Whispers in the woods: A turning point analysis of theories of relationship development on a month long canoe trip

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WHISPERS IN THE WOODS:
A TURNING POINT ANALYSIS OF THEORIES OF RELATIONSHIP DEVELOPMENT ON A MONTH LONG CANOE TRIP.

by

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Whispers in the woods: A turning point analysis of theories of relationship development on a month long canoe trip.

Director: Dr. Sally Planalp

Eleven young women's relationships were studied in the "pressure cooker" situation of a month long canoe trip. Stage development, social exchange, self-disclosure, uncertainty reduction and dialectical theories were examined to see which could account for relationship changes among the participants. Also, the effects of the environment were taken into consideration. Specifically the researcher looked at the effects of isolation, lack of privacy/close proximity, authority, mutual dependence, and novelty.

The researcher, a co-guide, observed the participants on the trail, turning point graphs were collected using the Retrospective Interview Technique (RIT), and each participant completed a questionnaire. In the 88 graphs analyzed 555 turning point events were identified and grouped into seventeen categories. Questionnaire and observation results were reported in conjunction with the turning point data. The five relationship development theories were then applied to the data to see how they fit or did not fit with the results of this study.

Statistical tests showed that participants did experience relationship change and got closer on the canoe trip; however, there was a lack of agreement about turning points among dyads. Four main results can account for relationship change on the trip. Overall, shared activities and self-disclosure were the two most important aspects that brought participants closer. The role of social exchange was reflected more in behavior and language than self-report. Negative environmental factors and negative attributes of others were the items that drove people apart.

What did not fit into the five theories was the role of "play." Play functioned as self-disclosure, reduced uncertainty, brought people together, and helped maintain relationships. The influence of environmental factors was also not adequately explained by the theories. The environment accelerated relationship development in general and specific experiences triggered changes in communication that are associated with moving across stages.
Acknowledgments

One cannot predict what will happen on our journey through life. In the summer of 1995, at seventeen years old, I headed into the woods for a month. Little did I know that the experience would change my life. Six years later I returned to the same woods in the pristine wilderness of Ontario and Manitoba, Canada. However, instead of being a participant I was now a co-guide and researcher on the month long canoe trip... and so began the journey I call my thesis.

I consider myself incredibly lucky to be able to devote the past year to an experience that has been a major part of my life. I was able to combine my passion for canoeing with my passion for learning. Yet, this never would have been possible without the advice, support, and enthusiasm of many individuals.

First, I would like to give my thanks and appreciation to my committee advisor, Sally Planalp, for guiding me through every step of this process. From the first time I entered your office and told you stories about life in the woods you supported this project and my ideas. I would also like to thank Alan Sillars and Lynne Koester, my committee members, for their help and flexibility.

Second, I would like to thank Fred Rupp, the director of Les Voyageurs Inc., for developing a program that gives young adults a chance to grow in strength and character. I appreciate your permission to take this research study into our workplace and the immediate support you gave me for this project when I approached you with the idea.

I would also like to thank the eleven young women I lived with last summer who put their faith in me by giving me their permission to observe and study their relationships. I have gained an immense amount of knowledge from all of you beyond what is described in the pages of this thesis.

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Finally, I huge thanks goes out to my family, especially my Mom and Dad. I appreciate your unending quest to provide me with a good education. Graduate school and this thesis would never have been possible without your support and love.

"So why... why go through it? Why even be here? The second answer is easy. Because 'here' is where the beauty is. Here is where the sunsets are. Here is where the campsites and campfires are, and the clear, deep waters, and the loons, and the pines, and the islands. And yes, the storms and the big winds and the rapids. Here is where the journey is"  --Paddle Whispers (Wood, 1993).
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Chapter I: Rationale and Background

On a month long canoe trip individuals develop relationships with strangers in a setting where they have to rely on one another for basic survival. For some young women in this research study the individuals they came to rely on over the course of a canoe trip became their close friends. Chances are that not all of us have been in a similar situation. Maybe we have never become close friends with a stranger after only knowing them a short time. Yet we all have probably had experiences with a new acquaintance that resulted in great stress and frustration and other times when everything seemed to work perfectly. Experiences like those encountered on a canoe trip such as someone not pulling their weight, not sharing their resources, or a conflict over decision making might bring you closer to a friend, but if the other person were an acquaintance it might ruin the possibility of friendship.

