Asking Questions about Communication

Chapter 2

Defining Communication

- Communication comes from the Latin word, *communis* which means “to make common”
- Most definitions of communication emphasize one of two different views about making things common

Two Views of Communication

- **Information exchange perspective**: Concerned with how communication can be used as a tool to transfer information from a source to a receiver
- **Meaning-based or constitutive perspective**: Concerned with how perceptions of reality are shaped by communication processes

A Word from our Authors...

- Frey, Botan, and Kreps (2000) acknowledge these two views on “making things common” with their definition
- *Communication refers to the processes by which verbal and nonverbal messages are used to create and share meaning*

The traditional communication model can be used to examine the types of research done by communication scholars

- people
- messages
- channel
- contexts

The pivotal element of the four is messages

- Contexts of messages
  - Within ourselves
  - To others
  - Within small groups or organizations
  - Via the media
  - Within and between cultures
The other three components of the model are usually studied only as they influence messages:
- people
- channels
- contexts

**Other Disciplines, Other Views**
- Psychology: how self-esteem changes with age
- Sociology: how urban decline influences behavior
- Neuroscience: how priming influences recall

**Our View**
- Communication: How self-esteem influences self-disclosure
- Communication: How graffiti in urban neighborhoods communicates gang culture
- Communication: How persuasive messages can be designed to affect priming response

**Thus, communication research focuses on MESSAGES – messages sent interpersonally, within or between groups, organizations, cultures/societies.**
**The key is COMMUNICATION must be linked to MESSAGE behavior.**

**Areas of Communication Research**
- Researchers must carve out the precise slice of the big communication pie they want to investigate
- Scholars affiliate with colleagues studying similar topics within the professional associations in the communication discipline
  - NCA, ICA, and AEJMC
  - 4 regional associations: Central, Eastern, Southern, and Western States
  - State associations (e.g., KY, OK, TX, VA)

**Basic versus Applied**
- *Basic research* is designed to test and refine theory
- *Applied research* is designed to solve a practical problem
- Regardless of basic versus applied, good research is theory-based research
The Rodney Dangerfield of Terms

- People often misinterpret the word theory and contrast it negatively with practical knowledge.
- A theory is a simply generalization about a phenomenon, an explanation of how or why something occurs.
- More formally: A system of generalizable statements logically linked together to explain, describe, predict, and/or control human phenomena in a given context.

Evaluative Criteria

- Explanatory Power
  - Explains the event or behavior
  - Makes sense out of complex events
  - Focuses on important variables
  - Explains what, how, and why
  - Explains processes and outcomes

- Predictive Power
  - Predicts what will happen
  - More accurate in the physical sciences
  - In social sciences we look at probability

- Parsimony
  - Relative simplicity
  - As simple as possible

- Falsifiability
  - Hypotheses that can be tested
  - If there is no way to prove a theory false, then the assumption it is true is mere guesswork

- Practical Utility
  - Usefulness
  - A good theory provides increased control
Model of Basic and Applied

- Kreps, Frey, and O'Hair (1991) advanced a conceptual model (see figure 2.7)
  - One axis describes the relative emphasis of a particular study on theory
  - The other axis references the relative emphasis on application/practice
- This model is useful for assessing the potential benefits of research studies

Theory (RQ/H) Testing in Action

- Select a research topic
- Choose an appropriate theory
- Craft a hypothesis from the theory
- Test the hypothesis in a study
  - Confirmed = support for theory
  - Not confirmed, need additional research, revise hypothesis, or revise/reject theory

Design-a-Study

- Research Process
  - Conceptualization
  - Planning and designing
  - Choosing method
  - Analyzing/interpreting data
  - Reconceptualization
- Theory Testing
  - Select a research topic
  - Choose an appropriate theory
  - Craft a hypothesis from the theory
  - Test the hypothesis in a study

Justifying Research Topics

- Tucker, Weaver, and Berryman-Fink (1981) argue that all researchers should be prepared to answer these two questions
  - “So What?”
  - “Who Cares?”

