1.44101	.74334	.441	-3.7438	.8618
		2-year college degree	.05000	.77918	1.000	-2.3638	2.4638
		4-year degree (BA)	2.00000	1.72640	.854	-3.3482	7.3482
	middle school	elementary school	.67500	.86320	.962	-1.9991	3.3491
		high school	-.76601	.55153	.749	-2.4746	.9426
		2-year college degree	.72500	.59896	.833	-1.1305	2.5805
		4-year degree (A)	2.67500	1.65290	.624	-2.4455	7.7955
	high school	elementary school	1.44101	.74334	.441	-.8618	3.7438
		middle school	.76601	.55153	.749	-.9426	2.4746
		2-year college degree	1.49101*	.40768	.011	.2281	2.7540
		4-year degree (BA)	3.44101	1.59359	.326	-1.4958	8.3778
	2-year college degree	elementary school	-.05000	.77918	1.000	-2.4638	2.3638
		middle school	-.72500	.59896	.833	-2.5805	1.1305
		high school	-1.49101*	.40768	.011	-2.7540	-.2281
		4-year degree (BA)	1.95000	1.61062	.832	-3.0395	6.9395
	4-year degree (BA)	elementary school	-2.00000	1.72640	.854	-7.3482	3.3482
		middle school	-2.67500	1.65290	.624	-7.7955	2.4455
		high school	-3.44101	1.59359	.326	-8.3778	1.4958
		2-year college degree	-1.95000	1.61062	.832	-6.9395	3.0395
Games-Howell	elementary school	middle school	-.67500	.65916	.843	-2.5407	1.1907
		high school	-1.44101	.55238	.091	-3.0309	.1489
		2-year college degree	.05000	.51548	1.000	-1.4589	1.5589
		4-year degree (BA)	2.00000	1.13497	.487	-1.2825	6.8250
	middle school	elementary school	.67500	.65916	.843	-1.1907	2.5407
		high school	-.76601	.53693	.613	-2.2684	.7364
		2-year college degree	.72500	.49889	.597	-.6825	2.1325
		4-year degree (BA)	2.67500	1.12753	.277	-.2.1692	7.5192
	high school	elementary school	1.44101	.55238	.091	-.1489	3.0309
		middle school	.76601	.53693	.613	-.7364	2.2684
		2-year college degree	1.49101*	.34572	.000	.5415	2.4406
		4-year degree (BA)	3.44101	1.06863	.152	-1.7103	8.5923
	2-year college degree	elementary school	-.05000	.51548	1.000	-1.5589	1.4589
		middle school	-.72500	.49889	.597	-2.1325	.6825
		high school	-1.49101*	.34572	.000	-2.4406	-.5415
		4-year degree (BA)	1.95000	1.05003	.472	-3.3426	7.2426
	4-year degree (BA)	elementary school	-2.00000	1.13497	.487	-6.8250	2.8250
		middle school	-2.67500	1.12753	.277	-7.5192	2.1692
		high school	-3.44101	1.06863	.152	-8.5923	1.7103
		2-year college degree	-1.95000	1.05003	.472	-7.2426	3.3426

*The mean difference is significant at the 0.05 level.

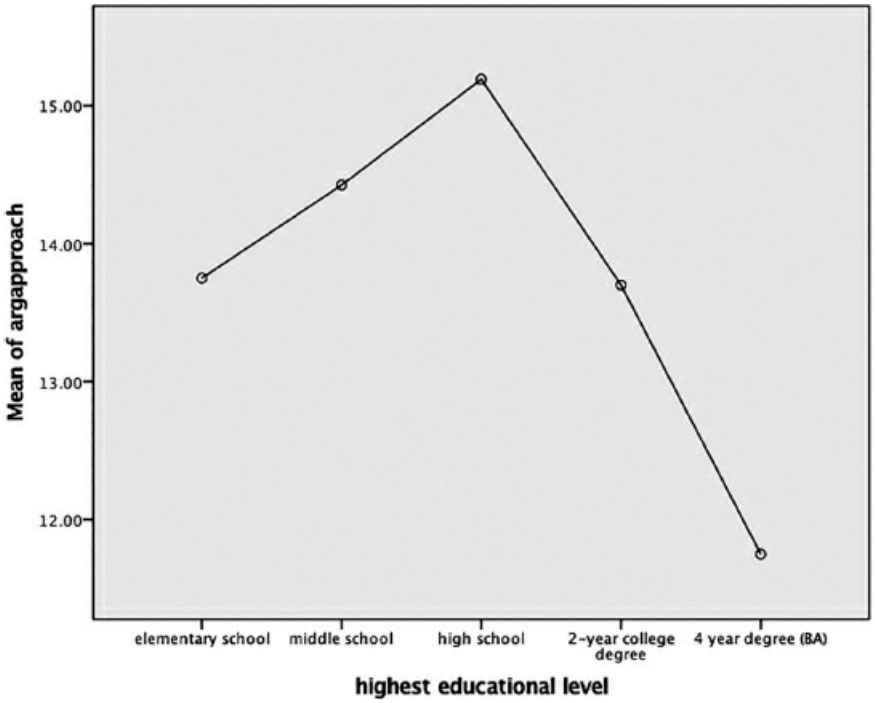


Figure 17.9 Educational Level and Mean of Tendency to Approach Argument

Figure 17.8 (Multiple Comparisons) shows direct mean comparisons between each educational level on argumentativeness. Based on the Games-Howell comparison, you can see that individuals with a high-school degree scored 1.49 higher on argumentativeness than individuals with a two-year college degree. Inversely, those with a two-year degree scored 1.49 less on argumentativeness than individuals with only a high-school degree. The (*) in the Figure means that the difference is statistically significant ($p < .05$) between the two groups. These comparisons are helpful in better understanding specific differences between groups. The write-up of the ANOVA results look like this:

> A one-way ANOVA was conducted using level of education as the independent variable and argumentativeness as the dependent variable. A significant difference was found: $F(4, 331) = 4.60$, $p < .001$, $\eta^2 = .04$. A Games Howell post-hoc comparison was conducted, which indicated that individuals with a high school degree scored higher on argumentativeness than those individuals with a two-year college degree.

The write-up has a few important points. "$F(4, 331)$" is showing the reader the different degrees of freedom in the study, 4 is the numerator *df*, and 331 is the denominator *df*. "4.60" is the *F*-value for the ANOVA, which we know is significant because of the *p*-value, "$p < .001$." The final element is "$\eta^2 = .04$." This is Eta-squared for the ANOVA. Eta-squared represents the effect size for the difference in the ANOVA test. An Eta-squared can range from 0 to 1. A small Eta-squared means no difference, while a large Eta-squared indicates a difference between the groups. A small effect size ranges from .01 to .05, a medium effect size ranges from .06 to .13, while a large effect size ranges at .14 and above. All in all, the ANOVA is a helpful method for exploring differences between more than two groups on a continuous variable.

> In the 2016 Brexit referendum, commentators talked a lot about educational divides and regional differences in how people would vote in the referendum. Both sides were competing for different geographic regions and for different educational groups. When the dust settled after the vote, there were clear regional differences in how people voted for or against Brexit. People in more urban areas, such as London, and also those in Scotland, strongly came out in favour of remaining in the EU. Those in more rural areas, and in Wales, came out in favour of Brexit. After the result was announced, analysts looked over the geographic differences and "how a person from one region was more likely than a person from another region to vote for Brexit," etc. Such commentary was based partially on ANOVA analysis.

Chi-Square

The third test of difference is not like the ANOVA or *t*-tests. Remember, ANOVAs and *t*-tests assume that the population you are generalizing to and the samples you are working with are normally distributed. These types of tests (and correlation and regression) are called parametric tests. A non-parametric test is used when you are unable to make assumptions about how data in the population are distributed, when your sample may not represent the population, and when the data you are working with is categorical (ordinal or nominal). A Chi-square is a non-parametric test used to compare the observed frequencies of a variable against the expected frequencies, to see if a statistical difference exists between the two. A basic principle underlying the Chi-square is that a sample will break down into equal groups. For example, if you have 250 dogs, and you divide them into five breeds, statistically you should expect to have 50 of each breed. However, rarely does a sample break down into equal groups. What we observe can be rather different than what is statistically expected. A Chi-square has some required elements.

Principles of a Chi-Square

1. All of the variables under analysis must be nominal variables.
2. Larger samples are more representative of the population.

Let's look to the 2016 U.S. Presidential election. During the election, pollsters regularly asked men and women (nominal variable) whom they were going to vote for (a nominal variable). This is a classic question and could be analyzed using a Chi-square. If a pollster samples 100 people, and asks them if they were going to vote for Trump or Clinton, statistically each candidate should get 50 votes. A perfect distribution does not happen very often. A Chi-square can help us. To conduct this particular Chi-square using SPSS is easy (look to Figure 17.18).

Steps to Conducting a Chi-Square in SPSS

1. Go to "Analyze," choose "Descriptive Statistics," and then choose "Crosstabs."
2. Once there, you will find a box with: "Exact," "Statistics," "Cells," "Format," "Bootstrap," "Row(s)," "Column(s)," "Layer 1 of 1," "OK," "Paste," "Reset," "Cancel," and "Help."
3. If we are interested in how the sexes differ in their preference for a political candidate, our two variables are sex and presidential preference. In a simple Chi-square, we are comparing how groups (rows) compare on a particular variable (column). In this case, you will click on "sex" and move it over to "Row(s)" and move "prespreference" (what we named presidential preference) over to "Column(s)."
4. You need to tell SPSS to run a Chi-square. Click on "Statistics" and click the box for "Chi-square" and then click "Continue."
5. Click "Cells" and make sure "Observed" and "Expected" are clicked, and press "Continue." Then press "OK."
6. You should get something like what you see in Figures 17.10–17.12:

Figure 17.10 Case Processing Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	*N*	Percent	*N*	Percent
sex * prespreference	100	100,0%	0	0,0%	100	100,0%

Figure 17.11 Crosstabulation

- sex * prespreference Crosstabulation

			Prespreference		Total
			Clinton	Trump	
sex	male	Count	20	30	50
		Expected Count	26,5	23,5	50,0
	female	Count	33	17	50
		Expected Count	26,5	23,5	50,0
Total		Count	53	47	100
		Expected Count	53,0	47,0	100,0

Figure 17.12 Chi-Square Tests

Chi-Square Tests

	Value	*df*	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	6.784[a]	1	.009		
Continuity Correction[b]	5.781	1	.016		
Likelihood Ratio	6.865	1	.009		
Fisher's Exact Test				.016	.008
Linear-by-Linear Association	6.717	1	.010		
N of Valid Cases	100				

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 23.50.
b. Computed only for a 2x2 table.

We can see many things when we look at these figures. First, Figure 17.10 shows that all 100 cases (people) answered the question. Figure 17.11 shows how many of each sex preferred each candidate. You can see that more men preferred Trump, while more women preferred Clinton. The count is observed in the data, while the expected count is the statistical expectation for each sex and their presidential preference when the null hypothesis is true. Figure 17.12 is the result of the Chi-square test. The Chi-square result is: $\chi^2 = 6.784$, $p = .009$, which is indeed significant. The Chi-square shows a significant difference between what was expected and what was observed. The result of the test is written as:

> The results show a significant association between a voter's sex and their preference for president, χ^2 (1) = 6.784, p = .009. Based on the results, men prefer Donald Trump, while women prefer Hillary Clinton.

Chi-squares are regularly used in communication research, and in business, advertising and marketing. Steimel (2012) uses Chi-square to explore memorable messages that volunteers receive from the organizations they serve and how these messages relate to the volunteer experience. In advertising and marketing, Chi-square is prominent in taste-testing. We have all heard that "two out of three people prefer" one beverage, or toothpaste, or insurance company. If you stop and think about it, you will realize that this is a simple Chi-square analysis. One of the activities at the end of this chapter is to conduct a taste test and analyze the data using Chi-square.

> In the 2016 U.S. Presidential election, Americans often heard news reports about how men were more likely to vote for Trump over Clinton. A simple Chi-square analysis could produce such a result.

Tests of Relationship and Prediction (Correlation and Simple Regression)

While some statistical tests are helpful at comparing data, other tests can help us understand relationships between variables and predict how variables will affect other variables.

Correlation

When Stephen was nine, he wanted to play tennis with his friends. His mom got him a tennis racquet and he went out to play. He had never played before and was horrible. He came home and put the racquet away. His mom told him that the more he practiced, the better he would be. He picked up the racquet and kept practicing, and today he is a pretty good player (but Federer and Nadal have nothing to worry about). Stephen's tennis ability and the amount he practices can be related in three ways: 1) positively related, which means that the more he

practiced, the better he got; 2) negatively related, which means that the more he practiced, the worse he got; or, 3) not related at all, meaning that as he practiced, his playing abilities remained the same. These three relationships are the fundamental principles of a correlation.

A correlation is a statistical measure of the degree to which two or more variables (interval or ratio) in a sample are related to one another. The statistical term for correlation is Pearson product-moment correlation coefficient, represented by (*r*). Correlations range from −1.00 to +1.00. A 0.00 correlation represents no relationship between the variables. A correlation (*r*) of .00 to .25 is a weak correlation, .26 to .50 is a moderate correlation, while .51 and above is a strong correlation. Correlations of −.55 and +.55 have the same magnitude, just different directions (one is positive and the other is negative). We will talk in a moment about direction of correlations.

You can find four types of correlations (relationships): positive, negative, curvilinear, and no relationship. In the following paragraphs, we provide examples of each by focusing on just two variables for each relationship. Please keep in mind that, with correlations, you can correlate multiple variables with one another at the same time; for simplicity, however, we are focusing on just two variables at a time.

A positive correlation occurs when both variables move in the same direction. As one variable increases in value, the other increases (+/+), and as one variable decreases in value, the other decreases (−/−). Figure 17.16 provides an example write-up of a positive correlation (r = .107, p < .001). Figure 17.13 shows that the more someone is willing to express articulated dissent in an organization, the more they are willing to express displaced dissent regarding an organization (Kassing, 1998).

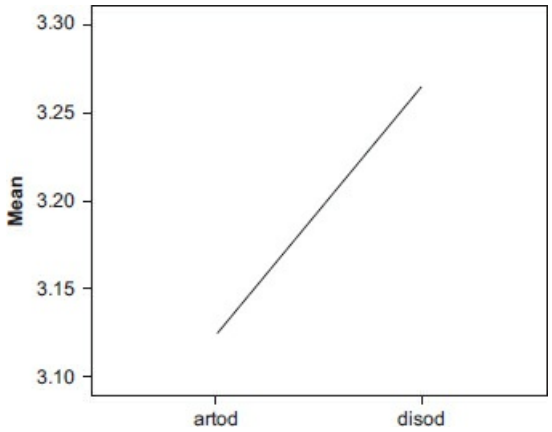


Figure 17.13 Correlation Between Articulated and Displaced Dissent

In Figure 17.14, you can see a negative correlation. A negative relationship occurs when one variable increases in value and the other decreases (+/−), and when one variable decreases in value and the other increases (−/+). In this correlation, the more someone is willing to approach an argument, the less willing they are to avoid an argument (r = −.35, p < .001).