Rationale for the Study

The relationships among eleven young women during a month-long canoe trip are the focus of this investigation. Ten high school students, one co-guide, and the researcher who was also a co-guide spent a month and a half preparing for their 28-day trip into Ontario and Manitoba, Canada (2 travel days and 26 days on the trail), followed by a week and a half of post-trip activities.

In order to study relationship development among these women multiple theories and methods were used. The researcher observed interactions during the trip, and each young woman retrospectively identified turning points in their relationships with the ten other young women and plotted them on a graph. When the trip was over, the participants also completed questionnaires about the relationships they formed on the canoe trip.
Theoretical Goals

This study seeks to apply theories of relationship development to relationships that could be observed moving from initial acquaintances to friends or even enemies. Theories about social exchange, self-disclosure, uncertainty, stage development, and dialectics were applied in this unique "pressure cooker" setting to see which could account for the relationship changes. Each theory spotlights different aspects of the developing relationships and has a niche that it explains best. By shining five spotlights onto the developing relationships the researcher was better able to understand the complex process that took place. If she had examined these young women's relationships only under the spotlight of social exchange theory we would only be able to see the exchange of rewards and costs, and the balance of novelty versus predictability or openness versus closedness would remain in the dark. Similarly, if the researcher only looked at these relationships under the spotlight of uncertainty reduction we may discover how the young women got to know each other but would still be in the dark about later stages of their relationships. By using five spotlights at one time the researcher was able to shine enough light onto how these young women's relationships developed to examine the whole complex process.

The researcher used her written accounts of the event, the two participants' graphs of turning points in their relationship, and their questionnaires to help identify which theories were at work. Were the participants engaging in the exchange of rewards and costs (social exchange theory)? Were the two young women trying to balance openness and closedness (dialectical theory)? Or have the two young women just hit the intensifying stage of their relationship (stage development theory)? In order to keep from being limited to the framework of one relationship development theory, the five theories mentioned above were applied to see what they illuminated and to better understand what lies outside of their ranges.

Research and theory on relationship development are usually applied to romantic relationships. For example, in Knapp and Vangelisti's stage development theory some of
the factors that identify a dyad as being at a certain stage are not appropriate for friendships. At the intensifying stage, a dyad seeks confirmation before increasing intimacy. An example given is that, "Sitting close, for instance, may precede hugging; holding hands will generally precede holding genitals" (1992: 62). This example obviously does not apply to a friendship dyad. Likewise, turning point studies have been done almost exclusively with romantic relationships one exception being a study of department chair and professor relationships (Barge & Musambira, 1992). The researcher could not locate a turning point study done with friends.

This study also allows us to explore theories of relationship development that have often been tested in the laboratory or under highly controlled situations. For example, Berger and Calabrese's (1975), Sunnafrank's (1986), and Berger and Bradac's (1982) uncertainty theories were developed using the support of research done primarily in laboratories. Laboratory designs such as experiments, interviews, and questionnaires that ask participants to report on some aspect of their relationships is quite common. Baxter (1990) studied dialectical contradictions in relationship development using interviews. Surra et al. (1988) studied the association between reasons for commitment and the development and outcome of marital relationships using interviews where participants were asked to produce graphs of their chances of marriage during courtship and follow-up questionnaires. What is less common is observational research or case studies examining these same theories as they operate in situ.

The environment where a study takes place affects its results. Undergraduate college students who receive extra credit for participation in an interview are aware that participation may result in their professor looking upon them more favorably. Moreover, participants may be asked to comment on a video clip or to fill out a questionnaire when they are distracted, don't feel well, or cannot accurately express or articulate their opinions. In a laboratory situation research participants must "perform" during the time slot scheduled.
Past research has often been done without taking into consideration the full effects of the environment in which the study was done, or environmental factors have been ignored completely. Therefore, this study took into account the rich environment in which data were collected. On a canoe trip factors such as isolation, lack of privacy/close proximity, mutual dependence, authority, and novelty may affect relationship development. Furthermore, one of the environmental factors that affects relational development and has received very little study is the set of relationships that each partner has with others and general social network effects. For example, participant X's relationship with participant Y can be influenced by a co-guides' support, another co-guide's interference, and her relationships and connections to other members of their crew. Multiple relationships affect each other. Thus, each young woman's relationships with the ten other women were examined, and data from both individuals in each pair were collected.

The environment surrounding this study may be unusual, but the results may shed light into relationships developed under similar settings such as retreats, military service, sequestered juries, and reality shows. The participants in these situations may face many of the same environmental factors such as isolation, mutual dependence, and lack of privacy.