Additional Elements

- Directs attention: focus on important variables, how to observe and measure them
- Organizes knowledge: helps to make sense of potentially very complicated human behavior
- Excites inquiry: gets researchers working and talking
**RQs & Hs**

- In research articles, researchers...
  - First explain why they chose their topic
  - Review the relevant literature
  - Articulate the research question or hypothesis that guided their investigation

- These questions or statements usually are designed to accomplish one of two goals
  - To describe communication behavior
  - To relate communication behavior to other variables

**Describing Comm. Behavior**

- “What is the nature of communication behavior ‘X’?”
  - e.g., “What receiver behaviors trigger perceived suspicion?” (J.K. Burgoon, Buller, Dillman, & Walther, 1995)
  - e.g., “What topics do recipients report being teased about?” (Alberts, Kellar-Guenther, & Corman, 1997)

**Relating Comm. Behavior to Other Variables**

- “How is communication variable ‘X’ related to other variables?”
  - e.g., “Is affective orientation related to the reported use of specific types of nonverbal comforting behaviors?” (Bullis & Horn, 1995)
  - e.g., “Is the sex of the siblings related to the amount of verbally aggressive messages?” (Teven, Martin & Newpauer, 1998)

**RQs and Variables**

- To answer an RQ, its “elements” must be conceptually and operationally defined as variables
  - A variable is any concept that can have two or more values
  - A single object is not a variable; it becomes a variable only when it exists in different types or in different amounts

**Independent and Dependent**

- Researchers assume that one variable influences another
  - **IV or independent variable** is the variable that is thought to influence changes in another variable
  - Also known as an explanatory variable, or in non-experimental research a predictor variable
**DV or dependent variable** is the variable that is thought to be changed by another variable. Also known as the **criterion variable or outcome variable** in non-experimental research.

Sometimes researchers suspect a **causal relationship** between variables (i.e., changes in the IV cause observed changes in the DV). Communication variables may be IV, DV, or both.

There are various models of causal relationships between variables:
- In **recursive** causal models, the causal relationship is **one way**; one variable influences another; one is the cause and the other is the effect.
- In **nonrecursive** causal models, the causal relationship is **reciprocal or two way**; a variable can be both a cause and effect.

Causality is very difficult to establish.
- Need strict control
- Need replication

Researchers may assume a **non-causal relationship** between variables:
- Variables are **associated** or occur together
- One does not necessarily cause changes in the other
- When posing formal RQs for a study, researchers designate one variable as the IV and the other as the DV depending on their primary interest.

Exercise: Identifying Independent and Dependent Variables
Ordered versus Nominal (p. 44)

- Variables can be differentiated according to the values researchers assign to them or the kind of “scale” used to measure them.
- Ordered variables are assigned numerical values to indicate how much of the concept is present (e.g., age, weight, temperature, income).
- Nominal variables (a.k.a., categorical) indicate what something is or whether an attribute is present or absent (e.g., sex, ethnicity, political party).

More on Nominal

- A nominal variable that can be divided into two categories is called a **dichotomous** or **binomial** variable (e.g., sex).
- A nominal variable that can be divided into more than two categories is a **polytomous** variable (e.g., ethnicity, political party).

Exercise: Identify whether the IV and DV in each RQ are nominal or ordinal. If nominal, is it dichotomous or polytomous?

Research Questions vs. Hypotheses

- Research questions are posed when researchers do not have enough evidence on the basis of the literature reviewed to predict the nature of that relationship.
- When researchers feel confident enough to make a prediction they advance a hypothesis.

More on Hypotheses

- A hypothesis is a tentative statement about the relationship between the IV and DV.
- $H_0$ is the general symbol for a research hypothesis.
- $H_1$ is used to refer to a specific research hypothesis.

Posing RQs & Hs

- How the RQ or H for a communication study is phrased usually depends whether the IV is nominal or ordered.
Nominal IVs and RQs

- When the IV is nominal, the RQ asks whether there is a difference between:
  - a (the first category of the nominal IV) and
  - b (the second category of the nominal IV) with respect to
  - c (the dependent variable)

Gender and Self-disclosure

- In studying the effects of gender (the independent variable) on self-disclosure (the dependent variable), the research question asks:
  - Is there a difference between males (a, the first category of the nominal variable) and
  - Females (b, the second category of the nominal variable) with regard to
  - Self-disclosure (c, the dependent variable)

Some Examples

- Will females provide more sensitive comforting messages than males? (Hoffner & Haefner, 1997)
- How do doctors and patients differ in their covert responses during the medical interview? (Cegala, McNeils, McGee & Jonas, 1995)
- Do program enrollees and non-enrollees (in a breast and cervical cancer control program) differ in their preference for persuasive messages delivered through mass media, one-to-several interpersonal channels, or one-to-one interpersonal channels? (A.A. Marshall, Smith & McKeon, 1995)