A curvilinear relationship is positive or negative when it begins, but then switches directions. Take, for example, the severity of an illness and medication dosage. The more medication you take, the better you generally feel (+/+). Eventually, however, you can take too much medication and your body may start to reject it and get sick from the medication (+/−). Figure 17.15 is an example of this kind of relationship.

The final kind of relationship is no relationship. Sometimes variables simply are not related to each other. Argumentativeness, for example, is more than likely not related to how much a person likes country music. This relationship should more than likely be non-existent, so we are not even going to try to create a figure for it. ☺

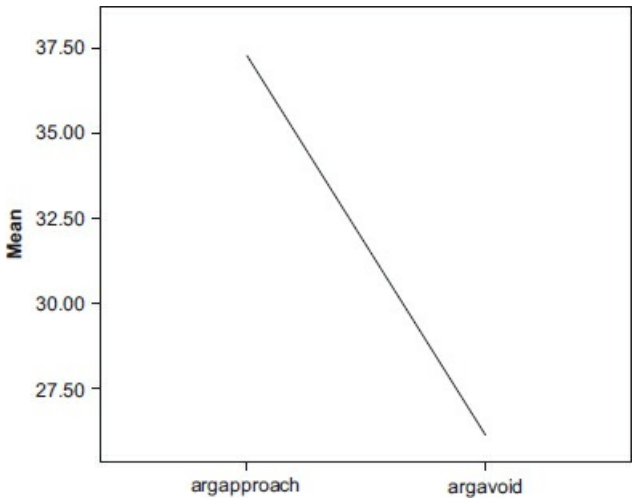


Figure 17.14 Correlation Between Approach and Avoid Argumentativeness

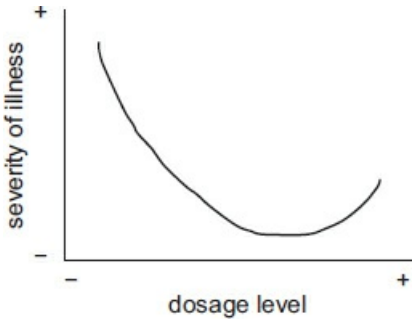


Figure 17.15 Curvilinear Relationship

Principles of Correlations

1. The variables you are correlating must be interval or ratio-level variables.
2. Work for a large sample, as larger samples are more representative of the population.
3. Try to have fairly similar sample sizes for each of your variables. If one variable has 200 responses and the other has 50, this can lead to sampling error issues.
4. A correlation does not mean that one variable *causes* another variable to change. Correlations do not equal causality!
5. Correlations can be one- or two-tailed. If you have a directional hypothesis or research question, then you have an idea of the relationship between the variables, so you should explore that particular relationship (one-tailed). If your hypothesis or research question is non-directional, then you have less certainty of the relationship, and thus you would use a two-tailed correlation to explore the relationship.

Conducting the correlation analysis is actually one of the easiest tests in SPSS, compared to the other statistical tests. We are going to look at some data on organizational dissent—an individual's willingness to voice opposition or contrary opinions in an organization (Kassing, 1998). Stephen and his research team collected data on organizational dissent in China among 282 organizational members in various Chinese cities. Scholars have identified three kinds of organizational dissent. Two happen in organizations—articulated and latent dissent. Articulated dissent is dissent that you voice to individuals above you in the hierarchy (like your boss). Latent dissent is dissent that you voice to your peers. Research in the U.S. has shown a negative correlation between these two variables. Thus, conducting a study on a U.S. sample calls for a one-tailed correlation. However, our example sample is from China, and we have no real idea how dissent is conceptualized there. Therefore, running a two-tailed exploratory test is appropriate. To see how these two kinds of dissent are correlated is a simple process.

Steps to Conducting a Correlation in SPSS

1. Go to "Analyze," and choose "Correlate," and then choose "Bivariate."
2. You will see the following buttons: "Options," "Bootstrap," "Pearson," "Kendall's tau-b," "Spearman," "Two-tailed," "One-tailed," "Flag significant correlations," "OK," "Paste," "Reset," "Cancel," and "Help." For now, you do not need to worry about many of these options.[2]
3. To run the correlation, highlight each variable you want and move them over to the "Variables" list (you can double-click on them if you want), in this case we want: articulated and latent.
4. Click on "Options," and choose "Means and Standard Deviations," and then click "OK."
5. Click "OK" on the main "Correlation" screen and you will get your figures (see Figures 17.16 and 17.17).

Figure 17.16 shows the means, standard deviations, and number of individuals who completed each of your variables. You can see the means and standard deviations for articulated dissent (articulated) (M = 3.42; SD= .50) and for latent dissent (latent) (M = 2.69; SD= .759). Figure 17.17 is the correlation output. This figure shows how articulated and latent dissent are positively correlated (r = .67). Next to the correlation, you will notice **. If you look at the bottom of the output, you will see a note a saying that "** Correlation is significant at the 0.01 level (2-tailed)." We can interpret this correlation as:

> There was a significant positive correlation between articulated and latent dissent (r = .67, p < .001).

Figure 17.16 Descriptive Statistics

	Mean	Std. Deviation	*N*
articulated	3.4178	.49578	282
latent	2.6879	.58954	282

Figure 17.17 Correlations

		articulated	latent
articulated	Pearson Correlation	1	.665**
	Sig. (2-tailed)		.000
	N	282	282
latent	Pearson Correlation	.665**	1
	Sig. (2-tailed)	.000	
	N	282	282

** Correlation is significant at the 0.01 level (2-tailed).

Simple Regression

The second relational statistic takes correlation a step further and tests how a variable predicts another variable. Regression predicts a dependent variable from one or multiple independent variables. Regression analysis is all around us. If any of you have tried to buy a car and gone into negotiations, you have probably heard about a credit score. This term puts fear into the hearts of some Americans, but it is basically a regressions score. The score tells creditors how likely you are to pay back debt. The score is based on various indicators, including your previous debt, payment history, number of bills and/or debts, and your demographic information. Creditors, like a car dealer or mortgage company, will look at your score and make a risk-analysis about you and the item you want to buy.

In their analysis of 16- to 24-year-olds, Bakker and de Vresse (2011) find that a variety of Internet uses are positively related to numerous kinds of political participation. For example, online social networks and online forum use are positively related to political participation. During the march toward the Brexit vote, both sides

of this debate used social networks and social media to reach out to potential voters.

If you are doing a regression, you are basically plotting out a line of best fit, or a line to fit a model that best predicts the dependent variable based on your independent variable(s). The equation for this line of best fit (the regression equation) is: $Y = a + bX + \varepsilon$. Y is the dependent variable (what you are trying to predict). Alpha or *a* is the value of *Y* when the value of *X* equals 0. Beta or *b* is the slope of the regression line, which is how much *Y* changes for each unit change in *X*. *X* is the value of the independent variable (what is predicting *Y*). ε is the amount of error; for simplicity, we assume that ε is 0 in regression analyses.

Let's take an example of how to predict argumentativeness related to levels of religiousness. Y equals the level of argumentativeness. The alpha (*a*) equals an individual's average level of argumentativeness, let's say 25. The beta (*b*) is the impact on *Y* for each increase in an individual's level of religiousness; let's say +5 on Infante and Rancer's (1982) argumentativeness scale. *X* is an individual's level of religiousness. For every three levels of religiousness (*X* = 3), *Y* = 25 + (5)(3) = 25 + 15 = an argumentativeness level of 40. Other variables may also predict argumentativeness (ε), but this regression only predicts the effect of religiousness on argumentativeness.

As with a correlation, visually representing the data is helpful. You can do this with a scat-terplot. Here are examples of scatterplots showing one variable (*X*) predicting *Y*. In (a) you can see a positive correlation, which can represent *X* having a strong positive effect on *Y*. In (*b*), you can see a slightly negative correlation, meaning *X* has a slight negative effect on *Y*. In (c), we see a perfect negative correlation, so *X* predicts *Y*. In (d) there is no real relationship between *X* and *Y*, which means *X* does not predict *Y*.

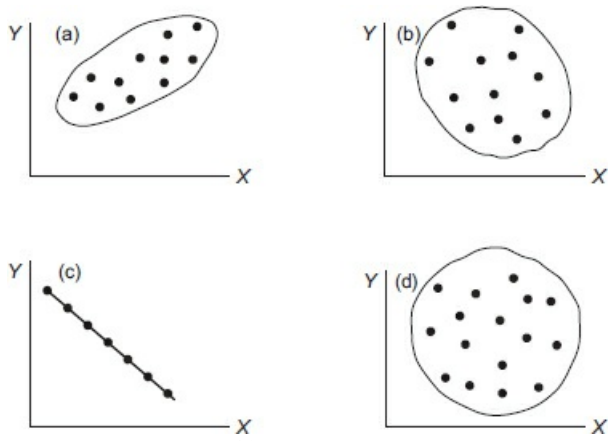


Figure 17.18

Principles of Simple Linear Regression

1. The dependent variable (what you are predicting) needs to be an interval or ratio variable.
2. The independent variables will normally be interval or ratio variables. In more advanced kinds of regression, you can use independent variables that are nominal or ordinal. We will not spend time on this right now, as using these kinds of variables can get rather complicated.
3. The sample you collect to conduct a regression should be as representative as possible of the population.
4. The variables should be normally distributed; there should not be high levels of skew or kurtosis.
5. Strive for as large a sample as possible to best represent the population.

Running a regression analysis, like many statistical tests, is not a complex procedure if you know your dependent and independent variables. Returning to the data Stephen and his team collected in China, let's look at how a person's perception of workplace freedom of speech predicts their willingness to voice organizational dissent to a boss (articulated dissent).

Steps to Conducting a Simple Linear Regression in SPSS

1. Go to "Analyze," then choose "Regression," then choose "Linear."
2. Once in the "Linear" regression box, you will see the following commands: "Statistics," "Plots," "Save," "Options," "Bootstrap," "Previous," "Next," "Enter," "Reset," "Paste," "Cancel," and "OK."
3. Choose your "Dependent variable" and "Independent variable(s)." In this example, we are analyzing data that looks at how much workplace freedom of speech predicts willingness to voice organizational dissent to a supervisor (articulated dissent) in China. The dependent variable is "artod." The independent variable is workplace freedom of speech ("WPF" in the file). With this data file, highlight the dependent variable, and move it over to "Dependent:". Click on the independent variable you want and move it over to "Independent(s):".
4. For a basic linear regression, you do not need to click on anything else. If you want to do more advanced regressions, you can use other buttons, but that is something called Multiple Regression. So, at this point press "OK." You will get the following four figures (17.19–17.22):

Figure 17.19 Variables Entered/Removed[a]

Model	Variables Entered	Variables Removed	Method
1	WPF[b]	.	Enter

a. Dependent variable: artod, b. All requested variables entered.

Figure 17.20 Model Summary

Model	*R*	*R*Square	Adjusted *R* Square	Std. Error of the Estimate
1	.265[a]	.070	.067	.43752

a. Predictors: (constant), WPF

Figure 17.21 ANOVA[a]

Model		Sum of Squares	*df*	Mean Square	*F*	Sig.
1	Regression	4.037	1	4.037	21.088	.000[b]
	Residual	53.597	280	.191		
	Total	57.634	281			

a. Dependent variable: artod, b. Predictors: (constant), WPF

Figure 17.22 Coefficients[a]

		Unstandardized Coefficients		Standardized Coefficients		
Model		*B*	Std. Error	Beta	*t*	Sig.
1	(Constant)	1.841	.063		29.006	.000
	WPF	.125	.027	.265	4.592	.000

a. Dependent variable: artod

Figure 17.19 shows the variables entered into the regression. "Variables Entered" shows the independent variable and, beneath that, the dependent variable is listed. Figure 17.20 shows the relationships, the predictive nature of the two variables, and the standard error. You will first see the correlation between the two variables (.27). If you square the correlation, you get the coefficient of determination, the R^2. The R^2 explains how much one variable predicts the other variable. In this case, the R^2 is .07. This means that perception of workplace freedom of speech predicts 7% of an individual's willingness to voice dissent to a supervisor in China. Figure 17.20 also contains the R^2_{adj}. This is the R^2 adjusted for taking into consideration the number of independent variables and the sample size. The smaller your sample size, and the more independent variables you have, the more likely your R^2_{adj} will drop significantly from the original R^2. The R^2_{adj} is a more conservative, and in many ways a more realistic, value of the total prediction in the regression.

Figure 17.21 is an ANOVA table; it should look similar to the one from a few pages earlier. You can see the *F*-

value, the alpha (p) and the *df*. The F and p tell you that the regression is significant, $F = 21.09$, $p < .0001$. Figure 17.22 shows the beta (b, or slope) value and how significant the beta is. Most researchers will report the standardized coefficient, in this case .27, $p < .0001$. This can be interpreted as evidence that perception of workplace freedom of speech increases an individual's willingness to voice dissent to a supervisor in China (b = .27). You should consider the importance of the statistical significance and the practical significance of your regression. In this case, our independent variable predicts 7% of the dependent variable and is statistically significant. However, you should consider if 7% has practical significance. In this case, Stephen would talk about the statistical significance, but temper the results by saying that, while the practical results are limited, the result is statistically significant. In other words, a large sample size may have statistical significance, but you should consider whether what you are arguing has practical impact as well.

This is how you can write up regression results:

> Perception of workplace freedom of speech was a statistically significant predictor of an individual's willingness to voice dissent to a supervisor in China $F(1, 281) = 21.09$, $R^2 = .07$, $R^2_{adj} = .07$. Perception of workplace freedom of speech significantly increased willingness to voice dissent to a supervisor ($b = .27$). While this result is statistically significant, its practical significance must be considered as well. In the case of Chinese organizational members, predicting 7% of their articulated dissent tendency is a step toward understanding their organizational communication.

Regression is one of the most commonly used statistical methods in communication and social scientific research. Yanovitzky, Stewart, and Lederman (2006), for example, find that alcohol use by peers is a strong predictor of students' personal alcohol use. Hollander (2010) finds that Americans who perceived President Obama as a Muslim in September 2008 were more likely to see him as a Muslim in November 2008 during the election. The point of these two random articles is to show the diversity of regression in research.

> During the lead-up to the Brexit vote, pollsters were canvassing the UK to report on who they predicted would win the vote. Through a combination of various independent variables, pollsters reported that, on different days, one side would be ahead of the other. In the end, though, these polls, as has been the case with polls in many other political events, demonstrate how error (human behavior, for example) influences our decisions and behaviors, and thus final results.

Summary

This chapter was a how-to guide for inferential statistics. Generally, statistics are used by social scientific researchers, but can sometimes be used by interpretive and critical/cultural researchers depending on the focus of the study. Hopefully, after reading this chapter, and the accompanying student paper, you feel comfortable enough to try and conduct inferential statistics.