Methodological Goals

Research in situ is rare because of factors such as privacy constraints and lack of availability, but such research can lead to more realistic results. The participants are not asked to imagine a situation or given hypothetical relationships to examine. By observing research participants in situ, the results obtained are more real. It is not ordinarily possible to follow two friends around for a month. However, that is exactly what this research setting allowed. Not only were both sides of a dyad available for close observation for a long period of time, but with eleven women on a month long canoe trip, it was possible to observe and study a total of fifty-five dyadic relationships.
Another methodological goal was to ask the young women to describe the time course and turning points of their relationships immediately after the trip was completed. The participants were asked to plot their turning points on a graph indicating when the event happened on the canoe trip and how close they felt to the other individual at that time. Once again, in many previous studies the lag for retrospective information was several years or an indefinite period of time. By having the participants provide information immediately after they returned from the canoe trip, the experience was fresh in their minds, and participants should have been able to recall more detail.

Finally, this study added rich data to the existing research about relationship development because of the use of triangulation. Not only were participants observed and filled out graphs identifying turning points in their relationships, but they were also given a questionnaire to complete. By using three research methods a more accurate and complete picture was painted of relationship development in this environmental context. By using turning point graphs (including explanations of events) and questionnaires the participants were able to provide information on events that the researcher may not have observed. Furthermore, these comments helped the researcher understand the participants' perspectives on the impact of events. Yet, the researcher may also have observed events that the participants did not notice. For example, she may have observed an event between X and Y which then affected the way X treated Z.

Background

In order to understand the environment in which this research study was conducted, it is useful to have some general background information on Les Voyageurs Inc., the organization that sponsored the canoe trip.

General Background

For thirty-one years Les. Voyageurs Inc. (LVI) has been leading young adults into the Canadian wilderness on grueling month-long adventures. During this time over 1,500 people have gone on canoe trips through LVI, a private, non-profit organization based out
of St. Cloud, Minnesota. LVI was founded and is run by a local high school biology teacher.

After weeks spent planning, preparing, practicing new skills, and packing the crews departed and started their drive through Minnesota up into Canada at Pembina, North Dakota. Here the crews continued their drive to an aviation center south of Pine Dock, Manitoba, where they were flown further into Canada. Since each crew planned their own route they started at different places and traveled through different lakes, rivers, streams and over land. One of the most common entries on the daily itinerary that was left with the participants' parents was "unnamed lake" followed by latitude and longitude coordinates.

On the trail, the experiences of each crew were as diverse and unique as its members. Events like night paddles, cliff jumping, shooting rapids, seeing historic rock paintings, run-ins with bears and moose, and spectacular sunsets were all memorable experiences, but so were accidents, rain, wind, and storms.

Despite the different situations that crew members encounter LVI allows its participants to make their own decisions in an atmosphere where failure teaches lifelong lessons as much or more than success. The handbook for LVI's guides further explains the organization's philosophy in this way, "Participants come to realize that they possess the power to accomplish a great deal as individuals, but they also learn that a cooperating group can accomplish a great deal more" (Rupp, 2001).

LVI insists that its participants follow low impact wilderness guidelines, and LVI's guides stress "not leaving a trace" when a crew leaves a campsite. Overall, LVI wants all of its participants to better appreciate, respect, and understand their environment and nature. And just as importantly, LVI wants its participants to better appreciate, respect, and understand themselves. As LVI's director states, "By the time the trip is done, [the participants] realize the limits in their lives were pretty much set by them artificially, and maybe they don't really have those same limits anymore" (Gottwalt, 2001: 10).
Strangers in Canoes

A benefit of this wilderness setting was that it provided a "pressure cooker" for relationship development. It provided a chance that researchers rarely get-- a chance to see a relationship develop from day one to close friends. Like strangers on a train, participants in this study faced environmental factors that accelerated their movement through relationship development stages. Unique environmental factors provided a rich context in which to explore theories of relational development.

Isolation.

The eleven young women in this study and the researcher were isolated from outside contact for one month. These young women were bused to an aviation center in Pine Dock, Manitoba and then flown further into Canada. After unloading their gear from the bush planes, contact with the outside world was minimal. For the next twenty-six days these twelve women did not have any electrical or battery operated devices including walkmans, diskmans, radios, phones, televisions, pagers etc. The only device they possessed that could link them to the outside world was a hand-held radio with the aviation center's frequency channels programmed in for emergency purposes. Besides a lack of technological resources to connect them with the outside world, contact with people other than the twelve women was minimal. The only planned encounter was when the two guides, halfway through the trip, stopped by a fishing lodge to pick up more food.