Nominal IVs and Hs

- A hypothesis for a nominal IV predicts a difference or the nature of the difference between the two or more categories of the IV:
  - a (the first category of the nominal IV) will be greater (or less) on
  - c (the dependent variable) than will
  - b (the second category of the nominal IV)

Some Other Examples

- Women report more than men that verbal interactions contribute to their relational closeness (Floyd & Parks, 1995)
- Older people will evaluate their communication with young family adults more positively than young people in general (Cai, Giles, & Noels, 1998)
One- and Two-tailed Hypotheses

- If the hypothesis predicts a relationship between variables without specifying how they are related, it is called a **two-tailed** or **non-directional** hypothesis
  - "Men and women self-disclose differently"
- If the hypothesis predicts a specific relationship between variables, it is called a **one-tailed** or **directional** hypothesis
  - "Men self-disclose less than women"

Ordered IVs and RQs

- When the independent variable is ordered, the RQ asks whether there is a relationship between:
  - x (the independent variable) and
  - y (the dependent variable)

Age and Self-disclosure

- To determine whether there is a relationship between age (x, the independent variable) and self-disclosure (y, the dependent variable), the RQ asks:
  - Is there a relationship between age (x, the IV) and
  - Self-disclosure (y, the DV)

Some Other Examples

- "How are proportions of argument complexity associated with perceptions of communication satisfaction? (Canary, Brossman, Brossman, & Wegner, 1995)
- "What is the relationship between perpetrator message affect and negotiator affect behavior" (Rogan & Hammer, 1995)

Ordered IVs and Hs

- A hypothesis for an ordered independent variable specifies the nature of the relationship between the independent and dependent variable:
  - x (the independent variable) is (positively or negatively) related to
  - y (the dependent variable)

Age and Self-disclosure

- In studying the effects of age (the independent variable) on self-disclosure (the dependent variable), the hypothesis might state:
  - Age (x, the independent variable) is (positively or negatively) related to
  - Self-disclosure (y, the dependent variable)
Some Other Examples
- Increases in the amount of gaze, smiles, head nods, and forward lean will be positively correlated with increases in amount of liking toward the actor (Palmer, & Simmons, 1995)
- Frequent viewing of nonviolent children's programs leads over time to an increase in children's positive-intense day dreaming (Valkenburg & van der Voort, 1995)

Positive and Negative Relationships
- **Positive relationship** (also called a direct relationship): increases in an independent variable are associated with increases in a dependent variable
- **Negative relationship** (also called an inverse relationship): increases in an independent variable are associated with decreases in a dependent variable

Some Examples
- **Positive**
  - The more students study, the higher their exam scores will be
- **Negative**
  - The more hours students spend “partying” the night before the exam, the lower their exam scores will be

Exercise: Examples from you! Create your very own RQs and Hs! (Just add water and stir...)

Some Subtleties (oh, boy!)
- Some independent variables are obviously nominal or ordered (e.g., gender, age) but others can be treated as either nominal or ordered
- As a general rule, if a variable can be measured either way, it should be treated as ordered and a scale should be used to measure it

More Subtleties!
- Researchers are often interested in the effects of multiple independent variables on a dependent variable (and even multiple dependent variables)
- In such situations, researchers are especially interested in the interaction effects which are due to the unique combination of the independent variables that make a difference on the dependent variables
Interaction effects are also called 
*conditioning, contingency, joint, and moderating effects*, or *multiplicative reactions* in non-experimental research. 

Interaction effects are due to the effects of multiple independent variables working together in contrast to the effects of each independent variable working alone (called *main effects*).

**Some More Examples**

- **RQ**: Do argumentativeness and verbal aggression interact to predict an individual’s reported use of evidentiary appeals to respond to refusal of a request? (Ifert & Bearden, 1998)
- **H**: The combination of interpersonal communication apprehension and receiver apprehension is more strongly associated with sexual communication satisfaction for women than men in sexually intimate, heterosexual relationships (Wheeless & Parsons, 1995)

**Conclusion**

- Research does not occur in a vacuum.
  - Communication researchers must examine what is already known.
  - Determining the “lay of the land” will require finding and evaluating a wide variety of information sources.
  - The research process does not stop at the “end” of a study because the process is cyclical, always beginning anew.