Key Steps & Questions to Consider

1. Inferential statistics make inferences or help us make conclusions about data.
2. There are two main kinds of inferential statistics: tests of difference and tests of relationship and/or prediction.
3. There are two kinds of *t*-tests: the dependent and the independent samples *t*-test. Both help us better understand mean differences between two groups. The result of a *t*-test is a *t*-value.
4. A one-way analysis of variance (ANOVA) is a way to explore mean differences between more than two groups. With an ANOVA you conduct an *F*-test.
5. To understand differences between groups when conducting an ANOVA, you need to perform post-hoc analyses, such as Scheffé or Tukey's tests.
6. The Chi-square test is a test you use to compare the observed frequencies of a variable against the expected frequencies to see if there is a statistical difference between the two. This is a non-parametric test.
7. A correlation is a statistical measure of the degree to which two or more variables (interval or ratio) in a sample are related to one another. Correlations range from −1.0 to +1.0.
8. A regression predicts a dependent variable from one or multiple independent variables.

Activities

1. Spend one week collecting examples of inferential statistics you see in your everyday life. Keep an eye on the shows you watch, the papers and books you read, and the statements people make. Remember, sayings like "9 out of 10 dentists recommend …" are statistical statements! Notice how often inferential statistics permeate our lives.
2. Try tracking down the study which provided one or more of the inferential statistics you collected from Activity 1. Review the statistical tests used in the study. Were the appropriate statistical tests used in the study?
3. Make a chart of the different statistical tests which identifies when each is appropriate to use. Consider the data type (e.g., interval, ratio level), type of variable, form of distribution, etc.
4. Special Challenge: See if you can find a research study which supports the "9 out of 10 dentists recommend/prefer/agree" statement!
5. Work through the following Chi-squared example. You are interested in the soda preference of students on your campus. You ask 90 students to take a taste test. 50 people prefer Diet Coke, 17 prefer Coke Zero, and 23 prefer Coca-Cola. What should be the expected frequencies? What are the observed frequencies? Is there a statistical difference? In the online companion, we go through how to enter this data and the answer.

Discussion Question

1. Review the student paper by Jessica Sturtevant. Sturtevant identifies a number of reasons why her study did not provide statistically significant results. Discuss how your class could replicate the study with modifications to generate different results and insights.

Key Terms

Chi-Square
Correlation
Degrees of Freedom
Denominator *df*
Dependent Samples *t*-Test
Independent Samples *t*-Test
Inferential Statistics
Non-Parametric Test
Numerator *df*
One-Way Analysis of Variance (ANOVA)
Paired Samples *t*-Test
Parametric Test
Post-Hoc Comparisons
Regression
Scheffé Test
t-Test
Tukey's test

Note

1 In SPSS it is standard when you run a statistical analysis for SPSS to only report significance up to the .000 level. Thus, you may see a print out, as on page 222 in Michael's paper where something is significant at the .000 level. This is not the case. For purposes of reporting, add a 1 to the end, so that your reporting says $p < .0001$. It is possible with more sophisticated testing and software to ascertain the exact significance levels beyond .05. Chat with your instructor for further guidance.

2 There are three options we want to explain. Spearman and Kendall's tau-b are kinds of correlations that you can run when you have non-parametric data. When your data is not normally distributed, or when you are working with ordinal data, these tests can be run instead of Pearson, which is the one used for parametric data.

The difference between two-tailed and one-tailed is the other issue we want to clarify at this point. When you have a directional hypothesis, choose a one-tailed test; when your hypothesis is non-directional, choose a two-tailed test. The difference is that a two-tailed test is used when

you cannot predict the nature of correlation.

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Undergraduate Inferential Regression Paper

Students' Use of Online Media and Attitude toward Intellectual Property

Jessica Sturtevant

Abstract

As the use of online media has become more popular, issues such as online copyright and illegal downloading have become more prevalent. College students, as avid users of online media, are a key population in these developments. This study surveyed college students about their use of online media and their attitudes towards intellectual property issues and looked for patterns among the results. Although no statistically significant connections emerged, by examining both the actual media use and the abstract opinions of students, this study shows the importance of this issue and of future research in the area.

The study is based on an important reason for conducting research. Even when the results do not prove a hypothesis or research question, the study is still worthwhile. Such studies show us what is *not* connected or relevant.

Introduction

The use of online media, including listening to music and watching videos online, has become common, especially among young adults. As the use of and the market for media online has spread, so have issues concerning copyright. The increasing availability of music and video online has affected how consumers acquire media and how they view it. This study focused on college students, a group at the forefront of media use and innovation. Participants were questioned about their use of online media and their attitudes towards issues of online copyright. The results were analyzed for patterns and correlations.

The first factor the researcher looked at was gender and its effects on media use. Gender has been linked to use of the internet in previous studies, for example Su-Yen Chen and Yang-Chih Fu's (2009) study of internet use and academic achievement among Taiwanese adolescents. Chen and Fu found males used the internet more frequently than females, and males and females used the internet for different purposes: males were more likely to play online games, and females were more likely to search for information or socialize online (Chen & Fu, 2009). This study and others like it prompted the first research question:

RQ1: Does the gender of a student affect the amount of online media use?

The goal of this study was to see if there are connections between the use of online media and attitudes toward issues of online copyright. These issues include the idea of intellectual property – what rights does an artist have to a work, and how should those rights be protected online? Studies such as Friedman (1996), Jones (2000), and Oberholzer-Gee and Strumpf (2007, 2009) discussed these issues in a general sense and try to offer solutions, but little research has been done that looks specifically at the relationship between media use and attitudes of copyright and intellectual property. To study this relationship the study asked:

RQ2: Are students who use more online media more likely to support having media generally available online?

RQ3: Are students who use more online media more likely to support lenient punishments compared to those who use less online media?

The student leads into the research questions nicely. The reader is guided to the RQs.

Method

Students' use of online media and opinions about online copyright issues were measured using a two-part questionnaire. The first section used a Likert scale ranging from "never" to "often (almost every day)" to measure frequency of online media use in seven categories, including listening to music online, downloading

and buying music online, watching TV shows and movies online, and watching clips on YouTube. Students were also asked about use of Netflix, iTunes or other subscription services. The scores were averaged together to get a comprehensive score of each participant's media use.

> Review the data standards for using an independent samples *t*-test and a Spearman correlation analysis. Remember, you have an unbalanced data comparison with 17 males and 30 females. Does the data fit with the selected tests?
>
> The sample size is fairly small for statistical analysis. Be sure and check with your teacher/advisor about her/his expectations for sample size. The sample size for this study was appropriate for the parameters set by her professor.

The second section of the questionnaire addressed students' opinions about online copyright. Participants were asked if they believed media should be generally available online, what compensation artists should receive, how they felt about punishments for illegal downloading, and how informed they felt themselves and the public to be about these issues.

The questionnaire was administered to 47 second-year students at Marist College. Participants were between the ages of 18 and 20; 17 were male and 30 were female. The researcher went door to door in one section of the dorms to get a sample of Marist students. All surveys were completed anonymously to encourage honesty and detailed responses.

> The first section used a Likert scale, but we're in the dark about the second section. Your description of the method should be thorough, so the reader can put together a comprehensive overview of data collection. The questions in the second section look solid, but the format that was used to gather the data —as you have discovered and will continue to discover in your understanding of methods—can be critical in research design.

> Refer to the chapter on Data and ask yourself the following questions: Do 18–20-year-olds represent all college students? Is a door-to-door sampling from one section of a dorm representative of college students? The student could address the questions by tightening up the research questions (e.g., "Are 18–20-year-old college students ….") or by addressing these as limitations at the end of the paper.

The data for this study were analyzed using three separate tests, one for each research questions. For research question one, an independent samples *t*-test was conducted comparing participant gender and media use. For research questions two and three, a Spearman correlation analysis was used to compare participant media use and opinion of whether media should be generally available or not, and participant media use opinion about punishments (Wrench, Thomas-Maddox, Richmond, & McCroskey, 2008).

Results and Discussion

The gender of the participant did not have a significant effect on the amount of online media use, t (22.863) = – .20,p = *ns*. Both men (M = 3.4534, SD = .68292) and women (M = 3.4877, SD = .35718) had very similar rates of media use. This is contrary to what Chen and Fu 2009) discussed; however, this may be due to the smaller sample and different age group (college students compared to adolescents) and to the fact Chen and Fu looked at all different uses of the internet and the current study focused only on media use. The use of a comprehensive score for media use may have made the results slightly less accurate than comparing the use of each type of media between participants.

> Normally, all the statistical results are provided in their own section of the paper. Then limitations, interpretations, and alternate interpretations are provided in a separate section. Shifting to limitations and explanations in the middle of the results section may lead to confusion.

The prediction that students who use more online media would be more likely to support having media available online was not verified by the results, r (45) = – .01, p = *ns*. Most of the students supported having media accessible, regardless of how often they personally used online media (39 students responded media should be available; four said it should not be available; and four said it should be available with conditions). However, all of the students reported using online media on a regular basis, so this study only compared whether the frequency of online media use was a factor, not whether people who use online media differ in their opinions from those who do not use it at all.

Finally, participant media use was not significantly related to opinion about punishments for illegal downloading or file sharing, r (45) = – .05, p = *ns*. However, it seems logical that those who use more online media (and may use it illegally) would be more likely to support fewer or more lenient punishments than those who use less media, and this result, though not statistically significant, was closer to being significant than either of the others, so it is possible that with a larger sample there may be a correlation.

Conclusion

Though this study did not make any significant connections between students' use of online media and attitudes towards issues of copyright and intellectual property, it did begin to examine an important and multifaceted issue. All the students in the study reported using online media, with most students using some form almost every day and many using all seven types described. All the students surveyed expressed some opinion about copyright issues, with most in favor of media being generally available online but many proposing solutions to meet the needs of the artists as well as the needs of the consumers. There are connections and patterns among these results, though they may not be statistically significant.

Further research is needed to look at the relationship between media use and attitudes toward intellectual property in more depth, examining larger samples and audiences other than college students to see if these results hold true, or if the trends change in a larger sample.

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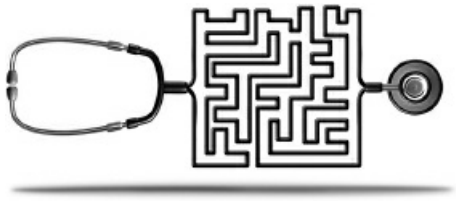
18 Mixed Methods

by Malynnda Johnson

Chapter Outline



What Will I Learn About Mixed Methods?

For as long as I can remember, I have always asked complicated questions. I was rarely the "but why?" kid; instead, I asked: "I wonder how many people do that? What makes some do it and not others?" When I started my career as a communication researcher, I again found myself asking questions that could not be answered with just a survey or interview. While one method provides valuable insight, I always needed another method to fully answer the question I asked. I focus my research in health communication and much of the work done in my field is considered applied research and naturally lends itself to more complicated questions. For example, how many people are engaged in a risky behavior and what makes them do so? Do medical practitioners abide by guidelines? What are their motivations when they choose not to? Although these questions could be answered by separating out the questions and applying a corresponding method, our understanding would be incomplete. To address these types of questions, more than one method is required. To gain the fullest understanding of complex problems, a mixed methods study needs to be conducted.

Why Complex Ideas Require Complex Methods

To understand any aspect of life, do you fully rely on mathematical equations? Does your opinion of a political figure only come from what the media says? Are the stories your mother told you about the dangers in life the only ways you have learned what not to do? If you are like most, the answer will be no to each question. For instance, your mother might share her first-hand account of the dangers of riding a bike without a helmet, showing the scars from when she crashed into a tree, but if no one else you know has ridden a bike into a tree, you may not feel a need to wear your helmet. Similarly, if you think that the only reason to wear a helmet is the number of people with head injuries, but you never heard a personal story or saw the impact of not wearing a helmet, your behavior is unlikely to change. In other words, we often seek more than just numbers or just a personal story. Before we know anything to be true, we seek out as many facts and perspectives as we can. Once the pieces are assembled and examined as a whole, fuller understanding is achieved.

As we discussed in other chapters, we can understand the world around by considering multiple paradigms.

From a social science perspective, theories are applied, data are collected, and numbers are tested. Seeking to understand the world through the stories and experiences of others, interpretive scholars interview and observe people and surroundings, collecting data along the way to paint a picture of a culture or society. Critical scholars, on the other hand, interpret a variety of texts including speeches, magazines, and even film, to build arguments about the ways people persuade and influence others, and use their power and privilege. Each paradigm offers a lens through which we can understand the world. But each is limited to an explanation of only one piece of the communication puzzle.

Take, for example, the phenomenon of testing for sexually transmitted illnesses (STIs). From a social science perspective, the promotion of STI testing in a community could be examined by comparing the numbers of people who sought testing before and after an intervention. A researcher might consider multiple versions of the intervention to determine if one were more successful. However, by only considering the number of people who responded to the intervention by seeking testing, the researcher doesn't know what actually motivated the individuals. What about the intervention worked? Why did others choose not to get tested? These "why" questions cannot be answered by numbers alone, and must be addressed by conducting interviews or other forms of qualitative research. The rich stories collected through qualitative methods provide us with a deeper understanding of the motivations behind someone's choice to seek testing. However, conducting interviews takes time and demands the willingness of participants to talk about their behaviors. While each kind of study produces vital knowledge about STI testing, they risk readers not seeing both studies. However, if the two methods are brought together, then a reader gains understanding from both the numbers of new tests and the motivations behind getting tested. By mixing the methods, we gain a better understanding of the complex issues communication researchers often tackle.

Mixed Methods Defined

At the most fundamental level, a mixed methods study draws upon strategies of data collection originating from two or more research approaches. The most common pairings are quantitative and qualitative data. For example, imagine you are measuring college students' perceptions of binge drinking. After surveying your peers, you have a feeling the scores are not telling you the whole story. If only you could talk to some of the participants to see why they chose their answers, then you could hear the story behind the score and have a fuller understanding of their perceptions. By combining the survey with an interview, you have the opportunity to triangulate the data. Triangulation is a centerpiece of mixed methods research and can be used to describe corroboration between two sets of findings, or to describe a process of studying a problem using different methods to gain a more complete understanding. In other words, triangulation contributes to the verification of data, the process of checking data for accuracy and inconsistencies, by attempting to accurately describe what is learned (Mathison, 1988).

The mixed approach to research is comparatively new, beginning in the 1950s, most notably with Campbell and Fiske's (1959) work extending the conceptual framework on triangulation, and gaining traction in the 1980s (Creswell & Plano Clark, 2011; Teddlie & Tashakkori, 2003). However, researchers were conducting mixed methods studies much earlier (Small, 2011). For example, mixing qualitative and quantitative methods as a means of solving social problems has been traced back to the early 19th century (Alastalo, 2008). Maxwell (2016) argues that Galileo's measurement and observations of the sun and planets should be considered the result of mixed methods. Seeking to address a vast array of issues, social scientists across the field of communication are combining methods. In many areas, including health, policy, and organizational communication, the application of mixed methods is a practical necessity (Fielding, 2010).

What to Consider When Planning a Mixed Methods Study

A key to any successful mixed methods study is careful consideration of the intentions of the study, and logistical planning. As any research advisor will tell you, selecting a method should begin with the question you are asking and ensuring that your questions are complex enough to warrant multiple methods. After determining multiple methods are appropriate, carefully consider how the study will be done. Mixed methods studies can take many forms, and no one particular combination may meet a researcher's goals. Therefore, a researcher must plan ahead and remain flexible when planning their strategy. To help you plan a mixed methods study, the remaining chapter will guide you through the planning process.