Lack of privacy/ Close proximity.

We know from previous research that people who live in close proximity to each other are likely to become friends (Berscheid-Walster, 1969), but what if they are unable to avoid close proximity? For the twenty-six days on the trail there was no escaping the group. The participants may not have heard any news from the outside world, but they surely heard almost everything from the other eleven participants. Because of the structure of the trip the participants relied heavily on others to function on a daily basis.
Canoeing, portaging, and tasks like building fires and cooking required a communal effort. Because resources had to be shared there was no place to "escape" to when eating, bathing, or sleeping. The only time participants could be alone was during a trip into the woods to relieve themselves.

**Mutual dependence.**

Another environmental factor affecting the group's isolation and lack of privacy was the degree of mutual dependence among the participants. Since there were no modern appliances available, simple tasks like fixing a broken pack, making supper, or washing clothes required teamwork. When the crew had to portage through a thick section of woods or down a steep incline it required even more teamwork. The person carrying the food pack could not step down off a rock without a hand from another crew member balancing her pack. Similarly, the person carrying the canoe could not navigate through the thick bush without someone leading and clearing the way. And because of the limited amount of resources with the participants during their trip, everything had to be shared from big items like packs and tents to small items like water bottles, soap, medical supplies, sun block, and insect repellent.

**Authority.**

Every woman in this study took part in a rotating job system in which each participant took different leadership roles. Each day one participant excluding the guides became G.O.D., or Guide Of the Day. The participant who was the G.O.D. had the most responsibility except for the co-guides. She was responsible not only for motivating the group, but for making decisions about how far the group traveled, if rapids were shot or portaged around, when to stop to take breaks, when to eat, and when and where to camp. The G.O.D. was also responsible for making canoe arrangements (assigning three people to each of four canoes), which were also the sleeping arrangements for the night. Furthermore, the G.O.D. was responsible for leading "meal talk" during supper which was a recount of the days activities. This talk highlighted the positive behaviors or events that
the group or members of the group accomplished and negative behaviors or events that hindered the group or upset group members during that day.

**Novelty.**

Another salient environmental factor was the amount of novelty faced by participants on their trip. The women who went on this canoe trip met with many new experiences from encountering wildlife to facing heat, cold, and storms in a new way. Many participants also encountered tasks they had never done before such as camping in the woods, flagging a trail and portaging, eating strange foods, preparing meals outdoors, scouting, and shooting rapids.

**Summary**

This study focused on using theories of relationship development, including social exchange, self-disclosure, uncertainty, dialectics, and stage development to shed light on changes in eleven young women's dyadic relationships with each other. Not only did this study collect information immediately after the canoe trip and examine both individuals in a dyad, but it took into consideration the effects of environmental factors such as isolation and mutual dependence. This research explored theories of relational development for friendships that have often been studied in romantic relationships or in laboratory settings.
Chapter II: Literature Review

Relationship development theory has been discussed in terms of stages of development and studies have isolated and examined factors that affect relationship development such as partner's intent, sex, and type of relationship (Shea & Pearson, 1986). Research has also been done to examine different ways that relationships may change. Such research has focused on the exchange of costs and rewards, and rules and behavior concerning self-disclosure. This review of literature will examine the basic premises behind theories about stage development, self-disclosure, social exchange, dialectics, and uncertainty reduction. It will also look at the development and use of turning point analysis. Each of these five theories and method will be discussed in a following section. After an overview of the basic premise of each theory or method the section will include a discussion that looks at how the theory or method has been studied in friendships. Furthermore, since all of the theories were used to analyze relational development, a discussion will follow the basic premise that highlights how the theory was applied to the canoe trip situation. A discussion of the limitations of each theory will also be included.

In a review of literature regarding relationship development theories two main problem areas are noticeable. First, even though some studies do focus on the development of non-romantic relationships, much research focuses on romantic partners. This makes it difficult to gather information on stage development, self-disclosure, social exchange, dialectical and uncertainty reduction theories that were developed in research studies of friends. A quick review of two popular journals, Personal Relationships and the Journal of Social and Personal Relationships, easily illustrates the magnitude of this problem. In looking at the last three years of Personal Relationships, the researcher randomly pulled ten journals off the shelf. In these ten issues there were over thirty-five articles that studied romantic relationships or marital interaction. In these same ten issues there were only six articles regarding friendships, and two of these articles looked at
cross-sex friendships in comparison to romantic relationships. Similarly, in ten issues of the *Journal of Social and Personal Relationships* from the last three years there were over twenty-five articles on romantic or marital relationships and only seven articles that looked at friendships. However, once again four of the articles on friendship looked at cross-sex friendships in comparison to romantic relationships with titles such as: "On being 'just friends': The frequency and impact of sexual activity in cross-sex friendships" (Afifi & Faulner, 2000), and "Cross-sex friends who were once romantic partners: Are they platonic friends now?" (Schneider & Kenny, 2000). There is less research literature about friends to guide work about romantic couples.

A second limitation is that a great deal of relationship development research is done in laboratory settings. It is also common to give the research participants hypothetical situations in which they need to "imagine" the results. Studies such as "Looking deeper: Extradyadic behaviors, jealousy, and perceived unfaithfulness in hypothetical dating relationships" base their results on participants' imagined responses to hypothetical relationships (Yarab et al., 1999). These results would not hold much weight if compared to a similar study that observed or questioned participants in real relationships.

The current study seeks to build on past research to gain a better understanding of relationship development in non-romantic same-sex pairs in a specific environmental context. As Wheeless et al. state, "One of the basic assumptions of relationship development is progression," and this study examines the progression of friendship relationships under specific environmental factors (1984: 221).

Theories of relationship development were compared and contrasted in order to identify which theories play a role in the changes present in the relationships of the research participants. Having (1) provided a rationale for this study, (2) having explained the company through which the participants went on their trip, and (3) having provided descriptions of environmental factors likely to affect the research participants' relationship
development it is now important to review previous research regarding theories of relationship development.

**Stage Theories of Relationship Development**

The study of relationship development focuses on changes, the forces behind those changes, and movement to a goal or end. Stage theories of relationship development break changes into "steps" or "stages" that follow a predictable order. The following section highlights research regarding the development and dissolution of personal relationships including an overview of three stage models of relationship development.

**Knapp and Vangelisti**

Knapp and Vangelisti (1992) provide a model of interaction stages for relationships. Through the process of individuals "coming together" Knapp and Vangelisti identify five stages which are: initiating, experimenting, intensifying, integrating, and bonding. In the initiating stage individuals are taking into consideration their previous experience with the other person or background knowledge, they are assessing whether the other person is attractive, and they are gathering knowledge to reduce uncertainty. In the experimenting stage individuals are gathering information about the other and are looking for similarities. This stage may be characterized by a lot of small talk. In the third stage, intensifying, individuals engage in more self-disclosure and private symbols, nicknames and verbal shortcuts may happen based on shared knowledge and assumptions. Next, in the integrating stage, individuals adapt more aspects of the other's interests and personality, a dyad may seem to "fuse" (1992: 63). In the bonding stage commitments in the relationship are formed which may be expressed in a public ritual.

In the process of individuals "coming apart" Knapp and Vangelisti identify five more stages which are: differentiating, circumscribing, stagnating, avoiding and terminating. In the differentiating stage individuals focus on their differences. Language use may change to emphasize these differences and conflict/fighting may happen. Next, in the circumscribing stage, less breadth and depth of communication is shared.
Communication is being constricted. In the stagnating stage, communication virtually ceases. Individuals imagine and assume what the other person will say. *Avoiding*, the next stage, is characterized by communication that helps the participants avoid being in close proximity to the other person. Communication emphasizes the fact that individuals do not even want to talk to one another. And finally, in the *terminating* stage individuals' messages stress distance and disassociation.

Even though relationship development and deterioration is conceptualized through stages, Knapp and Vangelisti (1992) note that this is not to suggest the process is linear. They recognize the process as complex and dynamic and note that movement may occur in a forward direction, backward, or within a stage. Furthermore, they acknowledge that movement may be more rapid for intimates or close friends. Although the theory can be applied to friends, it works better with the study of romantic relationships because, as noted previously, some of their stage descriptions only apply to romantic relationships.

*Wood*

Wood's (1982) model, which closely resembles Knapp and Vangelisti's, looks at relationship development and deterioration through the central concept of "relational culture" which she uses in identifying twelve states of relationship development based on the function of communication in each state. Like Knapp and Vangelisti's model, these states may apply to same-sex pairs.