Scope of the Study

You should combine methods when your research questions are not within the ability or scope of one method. Second, you could choose a mixed methods approach when your interest in a topic prompts multiple viewpoints of a central topic. Let's say, for instance, you are interested if the number of "likes" a picture has on social media impacts the perception of a person in the photo. Mixed methods would not be suitable, since the question is focused on observing a specific change. Any number of single measures could be used to test if the number of "likes" correlates to the overall perception of the photo. If the research focus is modified to ask, "Are people influenced by the number of 'likes' a picture has on social media?" then a mixed methods study could be useful. By shifting and widening the focus from testing *if* change was occurring, the question gains complexity and increases the opportunity for multiple methods. A researcher can then investigate if the number of "likes" impacts perceptions, and then interview participants about their perceptions of the images. The initial data provides answers for the *if* portion of the question, while the interviews provide a deeper understanding of *how* and *why*. By combining the elements of multiple approaches, we gain a fuller understanding of how the "likes" impact social media users.

Exploring Scope

Previous research argues acceptance by peers is an important part of children's positive school experience (Masten & Coatsworth, 1998). Additionally, it is thought that social acceptance is positively linked to many measures of children's well-being, including academic success and self-confidence (Estell et al., 2002; Ladd et al., 1997). Given the tendency for individuals to gravitate towards and befriend like-minded, similar peers (Martin et al., 2013), Braun & Davidson (2017) sought to understand the importance of social acceptance by peers in middle childhood from a social constructionist perspective.

Focusing on gender (non)conformity in middle childhood, the goal was to examine the associations among gender, gender-typed behavior, and peer preference in children (9–10 years old). To achieve this goal, the researchers first explored the extent to which girls and boys differed in terms of masculine- and feminine-typed behavior. Second, they examined whether engagement in gender-typed behavior was associated with children's gender and preference for a hypothetical new classmate.

Question:

1. Are the goals of this study complex enough to warrant a mixed methods design?
2. Given the goal, what methods would you use and in what order?

Study Outcomes

Along with understanding the scope of a study, a researcher must consider the outcome. Outcomes are the goals you have for the study. Think back to the chapters on paradigms: each paradigm has specific goals its research seeks to achieve. For instance, a social scientist tests a theory to better predict a behavior. Thus, a primary outcome measure includes specific key measurement(s) or observation(s) used to measure the effect of experimental variables in a study. In other words, one goal of a study might be to describe and predict patterns of diseases or traits or associated with specific risk factors. Many outcomes lend themselves to mixed methods, such as the desire to understand participants' perspectives during an experiment, or to provide more effective contextualization of instruments, measures, or interventions. Given that this chapter's goal is to provide a broad overview, let's explore four additional mixed methods outcomes more closely.

The first outcome is an in-depth explanation of quantitative results. Statistical analysis provides direction and insight, yet cannot provide cultural context and relevance. Additional data can provide a deeper explanation. The second outcome is merging databases to show how data converge or diverge. In these cases, we are seeking to compare different perspectives from multiple angles. The previous example of "likes" for a photo could fall into this outcome. When seeking to promote change, studies may work towards the third outcome of identifying where a population stands on a topic and what it may take to get the group to act. In such instances, a

transformative approach provides for the needs and challenges of a group. Finally, when an outcome involves proving both formative and summative evaluation, mixed methods can be essential. Combining pre-test and post-test data to observations provides a full picture of what is being assessed, and reveals multiple levels upon which to evaluate the impact of an intervention.

Integration of Data

Mixed methods research is more than the types of data collected or even the outcome, but rather how the data is analyzed and interpreted. As Maxwell (2016) argues, regardless of the research strategies implemented, as long as the data are mutually informative, rather than kept separate, the study is mixed methods. Careful consideration regarding how data will be integrated within a study is vital to labeling research as mixed methods. Integration occurs within a study when the data sets are either merged, connected, or embedded. Integrated data is a conversation between the qualitative and quantitative components of the study. The statistical results provide a precise objective voice, while the qualitative results provide a deeper understanding of the numbers. How one chooses to integrate the data, again, will depend on the choices made when planning the study. The first available choice is to merge the data. Merging the data can be achieved by comparing sets, transforming one set by the other, or simply displaying them jointly. The second option is connecting data, which requires the analysis of one data set as a means of guiding the collection of the other. For example, results from an initial survey can identify specific groups of people to select as interview or focus-group participants. Johnson (2016) surveyed 487 young adults about their HIV knowledge and readiness to be HIV-tested. Using contemplation ladders (a scale where a participant selects a level that describes their behavior), she identified three categories of people: those who had never thought about HIV testing, those who had yet to seek testing, and those who had been tested. With the three groups identified, she was able to quickly contact and interview participants within each category, and to add their stories to the numbers collected. Finally, the third means of integrating data is by embedding. Embedded data refers to the combination of multiple smaller sets of data into one within a larger framework. Essentially, extra information is collected in addition to the question responses. Take, for example, survey questions about a presidential election. Smaller sets of information exist about voting habits, political viewpoints, or about how the amount of time spent researching a candidate helps you gain a deeper understanding of the larger questions. By embedding the data, you are able to look at multiple pieces under one umbrella.

All three integration options can produce a successful mixed methods study, although each one changes how the data will be collected and analyzed. Thus, timing is a third question to consider when planning a mixed methods study.

Timing of Data Collection

Carefully consider the timing of mixed methods research. Timing in a mixed method study is closely related to when each type of data will be collected and analyzed. One approach is to collect all the data concurrently, meaning that all phases of data collection occur at the same time. The concurrent approach offers efficiency in time; however, it may not be appropriate for all studies. If initial surveys provide information for creating focus groups, then a sequential study is appropriate. In a sequential study, the researcher implements the study in distinct phases. In the first phase, a researcher collects data to be analyzed and used in the next phase of study. Finally, you can combine both timelines into a multiphase study. Employing both concurrent and sequential timing commonly consists of multiple rounds of data collection.

As you can see, a number of considerations must be taken into account when conducting mixed methods research. But the question remains: how does one actually conduct the research? In the following section, we'll walk through the process step by step.

Conducting Mixed Methods Research

Step One: Study Design

Step One starts with your selection of one of three study designs: Convergent Parallel, Explanatory Sequential, or Exploratory Sequential. A Convergent Parallel design keeps the quantitative and qualitative data collection and analysis separate, and then merges and compares them after the completion of the study. The goal of this design is

to interpret the convergence or divergence of the two sets of data. Such a design is efficient in terms of the time required for data collection, and each type of data is collected and analyzed separately and independently. However, efficiency presents some challenges. First, careful planning and expertise is needed to ensure equal weight is given to each data type. Second, consider the consequences of different samples and different sample sizes when merging the data. The third challenge is the process of merging two sets of different data. Finally, be prepared to handle quantitative and qualitative results which do not agree. Contradictions may provide new insights, but the differences can be difficult to overcome and may require the collection of additional data.

The next design option is Explanatory Sequential. A study begins with the collection and analysis of quantitative data. The results are then used to structure the questions for the qualitative phase. Finally, you interpret the ways that the qualitative results explain the initial quantitative results. The structure provides a logical orientation and flow to the study. The design allows for the data to direct the second phase of study. Themes and patterns emerging out of the quantitative data guide fieldwork or the questions asked during qualitative phases. However, an Explanatory Sequential design does have challenges. Obviously, with the phases of collection and analysis occurring back to back, the amount of time is doubled. This design may raise questions from an Institutional Review Board (IRB), since you cannot specify how participants will be selected for the second phase until you have your findings from the first phase. However, you can overcome the challenge by identifying key questions for selecting phase-two participants.

Finally, the third design option is Exploratory Sequential. Exploratory Sequential also uses sequential timing. In contrast to an explanatory design, the exploratory design begins with the collection and analysis of qualitative data and emphasizes depth and richness of data. Building from the qualitative results, you seek to test or generalize the initial findings by conducting a second quantitative study. An Exploratory Sequential design provides a straightforward way to describe, implement, and report each phase of study.

Depending on the complexity of the topic, advanced designs might be required. The three most common are embedded, transformative, and multiphase. Let's briefly explore each (for a detailed explanation, see Creswell, 2014). The embedded design occurs when the quantitative and qualitative data are collected and analyzed concurrently. The design includes qualitative data to answer a secondary research question within the quantitative study. This design can be helpful when a researcher does not have sufficient time or resources for extensive quantitative and qualitative data collection. The design provides supplemental data the researcher can use to improve the larger design. The transformative framework runs data collection and analysis concurrently *or* sequentially. Typically, a transformative design is used when specific theoretical frameworks (for instance, feminist theory) require particular structures.

Lastly, consider your audience when designing the study. When your study is complete, will your readers have a predisposition to one method over another? Second, consider your ability to use and understand the different methods. Your own tendencies and experiences will likely influence the design you choose. Your timeline plays a significant role in designing the study. Finally, carefully consider the complexity of the design. Again, based on your skillset for each method, and the number of variables, research questions, and other aspects of the study, you want to ensure that you think through how you will analyze the various data sets you will collect.

Step Two: Study Diagram

Developing a study diagram is helpful for mapping out each stage of the study. Your diagram should include the methods, procedures for collecting data, and the data sets you anticipate collecting. For example, Braun and Davidson (2017) investigated the associations among gender, gender-typed behavior, and peer preference. Using a Convergent Parallel design, the following map plots how data was collected at each step and then compared to provide findings.

Mapping a study may seem optional, but it provides an important visual for your study. Seeing the pieces in place can aid in keeping track of data and steps, and forces you to think through all the steps in your study.

Step Three: Data Collection

Your data collection process will follow the path of the selected design. The key is to create a plan for keeping the data organized and manageable. Some of the specific challenges when conducting concurrent designs (merging quantitative and qualitative research) involve having adequate sample sizes for analyses, using comparable samples, and employing a consistent unit of analysis across the databases. When considering sequential designs (one phase

of qualitative research builds on the quantitative phase, or vice versa), the issues center deciding which results from the first phase to use in the follow-up phase, choosing samples and estimating reasonable sample sizes for both phases, and interpreting results from both phases.

Step Four: Integrating the Data

How you choose to integrate the data you have collected is again dependent on the design and outcomes of the study. When choosing to merge data, researchers commonly report each data set followed by a discussion of how the sets confirm or refute each other.

Step Five: Write-Up and Discussion

As with all research studies, the results section is followed by a detailed discussion. By drawing connections across the literature, theory, and results, the discussion should clarify the way the data sets were combined and how they build an argument for the research. By integrating multiple methods, you can discuss a topic from various viewpoints, or provide a narrative for numerical data. By collecting and integrating data across methods, the discussion of findings provides an opportunity to offer insights, verify objective realities, and enrich the understanding of multiple realities.

Summary

This chapter provided an overview of the reasons why one might consider conducting a mixed methods study. Broadly speaking, a mixed method study is chosen when the topic is so complex that it calls for more than one type of data to fully answer your research questions. A researcher might select this type of study to obtain multiple perspectives on the same topic, thus offering both depth and richness in the data and in generalizability. Important questions to consider when planning a mixed methods study were discussed, and an overview of key study designs was given.

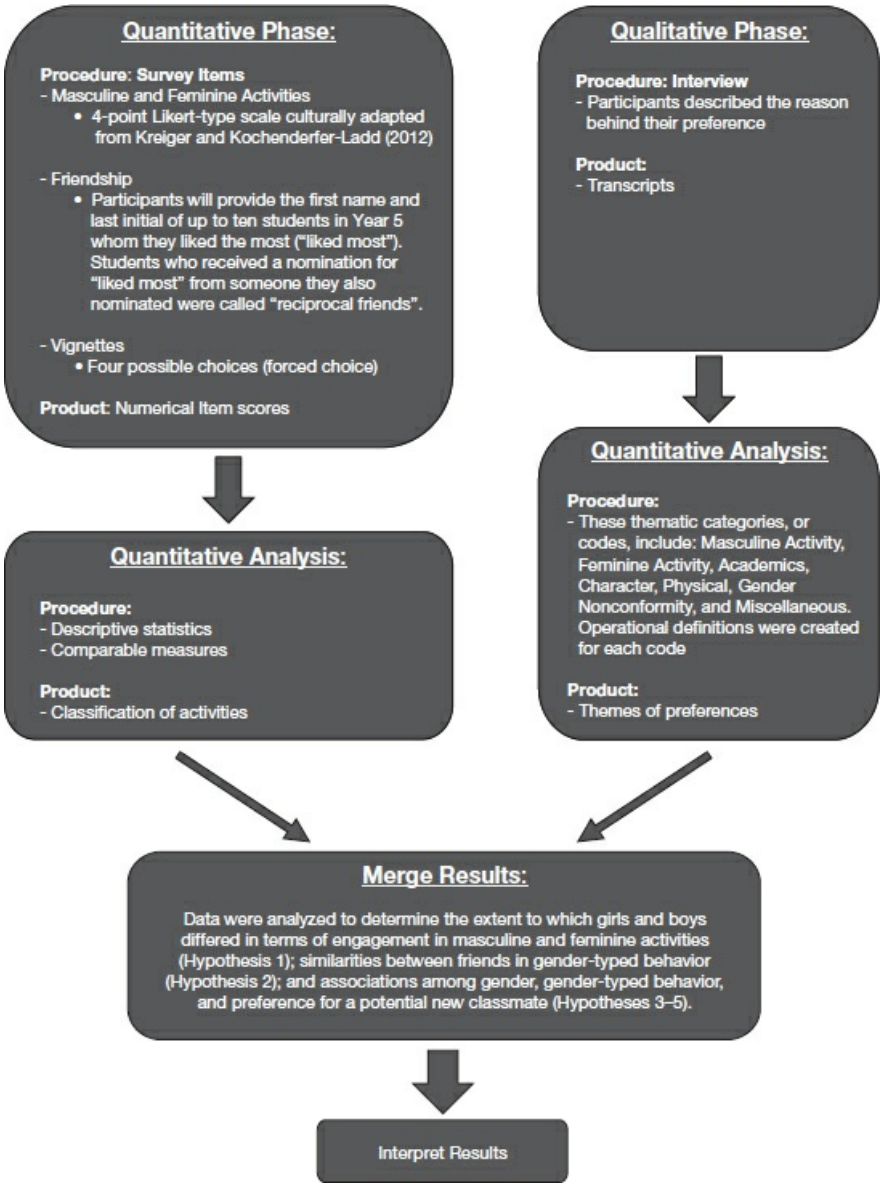


Figure 18.1 Mixed Method Process

Key Steps and Questions to Consider

1. Choose and research your topic.
2. Ask yourself if the topic is reaching a complex level requiring multiple methods.
3. Identify the types of data needed to answer your research question(s) or hypothesis.
4. Decide on how you will collect the data (e.g., interviews, surveys, or existing data sets).
5. Which phases of the study involve human subjects? Will you be required to obtain approval from your Human Subject Review Board or Institutional Review Board?
6. What is the order of data collection? Will the data be collected simultaneously or in phases?
7. Depending on the types of data being collected, you will want to return to those chapters and review the steps and questions for those specific methods.
8. How and when will you analyze the data? Will you examine the data at the end of each phase, or after all data is collected?
9. Reflect on each phase of the research (if conducted in phases). Self-reflection provides direction on the areas of focus for the additional steps in the process.
10. How will you triangulate the data? Remember that the whole point of mixing methods is to allow you to compare and build from different data sets. You must combine or look across your data.

11. Throughout the whole process, you may have hopefully identified and developed connections to the previous research. Be sure you make note of the connections, because those connections are the start of the discussion section of your paper.

Activities

A. Select a topic commonly discussed in the media (television, newspaper, music, or social media), for example: violence, politics, gender representation, or sexual health. Over a weekend, or in a gap between classes, have groups engage with the selected media. Be sure they collect both quantitative (number of times the topic is seen) and qualitative data (ways the topic is covered, the way it made them feel, etc). Then share the findings of the initial data sets. Discuss how by watching for a topic you gain both sets of data, yet are limited by your own viewpoint. Have each group identify the ways each topic could be expanded to become a mixed methods study.

    1. Based on what is found, develop a research question requiring a mixed methods approach.
    2. Consider the question and identify which design best works for your study.
    3. Map out the steps of conducting the study including the procedures and products of each step.

B. Have students conduct a mixed methods scavenger hunt. In groups, have students select an area of communication likely to generate complex questions. Within that area, brainstorm topics complex enough for mixed methods. Using your school's library and/or online databases, have students seek out examples of mixed methods studies in those areas.

Video

What is Mixed Methods Research? By John Creswell https://www.youtube.com/watch?v=1OaNiTlpyX8

Discussion Questions

1. How does the combination of methods provide a better understanding of an issue?
2. Why does the timing of data collection play a crucial role in the analysis of the data?
3. What is the essential difference between mixed methods research and simply using multiple methods in a study?

Key Terms

Concurrent
Connecting Data
Convergent Parallel
Embedded Data
Explanatory Sequential
Exploratory Sequential
Integration
Merging Data
Mixed Methods
Multiphase
Outcome
Primary Outcome Measure
Sequential
Timing
Triangulation
Verification

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Undergraduate Mixed Methods Paper

Television and Terror

Jenna Bludorn

Review of Literature

Terrorism has power over us. In the post-9/11 world that we live in, fear reigns. Even our political candidates inspire fear into the populous in order to give themselves an edge in the election. Some experts assert that the threat of terrorism is very real and present in our everyday lives, while others argue that, although real, the threat of terrorism is overstated and perpetuated by the media. Media reaches into each and every part of one's life. From Facebook, Twitter, and other social media to print news, television news, and radio news, it seems that there is no place safe from the media's influence. Concerning the aspect of terrorism, the media may or may not have an influence on peoples' perceptions.

> Jenna has identified a complex and important problem that will easily lend itself to a mixed methods study.

The media basically decides the overall significance of an event. This phenomenon is called media framing. A media frame is an "interpretive package that prioritizes a certain explanation or significance of an event. Any occurrence may be presented in several different ways, and the media make a purposeful choice to emphasize certain elements of the reality and suppress others" (Yarchi, Wolfsfeld, Sheafer & Shenhav, 2013). The media uses these frames to put terrorists front and center because their stories are sensational, or they draw a lot of attention. These frames make the public terrified of Muslims in general, and according to Chaudhry (2016), it is a direct fuel for Islamophobia. This helps terrorists in the end because it draws a lot of attention to their cause.

Groupthink sets the stage of media influence. According to Janis (2005), this theory unites all the members of a group to one way of thinking. Therefore, in relation to terrorism, if "the media says that Muslims are violent ad all my friends think they are violent; they must be violent", again giving direct power to the media as an influencer. This idea that the media has all of the power is supported by the media equation, which says that what is portrayed in the media is equal to what is true in real life. To even further the media's power, agenda setting theory comes into play. According to McCombs and Shaw (2015), "the media tell us (1) what to think about, and (2) how to think about it. The first process (agenda setting) transfers the salience of items on their news agenda to our agenda. The second process (framing) transfers the salience of selected attributes to prominence among the pictures in our heads." With all of these theories working together, it is simple to see how the media influences perceptions of terrorism.

Building upon research that has already been completed, this study seeks to identify (1) the relationship between the type of media consumption and perceptions of terrorism, (2) the amount of media consumption and perceptions of terrorism, and (3) the relationship between age and perceptions of terrorism in the media. Although research has been completed on these topics, there are holes in what has been found and it is not up to date in the advanced technological and media-focused world that is today's society.

> Given these goals, the mixed methods approach may not be clearly argued. The wording leans heavy on the quantitative side and does not fully create a framework for the qualitative piece.

Method Choice

When contemplating which type of study to choose, it was necessary to understand that a deeper look into the data must be obtained. Therefore, mixed methods was chosen. At first, it was assumed that the emphasis would be on the qualitative data, with the quantitative data there for support. After the study began, however,

the emphasis shifted to the quantitative data with the qualitative there for support. The quantitative part of the study encompassed more people, points of view, and valuable information. The qualitative data is still extremely valuable, but it will ultimately be used for support and for the advertising campaign part of the final project. Both quantitative and qualitative methods used will be thoroughly explained in the "procedure" part of this paper.

Given the ongoing challenges for mixed methods approaches, it is vital that a detailed rationale for this approach is offered. A sentence or two more would allow the reader to understand which structure of mixed methods will be used, and why this structure was required.

Although this study was originally proposed from the beginning as mixed methods, one must be careful in the presentation of the steps. The reader could infer that the mixing of methods was not planned, but was done only in response to the initial data.

Participants

Of 118 participants, 95 (80.5%) were female, 20 were male (16.9%), and three (2.5%) preferred not to say. 50% of participants (59 participants) were of ages 18–28. 21 participants (17.8%) were 29–39, 15 (12.7%) were ages 40–50, 15 (12.7%) were ages 51–61, 7 participants (5.9%) were 62–72, and finally 1 participant was 72+. 50 participants (43.1%) identified as Democrat, 38 participants (32.8%) identified as Republican, 4 participants (3.4%) identified as Libertarian, and 24 participants (20.7%) identified as "other".

For religion, Christian, Buddhist, Atheist, Hindu, Islam, and "other" were listed as options. 21 participants (26.3%) identified as "other". The majority of respondents (76, 64.4%) identified as Christian. Ten respondents (8.5%) identified as Atheist, and one respondent identified as Buddhist.

Options for race included: white, African-American/black, Middle Eastern, Asian, Hispanic/Latino, mixed, and "other". The majority of respondents (112, 94.9%) were white. Two respondents (1.7%) were Asian, two were mixed, one (.8%) was Hispanic/Latino, and one identified as other.

Procedure

For the qualitative part of the study, interviews were conducted. Overall, seven people participated in the interviews. Though limited in number a snow-ball sample approach was implemented, therefore participants were not chosen at random. Five of the participants were male, and two were female. All participants were white. One was a freshman, five participants were juniors, and one participant was a senior. All were students of a small private Midwestern university.

Interviews were conducted with word associations to test the question of media frames and how they affect the general American public. Media buzzwords and known media biases were tested to draw conclusions about media influence. The media sways and changes peoples' opinions using media frames, and groupthink makes all of this possible. It was important to be able to speak with participants after the word associations and ask them a series of pre-defined questions to determine how the media has affected their personal views of terrorism, and to do this quantitatively would not have had as much depth or accuracy. Participants were read known media buzzwords and asked to reply with their immediate reaction. Participants generally replied with 2–5 words or phrases for each word they were given. After the word associations were complete, participants were asked a set of pre-determined questions concerning the media, terrorism, and media bias. These questions were to be answered in full sentences. Overall, each interview lasted about 5–8 minutes.

Additional information is missing about how this phase of data collection was used in the following phase. Is the data being merged later? Or is the information from one phase shaping the focus of the next?

For the quantitative part of this study contributing to the public relations plan, a survey was given to reach people of all age groups above the age of 18. It aimed to reach people of varying ethnicities and genders as well. The link to the survey was spread through all forms of social media, specifically Facebook and Twitter. This was chosen because it was an appropriate way to reach more people about more sub-topics in a reasonable amount of time. The demographic questions asked at the end were asked in hopes to more clearly define the

survey responder to accurately interpret the data. Demographics included: gender, all ages, all ethnicities political orientation, and religious affiliation.

Survey respondents were asked to define how much news they watch, where they get their news, and through what channels in order to form correlations between these factors and the perceptions of terrorism. This survey in included a total of 21 questions, including demographic questions. All questions were multiple choice or had a scale to respond to. In any question with "other" as a response option, the responder was asked to specify and define this "other". The survey was open for over a month. After the survey, analysis was conducted.

Data Analysis

ANOVAs and independent t tests were run. To determine the relationship between the type of media consumed and perceptions of terrorism as a real threat, a three-way ANOVA between "what is the primary source for your news, what is your perception on terrorism, and how accurate is the threat of terrorism happening in your country?" was run. A t-test comparing the variables of age and primary source of news was the second test completed. Various other t-tests and ANOVAs were completed, which held no significance. Finally, a t-test comparing the source of news and the accuracy of the threat of terrorism in the respondent's country was run to support the results from the significant ANOVA. The dependent variable in this research was the perception of terrorism in the general public. The independent variables were (1) amount of media consumed, (2) type of media consumed, and (3) age. The goal of this survey was to test if these independent variables effect the dependent variable.

> With the paper's heavy interest in the quantitative aspects, the mixed methods approach seems to get lost. We need a discussion about how the data is coming together. Where is the triangulation?

Results

The three-way ANOVA between "what is the primary source for your news, what is your perception on terrorism, and how accurate is the threat of terrorism happening in your country?" showed a .925 significance level in the two tailed-test, which is very significant on the significance scale. This suggests that there is a relationship between these variables, and this information is crucial to FAIR's public relations program. The t-test comparing the variables of age and primary source of news showed no significant results. Based on this, the target public for the program will have to be broader. Finally, the t-test comparing the source of news and the accuracy of the threat of terrorism in the respondent's country was run to support the results from the significant ANOVA, and the results were very significant with a .980 significance level. All of these tests support the hypothesis that there is a relationship between the type of news consumed and the viewer's opinion of the threat of terrorism. By this nature, if a person only views one outlet, he or she will be biased in a certain way. The public relations plan will work to inform people of this media bias predicament and give them tools to broaden their media horizons.

Data, however, is not significant without communication theory to support it. Groupthink sets the stage of media influence. According to Janis (2005), this theory unites all the members of a group to one way of thinking. Therefore, in relation to terrorism, if "the media says that Muslims are violent ad all my friends think they are violent; they must be violent", again giving direct power to the media as an influencer, as it can be used to silence groups into believing the media's message without verifying and comparing the information. This way of thinking can also work positively for FAIR's public relations campaign. For example, if "all my friends are checking their sources and scrutinizing their information, then I should too". FAIR's ideas will spread across demographics more quickly with this theory fueling them. This idea that the media has all of the power is supported by the media equation, which says that what is portrayed in the media is equal to what is true in real life. To even further the media's power, agenda setting theory comes into play. According to McCombs and Shaw (2015), "the media tell us (1) what to think about, and (2) how to think about it. The first process (agenda setting) transfers the salience of items on their news agenda to our agenda. The second process (framing) transfers the salience of selected attributes to prominence among the pictures in our heads." Media framing applies to FAIR's research findings perfectly. People that viewed certain media outlets reported

a correlation to their thinking about terrorism. With all of these theories working together, it is simple to see how the media influences perceptions of terrorism and why there is a need for people to be aware of how they are influenced. Therefore, FAIR conducted research to create a plan to raise awareness and help fight media bias.

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Jenna is on the right track with her reference citations, but needs to double-check her citations to ensure that all information is included and correctly formatted to APA Style standards.

19 Rhetorical Criticism

Chapter Outline

What Will I Learn About Rhetorical Criticism?

Arguments about gay marriage now seem like old news since the U.S. Supreme Court settled the matter in a landmark 5–4 ruling in *Obergefell v. Hodges* (2015). Since the Court handed down its ruling, states and lower courts have continued to try and chip away at the right to marry. Before the Court ruled, the issue was hot across many states. The photos above show yard signs which supported opposite sides of a political issue in Minnesota. Responses to the issue of gay marriage varied across the United States with different states taking a wide range of positions. Some states supported gay marriage, others offered a compromise called civil unions (or civil partnerships), and some passed laws barring gay marriage. The state of Minnesota passed a law in 1997 prohibiting marriage between persons of the same sex and voiding any contractual rights if a couple were married in a different state (Minnesota Statutes, 2007). However, members of the legislature believed that the law might be overturned by state courts, and wanted to embed the prohibition into the state constitution. Organizations sprang up to support and oppose amending the Minnesota Constitution. The competing organizations hosted fundraisers, selected spokepersons, created (and updated) websites, produced and distributed paraphernalia (yard signs, buttons, stickers), and engaged across the range of social media (e.g., YouTube, Twitter, and Facebook).

Individuals sustained their cause by "sharing" messages through social media, hosting house parties, writing letters to editors, and undertaking other actions of support. The yard signs you see to start the chapter were just the "tip of the iceberg." The political process continued on many fronts. Consider the U.S. presidential campaigns between Donald Trump and Hillary Clinton. We saw political ads, political rallies, news stories on TV and in newspapers, brochures, fliers, and … yard signs. We saw candidate Trump use his preference for name-calling (e.g., "Little Marco" Rubio, "Lyin' Ted" Cruz, "Low Energy Jeb" Bush, "Crooked Hillary" Clinton). President Trump continues the practice with "Rocket Man" Kim Jong Un and "Sloppy Steve" Bannon. The speeches, ads, stories, rallies, documents, debates, yard signs, and name-calling are examples of rhetoric, and are opportunities for communication scholars to engage in rhetorical criticism. In Chapter 19, you will learn how to conduct a rhetorical criticism as a form of communication scholarship.

Overview of Rhetoric and Rhetorical Criticism

Rhetoric and rhetorical criticism are the oldest forms of scholarship in the communication discipline. They date back to the Ancient Greeks, who were focused on determining what constituted an effective speech. The study and practice of rhetoric became so important for the ancient Romans that it was listed as a core part of a classical education. A Roman citizen studied rhetoric, grammar, and logic (by the medieval period, the three disciplines together were called the trivium) (Salisbury, 1180/2009). The study of rhetoric has continued, in one form or another, for thousands of years since.

Rhetorical criticism is different in two ways from most other forms of communication scholarship. First, rhetoric and rhetorical criticism are major areas of study in the discipline. Unlike other forms of research methods, rhetoric and rhetorical criticism stand alone within communication studies. Some communication scholars focus their entire careers on the study of rhetoric and rhetorical criticism, and entire organizations are dedicated solely to the study of rhetoric (e.g., Rhetoric Society of America, International Society for the History of Rhetoric, Canadian Society for the Study of Rhetoric). In fact, one organization, the Kenneth Burke Society, focuses solely on the writings of just one scholar. Second, rhetorical criticism is more subjective than other communication research methods. A criticism is, at its core, an argument about how a symbol can be understood using a particular theory as a filter. The criticism or argument provides a new way to understand the world around us, and identifies better ways to engage with others around us.

The study of rhetoric and rhetorical criticism can be a daunting task. Rhetoric and rhetorical criticism have a close relationship with many of our sister disciplines including philosophy, English (particularly composition, poetics, and literary theory and criticism), sociology, religion, anthropology, and psychology. These interdisciplinary connections make rhetoric and rhetorical criticism a robust field of study. However, the breadth and depth also make rhetoric and rhetorical criticism a complicated and complex area of study. For example, the *Encyclopedia of Rhetoric and Composition* (Enos, 1996) is devoted to listing, defining, and explaining the specialized language and concepts of rhetoric. We remember when we first started studying rhetorical theory. The terminology and the range of theoretical concepts was intimidating, and can quickly overwhelm a young scholar. We highly recommend that you start your own glossary of rhetorical terms for continual development and reflection as you expand your repertoire in rhetoric and rhetorical criticism. In this chapter, obviously, we are not going to cover every aspect of rhetoric and rhetorical criticism. We will provide a good starting framework. Take your time as you begin to explore rhetoric and rhetorical criticism. Learn which theories "speak" to you and then take the time to explore those theories in more detail. You may decide if rhetoric and rhetorical criticism is your niche in the discipline!

Rhetoric Defined

Before we look more closely at rhetorical criticism as a research method, we need to spend some time with the word "rhetoric." As we talked about earlier, rhetoric is an ancient concept dating back to the Ancient Greeks in the fifth century B.C.E.

The modern word "rhetoric" has several negative associations. From the politician who is "all rhetoric and no action," to a speech "full of rhetoric" but lacking substance, to rhetoric as deceptive practice. However, to a communication scholar, rhetoric and rhetorical criticism are powerful parts of our discipline. Scholars have long viewed rhetoric as the art of persuasion. For example, in the fourth century B.C.E., Aristotle defined rhetoric as

"the faculty of observing in any given case the available means of persuasion" (Aristotle, fourth century B.C.E./1991). Modern scholars have defined rhetoric in a similar fashion. Cathcart (1991) argues that "rhetoric … refers to a communicator's intentional use of language and other symbols to influence or persuade selected receivers to act, believe, or feel the way the communicator desires" (p. 2). Kuypers (2005) defines rhetoric as "the strategic use of communication, oral or written, to achieve specifiable goals" (p. 5). Foss (2004) takes the process one step further, noting that rhetoric has the power to shape how we perceive reality. Foss writes, "reality is not fixed but changes according to the symbols we use to talk about it. What we count as real or as knowledge … depends on how we chose to label and talk about things" (p. 6). Rhetoric is an important part of our discipline with the power to change our beliefs, attitudes, and actions, and even alter how we understand the world around us. The criticism of rhetoric plays an important role in understanding how people may be influenced by symbols. A rhetorical critic, therefore, seeks to recognize how people understand and respond to symbols, and how the use of symbols can shape our perceptions of reality.

Rhetorical Criticism Defined

Rhetorical criticism as part of modern education started in the early 1900s, and focused on speakers and their speeches. The most common research was the "Great Man" criticism (e.g., an important person giving an important speech on an important occasion). We admit sexism was involved in "Great Man" criticism, but at this point in history, men gave most of what were considered significant speeches. However, as we all know, the times have changed and powerful women giving momentous speeches are now part of our society.

The scope of what contemporary rhetorical scholars critique has expanded considerably since the 1900s. We've moved well beyond just looking at speeches (though criticism of a speech is still central to rhetorical criticism). The communication to be critiqued is now called an artifact. An artifact is an identifiable moment of communication from a specific time, place, and person(s). As Foss (2004) notes, an artifact is any tangible evidence a communication act occurred.

As we move closer to the actual process for conducting a rhetorical criticism, we must distinguish between being a popular critic versus being a rhetorical critic. Pierce (2003) argues that popul ar critics evaluate based on personal preference or taste. A popular critic seeks to influence the general public's perception. For example, movie reviews, ESPN commentaries, and ratemyprofessors.com are sources of popular criticism. A rhetorical critic, however, evaluates artifacts based on rhetorical theories and principles. According to Pierce, a rhetorical critic must be prepared to defend their analysis and criticism, defend the standards and methods used to conduct their criticism, and defend the effectiveness of their criticism.

Possible artifacts include

1. A compelling speech
2. A fascinating sermon
3. An effective essay
4. A thought-provoking interview
5. An interesting narrative or story
6. An engaging television show (or a group of similar television shows)
7. A stimulating public demonstration
8. An inspiring song lyric (or set of lyrics)
9. A curious political campaign
10. An eye-grabbing roadway billboard
11. Any other artifact from a communication moment, which surrounds us every day!

Consider our opening situation with the gay marriage yard signs. We have a broad variety of artifacts from which we can choose for a rhetorical criticism. We could stick with just the yard signs, but the limited text may not provide enough communication for a beginning rhetorical scholar. So, let's consider what other related artifacts we can choose. We could critique the websites or the Facebook presence of either or both

campaigns; we could critique a collection of editorials or letters to editors about gay marriage from major newspapers. We could critique a speech (or multiple speeches) from one (or more) politicians. We could critique statements from popular figures in society (e.g., athletes, actors, and musicians).

Part of your task as a rhetorical critic is selecting an artifact for analysis. Hart and Daughton (2005) and Foss (2004) provide a good process for selecting an artifact for a beginning scholar. Foss recommends starting the process by listing what you like or dislike. Yes, you can critique something you find annoying. In fact, some scholars prefer to select an artifact they dislike. Prepping and writing a rhetorical criticism is a time-consuming task. If you start off with something you like, you may be tired of the subject by the time you are finished with the criticism. Picking something you dislike, on the other hand, has no similar downside. Foss also suggests that you may decide to select something you find confusing and want to better understand, or something which grabs your interest. However, Hart and Daughton (2005) caution you must have a solid argument for why you selected a specific artifact. Not all artifacts are created equal, and we must avoid "criticism-by-whim" (Hart & Daughton, p. 32). Your argument for selecting an artifact may focus on the historical importance, the societal influence, or the political prominence of the artifact.

Our Minnesota gay marriage artifacts have the advantage of drawing on historical (potential to amend a state constitution), societal (gay marriage has broad social implications), and political (politicians have taken sides on the issue) significance.

Selecting a Theoretical Approach for a Rhetorical Criticism

Once you have selected your artifact, you need to select a rhetorical theory to frame your criticism. A rhetorical theory is used to filter the symbols in the artifact so we can see new insights about the artifact. The theory is really a set of standards used for evaluating the artifact. Selecting a theory is important, since the theory will guide the direction of the criticism. Don't worry about selecting the best theory. No particular theory is "best" for analyzing an artifact. A lot depends on what it is about the artifact that you find interesting. What questions do you have about the artifact? Your interest and questions should help determine the approach appropriate for your analysis.

We do not have the space in one chapter to provide details of all the possible approaches available for a rhetorical criticism. Dozens of books and entire undergraduate and graduate classes are devoted to exploring rhetorical theories. You may decide that rhetoric and rhetorical criticism is your "thing" and end up reading the books and taking many of the courses! Instead, we provide a framework for three of the most common methods used in rhetorical criticism. When you pick your specific rhetorical theory, you may need to do some additional readings on the method to expand your understanding to perform the criticism.

Neo-Aristotelian Criticism

The first rhetorical approach we will "unpack" comes from our classical Greek roots. An understanding of neo-Aristotelian criticism (also known as classical or traditional criticism) is based on the classics of Ancient Greece and Rome, primarily the writings of Aristotle and Cicero. You may decide to use a neo-Aristotelian approach if your artifact is a speech. Neo-Aristotelian has limited use for other types of artifacts.

Neo-Aristotelian criticism focuses on the five canons of rhetoric, and is primarily used for critiquing speeches. The Greeks developed the concepts imbedded in the five canons and the Romans codified the five canons as part of rhetorical education. Cicero is recognized as the first person to formally list the canons in his work *De Inventione*. The five canons are invention, organization, style, delivery, and memory (though memory gets little attention in contemporary neo-Aristotelian criticism, and is sometimes humorously referred to as the "forgotten" canon).

Most neo-Aristotelian criticism focuses on the canon of invention. Invention in rhetoric is different than our popular understanding of creating something new (e.g., building a better mousetrap). Invention in rhetoric is the discovery of ideas and arguments for use in a persuasive appeal. Invention critiques how a speaker uses logos, ethos, and pathos to persuade an audience toward a speaker's goal. Aristotle's *Rhetoric* is the foundation for logos, ethos, and pathos as artistic proofs used in persuasion. Inartistic proofs are factual elements such as laws, statistics, oaths, and contracts. Inartistic proofs can be used to build an argument, but artistic proofs are more

adaptable to the persuasive goal of the speaker.

Logos critiques the speaker's reasoning, arguments, and use of evidence. Ethos evaluates the speaker's credibility and character, especially as related to the topic, occasion, and audience for the speech. Ethos is rather unique, since the standards for critiquing pathos are more in the hands of the audience than speaker. Pathos explores the speaker's attempts to emotionally connect with the audience. Weak pathos may induce sympathy with the speech; strong pathos will arouse empathy. For example, the speaker may tell a moving story and hope the audience will bond with characters or situation in the story.

Reinard (2010) provides an effective neo-Aristotelian checklist based on the work of Lewis and Tabor (1966).

Neo-Aristotelian Checklist

1. Ethos:

   Is the speaker intelligent?
   Does the speaker reveal good character?
   Is the speaker a person of good will?
   Is the speaker telling the whole truth?
   Is the speaker credible?
   Does the speaker's reputation enhance the speech?

2. Pathos:

   Does the speaker establish identification with the audience?
   What types of appeals are used?
   Are appeals specific and concrete?
   Does the speaker stimulate attention and interest?

3. Logos:

   Does the speaker proceed from assumptions and hypotheses which are fair and reasonable?
   Is the speaker's analysis of the subject complete and clear?
   What types of argument are used?
   Does the speaker's reasoning meet appropriate tests of validity?
   Are the supporting materials sufficient?
   Are data sufficiently documented?
   Does the speaker substitute emotional appeals for evidence and argument?

The marriage amendment issue had plenty of supporters on both sides. A neo-Aristotelian criticism focusing on one or more political candidates who took a stance on the issue is a good approach. We could easily collect statements from the candidates' webpages, statements provided to newspapers, statements made during political debates, and statements from the candidates' standard stump speeches (and every politician has a standard stump speech!). The Internet is a blessing to rhetorical critics who can rather easily collect all these sorts of artifacts with a series of web searches. Once we have the package of information, we can decide if we want to focus on just one speech or on a composite drawn from the variety of artifact sources at our disposal. Remember, we will need to have a good argument for why we decided to limit or expand the scope of what we include as our artifact. Then we can use the Reinard (2010) checklist to work our way through the neo-Aristotelian criteria and see what criticism emerges.

Metaphor Criticism

The second rhetorical approach we will explore is metaphor criticism. A metaphor is used when the qualities of

one concept are used to characterize the nature of a person, thing, or idea. A critic needs to be careful about confusing a simile with a metaphor. A simile is easily identified by the use of "like" and "as". An example may be helpful.

> Metaphor = My friend is a tiger on the dance floor stalking its prey.
> Simile = My friend moved across the dance floor *like* a tiger stalking its prey.

While we do not encourage the use of *Wikipedia* for scholarly work, the site does provide an effective list of fairly common metaphors (http://en.wikipedia.org/wiki/List_of_English_language_metaphors). A few minutes reviewing the list may prove helpful for identifying metaphors in an artifact.

A critic using the metaphor approach analyzes artifact(s) by identifying the metaphor(s) used in the artifact. The critic then evaluates the metaphor(s) to better explain how the communication may influence our beliefs, values, and actions. The key in metaphor criticism is to determine what qualities are highlighted or repressed by the metaphor, and what those qualities say about the artifact. Consider our earlier example about the tiger-friend. The animal metaphor brings to mind many qualities about a tiger—a tiger is a large, powerful, and strong carnivore and predator who attacks and feeds on other animals. A quick critique of our tiger-friend on the dance floor does not paint a pretty picture. Consider how the critique may change if the artifact is "my friend is a tiger on the football field stalking its prey." What may have been an unflattering image of a dancer turns to a compelling picture of an athlete.

Let's consider an approach for how we might conduct a metaphor criticism. The marriage amendment produced a bounty of posts on social media sites—from Facebook, to Twitter, to Tumblr, and other sites. We could gather the posts, from one or multiple sites, and analyze what metaphors are in play. Metaphor criticism is a good opportunity for visual analysis. A web images search of "vote no Minnesota" and "vote yes Minnesota" produces thousands (actually hundreds of thousands!) of hits. Identifying, analyzing, and drawing out the implications for the dominant metaphors in each position might be a fascinating study.

Fantasy Theme Analysis

The third popular rhetorical approach we explore is fantasy theme analysis (also known as symbolic convergence theory). Fantasy theme analysis is part of a larger group of theories defined by Brock, Scott, and Chesebro (1990) as dramaturgy. If you choose to continue your studies in rhetorical criticism, you will explore narrative analysis and Burkeian dramatism, the other areas of dramaturgy.

The fantasy theme approach to rhetorical criticism was developed by Ernest Bormann at the University of Minnesota. Fantasy theme analysis is an effective method if your interest is how communication (evident in your selected artifact) can shape perceptions of reality. Fantasy theme analysis works from the concept that a group can develop a shared viewpoint called a "rhetorical vision" (Bormann, 1972, p. 398).

A rhetorical vision occurs when a series of fantasy themes merge to form a fairly cohesive viewpoint. The rhetorical vision provides the participants with shared expectations, which are revealed in their shared vocabulary. A critic can work to build a shared vocabulary by identifying the heroes, villains, victims, storylines, scenes, repeated stories, insider humor, and other commonalities within the group's communication. While a fantasy theme analysis can develop from a single artifact, the approach works well when you have a set of artifacts all from the same group. The rhetorical vision emerges when similar patterns emerge across the various artifacts.

Finally, what artifacts might we consider if we were interested in a fantasy theme analysis of the marriage amendment question? Let's return to social media. Facebook has become a dominant method for gathering together people who share opinions on social issues. Both Minnesota campaigns have Facebook pages to support their cause. The pages have posts from supporters and detractors. Sometimes the posts are simple statements of support (e.g., "I'm voting no!" or "I support the 'Vote Yes' campaign."). However, a number of the posts are personal stories about how a yes or no vote will impact their personal lives, families, and communities. The stories provide a perfect opportunity for a fantasy theme analysis. We can use the stories for identifying the heroes, villains, victims, and other components which form a fantasy theme.

Other Approaches in Rhetorical Criticism

A variety of other approaches are available to rhetorical critics. Just a few are social movement criticism, genre criticism, cluster criticism, feminist criticism, Marxist criticism, cultural criticism, ideological criticism, and postmodern criticism. Now we can see how a scholar can spend an entire career studying rhetoric and rhetorical criticism!

One final note on rhetorical criticism. Boundaries between the various rhetorical approaches are subjective and concepts may cross over between the approaches. While one criticism may use a Marxist theory and another uses a feminist theory, this does not mean that the criticisms are in conflict. The various approaches each provide their own insights into the artifact(s). Indeed, a rhetorical critic may employ more than one approach in a variety of combinations.

Organizing a Rhetorical Criticism

Writing up a rhetorical criticism can take many forms. However, a basic criticism does follow some general guidelines. Following the structure we outline below will help a beginning critic ensure that all the bases are covered (see how we slipped a sports metaphor into the explanation?).

Rhetorical Criticism Outline

1. Your description of the communication/artifact/symbols to be critiqued. Your description may include a justification for the artifact you've selected. What makes the artifact worthy of your (and your readers') time and attention?
2. Your description of the situation where the communication occurred. What social, historical, economic, political, and other circumstances are relevant to the artifact?
3. Your explanation of the rhetorical approach, which will guide your criticism. You may need to include a justification for the rhetorical approach you selected. Be thorough and detailed in explaining the rhetorical approach. Your explanation sets the standards for implementing your criticism.
4. You may choose to include a section discussing other studies which have used the same rhetorical approach.
5. Your critique of the artifact using the selected rhetorical approach. Include specific examples from the artifact to illustrate how the criticism applies.
6. Your discussion of the implications of the criticism. What can we learn from your criticism? The implications are critical. Zachry (2009) argues that rhetorical criticism must be more than just identifying and labeling the parts in an artifact. The criticism needs to provide an interpretation of what the identified parts mean.

Do not worry if you have the "correct" interpretation in your criticism. Artifacts can have many meanings, and different critics may see different meanings. Your obligation is to present strong arguments which support your critical insights. The strength of an argument is critical in rhetorical criticism. Since we do not have objective standards of analysis in rhetorical criticism, your arguments and how well you support your arguments is the key.

Summary

This chapter was a how-to guide to rhetorical criticism. Rhetorical criticism is a more critical/cultural method, but it can also lean interpretive, or social scientific, depending on the researcher's approach. It is a multi-faceted method. Hopefully, after reading this chapter and the accompanying student paper, you feel comfortable enough to try your own rhetorical criticism. The next chapter, Chapter 20 is a how-to guide to critical/cultural methods.

Key Steps & Questions to Consider

1. There are numerous definitions of rhetoric.
2. Rhetorical criticism means conducting an analysis of a rhetorical "act."
3. What is the difference between being a popular critic and a rhetorical critic?
4. The communication critic's "critique" is called an artifact.
5. No particular theory is "best" for analyzing an artifact.
6. Neo-Aristotelian criticism focuses on the five canons of rhetoric and is primarily used for critiquing speeches.
7. Logos critiques the speaker's reasoning, arguments, and use of evidence.
8. Ethos evaluates the speaker's credibility and character, especially as related to the topic, occasion, and audience for the speech.
9. Pathos explores the speaker's attempts to emotionally connect with the audience.
10. A critic using the metaphor approach analyzes artifact(s) by identifying metaphor(s) used in the artifact.
11. Fantasy theme analysis is an effective method if your interest is how communication (evident in your selected artifact) can shape perceptions of reality.

Activities

1. Selecting Artifacts. Review the list of possible artifacts provided in the chapter and think about all the forms of communication you are inundated by each day. Take just one day and make your own list of possible artifacts for rhetorical criticism. Pay attention to the music you listen to, the TV shows you watch, the news you read, and the billboards, signs, posters, and fliers you see around you. Bring your list of artifacts to class and see who can make the strongest argument for why an artifact is worthy of criticism.
2. Selecting a Rhetorical Approach. Using one of your artifacts from Activity 1 (or the gay marriage artifacts), discuss how each of the three approaches we reviewed in the chapter may provide diverse critical insights.
3. A Rhetoric Dictionary. Starting with the list of terms in Key Terms, develop (individually or as a class) your own dictionary of terms in rhetoric. Continue to build on the dictionary as your study of rhetoric and rhetorical criticism progresses.

Discussion Questions

1. What other artifacts could we collect and critique as part of the Minnesota marriage amendment?
2. How does Activity 1 illustrate how each approach illuminates different persuasive strategies? Remember, no one rhetorical approach is best, nor is any critique the "correct answer." Each approach provides different viewpoints of the artifact(s).

Key Terms

Aristotle
Artifact
Artistic Proofs
Criticism-by-Whim
Ethos
Fantasy Theme Analysis
Five Canons of Rhetoric
Inartistic Proofs
Invention
Kenneth Burke Society
Logos
Metaphor Criticism
Neo-Aristotelian Criticism
Pathos
Popular Critic
Rhetoric

Rhetorical Critic
Rhetorical Criticism
Symbols
Trivium
Symbolic Convergence Theory

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Undergraduate Rhetorical Criticism Paper

Secondhand Smoke and the Five Canons of Rhetoric

Steven Arning

Smoking cigarettes has been determined through scientific research to be harmful to a person's health. Smoking has since been determined as being the number one cause of preventable death in the United States. Organizations now provide information about smoking and help in people's efforts to quit smoking. One television advertisement put on the air by the American Cancer Society concerns the risks associated with secondhand smoke will be discussed. Rhetorical criticism will be provided on the advertisement using the "Five Canons" rhetorical criticism method. The advertisement's invention, organization, style, delivery, and memory will be analyzed. The use of pathos in this advertisement is the most relevant aspect and its effectiveness will also be explored.

The student has a nice introduction. He leads us into the paper with a crisp attention-getter and a statement on the significance of the issue. He sets up the rhetorical approach—the five canons, with a specific focus on pathos.

A brief summary of the advertisement is a crucial part in understanding the criticism on the ad. The TV spot opens with a white screen and the words, "smoking sections in restaurants …" in the center of the screen. There is a sound of people talking in the background; the sound is much like that of a restaurant. The screen then shows a man's face, probably in his early 30s, and he says with sarcasm, "A smoking section in a restaurant?" He then says, "that's like a peeing section in a pool." The ad then flashes to images of cigarettes burning on the edge of a dinner plate, and a man exhaling cigarette smoke. A fact is then displayed on the screen, "a half hour exposure to 2nd hand smoke dramatically increases a person's short term risk of a heart attack." The American Cancer Society's logo is displayed on the screen. The man then says "Hey it's your air."

The student's description of the artifact is solid. His description provides both the text and effective visual descriptions so a reader can "see" what occurs in the TV ad. He could strengthen the section by explaining how the ad is significant and worthy of criticism. He might argue significance by listing the amount of money spent airing the ad, or responses from supporters, critics, and the general audience to the ad.

The first aspect of the advertisement to be discussed is the invention of the commercial, or the speaker's lines of arguments or ideas. The speaker makes a metaphor to describe a similar situation to a smoking section in a restaurant. The situation described in the metaphor is simple and one everyone, no matter what audience, is familiar. His message is simple, display the facts, "a half hour exposure to 2nd hand smoke dramatically increases a person's short term risk of a heart attack." And let people think about it for themselves. The message uses pathos extremely effectively and will be discussed in further detail later in this criticism. His use of inartistic proofs, such as facts lies mainly in the one line about exposure to secondhand smoke, and the credibility lies in the company that is backing the advertisement, The American Cancer Society. It is a company that is largely recognizable and credible.

The student reintroduced us to his chosen rhetorical approach. Notice that he plans to weave metaphor in with his use of neo-Aristotelian criticism. Steven could use more description and explanation of both the neo-Aristotelian approach and metaphor to enhance his criticism. The section gets a little confusing, since it starts with a focus on invention, but then shifts more to metaphor. He may have considered moving the sentences about the organization's credibility to the previous section when he describes the artifact. The credibility can help support the significance of critiquing the ad.

The organization of the advertisement was very effective. A metaphor was used to catch the attention of the audience, which for this particular commercial is just about anyone who goes to restaurants occasionally. They caught the audience's attention and then provided facts to back up the metaphor, a very effective order. The images of the burning cigarettes and the person exhaling smoke give the viewer time to take in the metaphor and begin to understand it before they are told the facts to support the claim. The commercial would not be as effective had it been in the opposite order. The audience may not have "tuned in" as early on had they not had that "attention grabbing" metaphor at the start of the commercial.

The student's critique of the ad's organization relies extensively on metaphor. As he was developing his criticism, he may have decided that metaphor may have been a stronger approach than the five canons of rhetoric.

The style of the advertisement is definitely an aspect that adds to the feeling of the ad—fear of the facts. The whole ad is in black and white and there is no music, and the crackling sound of the burning cigarettes is amplified. It appears to be very serious from the start and it's clearly not going to provide "happy" news. There is simply a feeling of fear; the information you are hearing is going to scare you. The ad is blunt, and simply puts out the facts. There are little distractions throughout the 30 seconds of video. The words are clearly displayed on blank backgrounds which forces people to read the facts with nothing else to look at.

The student's section on style is effective. The description and analysis combine to provide a strong critique. However, since the two previous sections worked in metaphor, the reader may wonder why the metaphor approach was not integrated here as well.

The delivery of the information is very effective in its "down to earth" style. The speaker in the advertisement speaks in a simple, everyday way that could never been seen as hard to understand. He uses no sophisticated words and speaks of metaphors anyone could relate to. He speaks in a sarcastic tone, as though the things he is saying are common sense. It gives off the feeling that he is casually telling you something he has realized, as most people find out new facts, hearing them by word of mouth from another friend or affiliation. The speaker also has a smirk of sorts on his face when he discusses the metaphor, again implying that having a smoking section in a restaurant is a ridiculous idea that should never have been implemented, and has been the wrong way of doing things for years. The fact that the typed words on the screen have "…" at the end of each line is also an effective way to keep the viewer anxious to hear what's coming next. They are again, "tuned in" to hear the next line.

The memory for the advertisement is probably the most difficult part to understand. The speaker appears to have a basic knowledge of what secondhand smoke can do to a person. He knows a slightly more than the average person because he is trying to explain a fact to people that not many people know. There was obviously research performed by the American Cancer Society in order to provide true and accurate facts. The ad will stand out in viewers mind in the future because of the new information they have learned, that even sitting in a restaurant can be harmful to a person's health and secondly the overall feel of the commercial will hopefully stand out in the audiences' minds. The overall feel of the advertisement ushers in the final topic, the use of pathos in the ad.

The student has discovered why the canon of memory is often neglected in neo-Aristotelian criticism. Critiquing the effectiveness of a speaker's memory, especially when the artifact is more than a speech, can be complicated. The student, however, is effective in critiquing memory from the dual perspectives of both the speakers in the ad and the viewers who watch the ad.

The use of pathos in this advertisement is the most dominant aspect of the advertisement. Pathos can be defined as "the quality or power, especially in literature or speech, of arousing feelings of pity, sorrow, etc." In this particular advertisement the feeling that is portrayed is one of fear, and anxiousness. Viewers are realizing that they have possibly been in danger the last time they were in a restaurant and they will potentially be

placed back in that same danger the next time they go out to a restaurant or event. The fear is that are helpless in a restaurant where they are slowly inhaling smoke with every breath. The way the ad is designed adds to the fear. The black and white look to the ad and the manner by which the speaker presents the information create a feeling this is a serious deal, and not a joke. The image of the person exhaling the smoke is frightening because it portrays the idea a person sitting in the non-smoking section of the restaurant is inhaling and is possibly unaware.

The student identifies a central purpose for the American Cancer Society advertisement. The ad is more than informative. The ad is designed to influence viewers' attitudes about second-hand smoke, and maybe compel viewers to action. The student may find a tighter application for the critique by focusing on pathos and metaphor instead of all five canons. Finally, the student should have provided a source citation for the quotation defining pathos.

This is a very effective and educational advertisement for the American Cancer Society. The arguments are clearly displayed with the use of a metaphor as well as clearly stated facts to support the overall argument. The imagery is simple, yet effective in providing fear-invoking scenes. Most Americans have a simple understanding of what smoking does to a person's body; if you smoke, you are slowly killing yourself. This commercial adds onto that general knowledge by describing a situation the average viewer has most likely been subjected to and describes the dangers associated with that situation.

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20 Critical/Cultural Methods

by James P. Dimock

Chapter Outline

What Will I Learn About Critical/Cultural Methods?

In 1843, Marx (1978) observed that, in his German homeland, "everything is being forcibly repressed" (p. 12) and so it was necessary to engage in "a ruthless criticism of everything existing, ruthless in two senses: The criticism must not be afraid of its own conclusions, nor of conflict with the powers that be" (p. 13). The concept of "ruthless criticism" defines critical theory. Critical research is called critique (sometimes spelled "kritik" to acknowledge the German origins and to separate critical theory research from other forms of criticism such as literary criticism or rhetorical criticism). In this chapter you will learn how to engage in critique from both a Marxist and a postmodern perspective.

What Is a Critique?

Criticism must begin with something to criticize. This focus of our criticism, often called an artifact or a text, is something we are interested in evaluating. The "text" is the communication act or event we wish to study. Because we are communication scholars, we are interested in symbolic objects (the use of symbols to influence the way people understand and interact with the world). A text may be narrowly defined (a single speech or communication situation) or broadly defined (the discourse of a given period or epoch). Typically, for a text to be an object of a critique, it must have some boundaries—something which separates the text from the context (the objects which surround the text and are not part of it).

The process of identifying a text begins with a description of the text. If the text is well known, the description may not be detailed. An unfamiliar text, however, requires the critic to depict the text in enough detail that readers can understand and appreciate it. The description is then typically followed by a justification for the criticism. The critic must explain why this particular text is suitable or appropriate for criticism. The importance and relevance of some texts is immediately obvious but other, lesser known or seemingly insignificant texts will require the critic to explain why this criticism should be undertaken.

> Jim, Dan, and Kirstin published a critique of the movie *Brokeback Mountain* in 2013. The movie was fairly well known, received critical acclaim, was nominated for eight and won three Academy Awards (won for Best Director, Best Original Score, and Best Adapted Screenplay). They did not have to spend a lot of time describing the movie. However, just winning a stack of awards does not mean a movie (the text) is suitable for criticism. Jim, Dan, and Kirstin argued the film had the capacity to influence perceptions of samesex partners and same-sex marriage (an issue which has seen a monumental shifting of opinions in recent years). Once the text has been described and the decision to critique it has been justified, we are ready to begin the actual critique.

In our everyday language, we often think of criticism as some kind of negative judgment about us or our work, but not all criticism is negative. Say, for example, that I think Ridley Scott's film *Alien* is better than the sequel, *Aliens,* directed by James Cameron. I am engaging in a basic form of criticism by comparing and contrasting two similar texts. My criticism of the films is impressionistic since it reflects my impressions or feelings about the two films—I like *Alien* better than *Aliens*. While I like both movies, the original appealed to me in ways the sequel did not. You may disagree because the first film lacked the fast-paced action sequences of Cameron's follow-up. Because we are both reporting our impressions about the films, your feelings are just as valid as my feelings. When we engage in impressionistic criticism, we are really saying much more about ourselves than we are about the object of our criticism. I may like the more cerebral horror sci-fi while you like action-packed shoot 'em ups. But in order to engage in critique at a scholarly level, we need to move beyond talking about our own, personal feelings. Our criticism must become reflexive and it must be based on some criteria or standard of criticism.

What the critic does next depends on how he or she identifies as a critic. A critic who associates themselves with Marxist theories is more than likely engaging in extrinsic criticism, while postmodern critics engage in intrinsic criticism. Extrinsic criticism considers texts and artifacts in relation to some normative standard. Normative standards are most often trans-historical and trans-cultural principles by which a communication practice can be judged. So a Marxist critique, which holds that contemporary industrial practice is wrong because it steals the workers' *labor* and thereby *alienates* the working class, is applying standards which should exist in all times, in all places, and for all persons regardless of the historical or cultural context. All workers own their labor and to alienate them from their labor is, by definition, oppression.

Postmodern critics, skeptical of the metanarratives upon which these norms are based, are much more likely to engage in intrinsic criticism. Every text, every system of discourse, has a logic and organization of its own. Intrinsic criticism confines the focus to the text itself. Recall that Hegel and Marx both maintained that within an object lies its negation, the internal contradiction which threatens the integrity of the text. By identifying these contradictions, dilemmas, and paradoxes, the postmodern critic destabilizes meanings and invites new interpretations of the text.

Marxism vs. Postmodernism: A Matter of Perspective

Marxism and postmodernism share a commitment to ethical and political ends. Their differing perspectives lead them to approach research in different ways and to undertake research for different reasons. Marx did not believe genuine reform could come from academics and intellectuals. Only the proletariat, the workers themselves, could truly change the conditions of their lives and throw off oppression. In *The Communist Manifesto,* Marx and Engels (1964) write:

> The Socialistic bourgeois want all the advantages of modern social conditions without the struggles and dangers necessarily resulting therefrom. They desire the existing state of society minus its revolutionary and disintegrating elements. They wish for a bourgeoisie without a proletariat. The bourgeoisie naturally conceives the world in which it is supreme to be the best. (p. 107)

Intellectuals and academics are members of the petite bourgeoisie and thus their interests, according to Marxists, will always be those of the bourgeoisie. Their aim is not to restructure society so there is no longer class, and thus no longer class conflict, but to provide the working class with the material benefits of the modern, industrial world while maintaining themselves as a privileged elite.

A strictly Marxist approach to communication research, then, emphasizes praxis, or the practical application of theory to the material conditions around us. Because Marxism is a materialistic, historical, and scientific theory, Marxist researchers can avail themselves of any of the social scientific methodologies you have read about in this book. The methods of research matter as much as the motivation for the research and the ends to which research is used. If research works to strengthen working-class and proletarian unity, it is Marxist.

Other theorists see a more active role for academic and communication scholars. Chomsky (1987), one of the most outspoken critics of the capitalist system, argues intellectuals do not have special privileges but responsibilities:

> Intellectuals are in a position to expose the lies of governments, to analyze actions according to their causes and motives and often hidden intentions. In the Western world at least they have the power that comes from political liberty, from access to information and freedom of expression. For a privileged minority, Western democracy provides leisure, the facilities, and the training to seek the truth lying hidden behind the veil of distortion and misrepresentation, ideology, and class interest through which the events of current history are presented to us. (p. 60)

Cloud (1994) argues, along the same lines, that the task of a cultural critique is "to unmask the shared illusions of a society as ideas promulgated by and serving the interests of the ruling class, or those who control the production and distribution of material goods" (p. 145). Ideology is a false consciousness, a screen which separates us from the reality of the human condition. The better we can see and understand the relations of production and understand the workings of power, the more able we are to resist them. Thus, the role of the critic is not to lead the fight for change but to participate in it using his or her understanding of communication to support the struggle for change.

Like Marxist critics, postmodernists are concerned with power and praxis. Their concern differs from Marxists. The postmodernist critic has no specific vision of what society without oppression may look like or if one is even possible. Marxism attempts to construct a basis upon which a socialist society can be built. Postmodernism, on the other hand, is deconstructionist and seeks to deconstruct the systems and forms of oppression (Foucault, 2006).

In his work on "critical rhetoric," McKerrow (1989) offers one of the best explanations of what a critical theorist does. The critic has two tasks. The first is the critique of domination, or the "demystifying [of] the conditions of domination," and the critique of freedom is "a self-reflexive critique that turns back on itself even as it promotes a realignment in the forces of power that construct social relations" (McKerrow, 1989, p. 91). Critical communication scholars look at the practices of domination from a variety of perspectives while at the same time turning criticism back on itself, continually inviting more criticism rather than declaring the final judgment has been passed on a subject.

Summary

This final chapter in the textbook introduced you to how to conduct a critical/cultural critique. As you can see from the chapter, you can approach a critical/cultural critique in numerous ways. The key is to pick one which is a good fit for your research point of view or theoretical stance. We hope after reading the chapter, you feel a little more prepared to carry out this type of study. On a final note, think back to the introduction and the story of Sir Edmund Hillary and remember "even the fearful can achieve." You have finished the textbook, which is one phase of your research methods journey. We wish you all the best in your future research and scholarly endeavors. Stephen and Dan look forward to seeing your work presented at conferences and published in journals.

Key Steps & Questions to Consider

1. Identify the artifact or text to be criticized.
2. Describe the text or artifact so the readers can get a full understanding of it.
3. Justify why the text is worthy of criticism.
4. Explain the purpose and what do you hope to accomplish through the critique.
5. Determine if you are engaging in extrinsic criticism or an intrinsic criticism.

Activities

1. Let's return to our activity from Chapter 4 on the Critical Paradigm. Pull out the activity notes from your backpack/notebook/computer/tablet from the Chapter 4 activity. The notes may help streamline this activity.
2. Divide everyone into groups. Give each group a different issue. The issues are slavery, prohibition, women's suffrage, same-sex marriage, and child sex abuse by priests.
3. Each group will prepare a brief presentation using the process of critique described in this chapter.

Discussion Questions

1. What similarities and differences do you see between rhetorical criticism (Chapter 19) and the critical process (Chapter 20)?
2. How will your research claims about truth and reality be different between an experimental study and a critical/cultural study?
3. Think about what is happening in current politics, sports, or the arts. What events may be relevant for critique?

Key Terms

Artifact
Context
Critique
Deconstructionist
Description
Extrinsic Criticism
Impressionistic
Intrinsic Criticism
Justification
Normative Standard
Praxis
Reflexive
Symbolic
Text

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Undergraduate Critical/Cultural Paper

The Ethics of Pimpthisbum.com

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"When Sean Dolan saw signs being carried by homeless people," he didn't see a economic crisis. According Sabo (2009) "[H]e saw an opportunity" (para. 1). Sean and his father, Kevin, had approached a homeless man named Tim Edwards with a proposition. Exchange his usual "will work for food" sign with one reading "Pimpthisbum.com." For his efforts, the Dolan's would then pay him $100 a day.

So a website dedicated to helping the homeless was born. Visitors to the website can buy him anything from a cheeseburger to laser hair removal to a college education. Edwards joked to CBS (2009) that he is "the world's first online bum" (para. 10). But, as Cullers (2009) has pointed out, "some homeless advocates are upset over the word 'pimp' and are alleging that Tim is being exploited" (para. 1). The Dolan's website has gotten the attention they wanted. Attention for their advertising firm. They have made the front pages of newspapers all over the world and appeared on nearly every single major news network. The Dolan's have achieved their ultimate goal of proving that they can sell anything. So if Pimpthisbum.com is able to raise money to help the homeless, isn't a little bit of exploitation OK? While some have argued that pimpthisbum raises our awareness of the homeless and puts a needed face on the issue, I argue, based on the critical ethical theory of German philosopher Jurgen Habermas,that the Dolan's have engaged in unethical communication.

In the first two paragraphs, Suzanne does two things. First, she gives her readers a description of the text she has selected for criticism. Her description provides readers with enough information about the text to be able to understand what is going on without getting bogged down in unnecessary details. Second, Suzanne justifies the text as an object of criticism. On the one hand, the website is trying to do something about the problem of homelessness, but on the other hand, Suzanne questions the ethics of this sort of appeal.

Habermas's philosophy of ethical communication is, to quote Burleson and Kline (1979) "formidable," "obscure," "dense and technical" but Habermas is also one of the most important social philosophers of the 20th century and one of the most important of the critical theorists. Because his work concerns both communication and ethics, his framework is appropriate to use in critiquing pimpthisbum.com.

For Habermas, communication is unethical when it undermines what he called the lifeworld and, according to Foss, Foss and Trapp (2001) the lifeworld entails communicative action. Habermas asserted that when communicative action is blocked, unethical impersonal systems take over. Marmura (2008) points out that while all complex societies require some level of systems, "social inequality and ultimately … social pathology originate" when those systems become "unmoored from the interests and values of the communities" (p. 4). In order to prevent the colonization of the lifeworld by systems, we need to engage in communicative rationality which requires the use of constetives, regulatives, and avowels.

First, ethical communicative action requires the use of regulatives. Regulative utterances negotiate the relationship between the people. So when I ask you if you're ready for me to speak, it says something about what I think of the relationship between us. These regulatives result is mutual understanding. Unethical communication systematizes the relationship, defining it through noncommunicative means like power differences and structures.

Second, ethical communication must involve avowels. Avowels are speech acts relative to our feelings, affections, and intentions. Foss, Foss, and Trapp (2001) explain that avowels don't refer to the world around us or to our relationships with others but reflect our internal states and the validity of an avowal is determined by "the sincerity of the stated intentions" (p. 259). Unethical communication, then, involves the use of dishonest or insincere avowals.

Finally Habermas (1979) claimed that in order to present an ethical message, the author must present constatives. Habermas says in *Communication and the Evolution of Society* that constatives "imply an

unmistakeable validity claim, a truth claim" (as cited in Foss, Foss, & Trapp, 2001, p. 257). For instance, this round has five people. These statements that can be validated protect the world from manipulative systems. Unethical communication occurs when regulative are inappropriate, when avowals are insincere, and constatives are not valid.

Now that we understand Habermas's criteria for ethical action we can now apply those criteria to pimpthisbum.com.

> Suzanne does a good job of explaining a complicated critical theorist like Habermas, although some might argue she has oversimplified his work. Others will see her explanation as appropriate for undergraduate research. She does make an effort to justify using Habermas' theory of ethical communication as a normative standard by which to evaluate the ethics of a communicative act. Habermas is an important figure in critical theory. Suzanne could spend more time developing a review of Habermas' work and could strengthen her paper if she used more primary sources instead of relying on secondary sources.

First, unethical messages, involve inappropriate regulatives, or a distorted understanding of relationships. It is important to bear in mind the purposes of the relationship between Edwards and the Dolans. It is about raising the profile of the Dolan's marketing firm. By making Tim popular, they say, "we can make anything popular." And pimpthisbum is riddled with links to major media outlets that have covered the story. But what this does is to commodify Edwards, to turn him into an object to be marketed and sold for the Dolan's profit. Thus the relationship between them is inappropriate and pimpthisbum is unethical according this criteria.

Second, a rhetor must use sincere avowels. In public statements, Sean and Kevin Dolan and Ascendgence Tactical Online Marketing, repeatedly depict pimpthisbum as a way to help the homeless. For example, Edwards has said, "The whole idea of this project is to get people off the street" (as cited in CBS, 2009, p. 10). But we already know that isn't true. The whole idea is to raise the public profile of the Dolan's and their advertising firm, Ascendgence. More importantly, it undermines our ability to treat Edwards's avowals as valid. Edwards is being paid by the Dolans. We simply cannot assume that he is any more sincere than a $100 a day buys. If we can't accept Tim's avowals at face value, then we have to conclude that pimpthisbum is unethical according to yet another of Habermas's criteria.

Finally, in order to present an ethical message, the author must first present constatives- or asserted truth. In Habermas's theory of ethics, constatives are the ultimate check on systemic colonization of the lifeworld because they can be verified. We can hold statements up to reality and see if they line up. Mamura points out that when unchecked, "bureaucratic standards of rationality or the profit orientation of commercial enterprise" the "ability to question, or even recognize the rules which govern [our] actions [are] greatly diminished." By putting an altruistic mask on an entirely business motive, the Dolan's violate the third and final of Habermas's criteria.

Now that we have examined how pimpthisbum.com fails to fulfill Habermas's model, we must return to our research question: So if Pimpthisbum.com is able to bring attention to the problem and raise money to help the homeless, isn't a little bit of exploitation OK? And to answer this question we will look to two implications. First because Edwards's voice is constrained by commercial interests and second because Edwards actually obscures the face of homeless.

First, Edwards's ability to function as voice for the homeless is distorted by commercial interests. Habermas's Edwards is repeated described as funny, upbeat, educated, and does not blame others for being homeless. This explanation of homelessness is great…if you are ultimately not interested in dealing with the problem of homelessness. A report available at the website for the National Coalition for the Homeless (2009) demonstrates a clear link between rising homelessness and the foreclosure crisis. Certainly, some people are homeless because they made bad choices… many are victims of mental illness, domestic violence, lack of affordable housing and other factors beyond their control. If the faces of tragic circumstances don't sell products, this helpful exploitation will not even presented.

Finally, positioning Edwards as 'the face' of homelessness obscures important dimensions of the problem. The Dolan's have made a "homeless man the symbol of all homelessness" (Daily Write). But Edwards isn't a poster-child for homelessness the way Rosa Parks came to symbolized segregation or Matthew Shepherd became a face for victims of hate crimes. The difference is rather clear: 'the symbol of homelessness' in

America should look like the homelessness in America. According Pimpthisbum's (n.d.) website, they "but we humanized homelessness by focusing on a particular individual" (para. 4). This particular homeless individual, however, looks and sounds a lot more like the demographic the Dolan's are interested in than the typical homeless person. According to the National Coalition for the Homeless (2007), 51% of the homeless population are, like Tim Edwards, male. But the homeless are far less likely to be white, like Edwards. The fastest growing segment of the homeless population is families with children. Edwards, an educated and articulate white man, is not the face of homelessness and doesn't give the homeless a voice. Instead his image obscures the voices of millions of people. It isn't just that the Dolan's are capitalists. It is that they let their interest in system of profit obscure important issues and questions about an important problem that is getting worse.

Suzanne applies extrinsic standards in her evaluation, putting her scholarship at the Marxist end of the critical spectrum. Second, she uses actual statistics about homelessness in the United States to point out the conflict between the image of homelessness created by the Dolans and the reality of homelessness. The Dolans' discourse contributes to a false consciousness which Suzanne's critique attempts to correct.

Although, the Dolans seemed to make a difference, their help has proven to be unethical, and potentially harmful to our future. The goal of my paper is to not just engage in a criticism of communication but to be a critical communicatior just as Habermas engages in communicative action. Buying someone a virtual cheeseburger does not ethically confront the issue of the homeless. To put it simply, it is not about pimping but rather caring and communicating… and that is something we can all do.

In the conclusion, we get a clear indication of praxis, and discover that Suzanne's motives are not just to critique pimpthisbum.com, but to confront the problem of homelessness.

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