Wood (1982) defines the term relational culture as, "...a privately transacted system of discourse and definition that coordinates attitudes, actions, and identities of partners in a relationship" (p. 75). Through communication relational culture influences individuals identities and constructs their realities.

Based on this description of relational culture Wood (1982) identifies twelve "states" of development and deterioration of interpersonal relationships. These states follow: (1) State One: *Individuals*: Individuals "pre-relational" activities influence their attitudes and goals for intimacy. (2) State Two: *Invitational Communication*
(Auditioning): Communication is informational and superficial. Perceived similarity and attractiveness is important. (3) State Three: Explorational Communication: If there are enough surface similarities and attraction, communication will then surround interests and personalities. (4) State Four: Intensifying Communication (Euphoria): Communication defines and forms pair-identity. Individuals engage in self-disclosure and the pair may engage in role-taking. (5) State Five: Revising Communication: A function of this state is clarifying communication between the pair. Individuals are somewhere between recognition as a pair and long term commitment to the pair. (6) State Six: Bonding Communication: At this state there is a voluntary commitment to a future for the pair which can elevate the status of the relationship. (7) State Seven: Navigating Communication: This state is an extended process of confirmation and redefinition. During this state there can be an emphasis on rituals. (8) State Eight: Differentiating Communication: Pairs in this state challenge existing patterns which may result from one partner's lack of effort. (9) State Nine: Disintegrating Communication: Denial or denigration of relational culture may happen during this state. There may also be a decrease in intimacy from a decrease in communication. (10) State Ten: Stagnating Communication: Here communication takes on informality and superficiality to deal with logistical issues. (11) State Eleven: Terminating Communication: Communication in this state functions to settle logistical matters and to provide closure. (12) State Twelve: Individuals: From their experience in a relationship individuals may have changed.

Levinger

Levinger (1980) examined long-term relationships and developed a five-phase sequence referred to as the ABCDE model. The first phase in the sequence, A, refers to the initial attraction in a relationship. Assessment of possible rewards may be a factor in initial attraction and proximity also plays a role. The second phase of the sequence, B, refers to building a relationship. In this phase Levinger studied research trying to predict the outcome of a dyad's relationship and examined studies that tracked changes in
relationships. After forming and maintaining a relationship, a commitment to the relationship is established before "C," *continuation* of the relationship. In studying "ongoing maintenance" or continuation Levinger examined three domains: "(1) the Person-Other intersection, or the functioning of the interpersonal system itself; (2) either partner's individual characteristics, present before his or her entrance into the pair system, and later affected by events that each member experiences; and (3) the pair's external environment, both social and nonsocial" (1980: 533). In the continuation stage Levinger speculates about a warning sign in relationships. The warning sign is a tendency for the partners in a relationship to be concerned with the fairness of their exchange of rewards. This leads us to the fourth phase of the sequence, D, or *deterioration*. There are many possible reasons for the worsening of a relationship and Levinger points out that many couples may stay in a deteriorated relationship indefinitely. However, some couples do move on to the fifth and last stage of the sequence, E, or *ending*.

**Relationship Development Research**

A number of researchers have focused studies specifically on the development or the deterioration/disengagement of relationships. Too much has been done to give a thorough review of the research so this section will highlight some of the recent work on relationship development followed by a section on relationship disengagement.

Initial interactions, attraction, and relationship maintenance has been studied in a variety of ways including first impressions of talking rates (Kleinke et al., 1979), taboo topics in relationships (Baxter & Wilmot, 1985), compliance gaining (Witteman & Fitzpatrick 1986), friends and acquaintances' conversations (Planalp & Benson, 1992), deceptive communication (Miller et al., 1986) and confirmation and disconfirmation (Cisna & Sieburg, 1981). Much of this research is based on the study of romantic relationships. Some studies that have researched initial interactions and maintenance among friends or same-sex dyads are discussed below:
In Vittengl and Holt's (2000) study, same-sex dyads who had never met before were paired together. After these pairs met and talked the researchers found greater positive affect. Furthermore, greater self-disclosure and social attraction predicted the increase of positive affect among these same-sex dyads.

Recently, research on relationship maintenance has also focused on joint leisure time. In Flora and Segrin's (1998) study, they videotaped romantic and friend dyads who were engaged in a leisure activity. As Flora and Segrin conclude, "High quality interaction contributes to high leisure satisfaction, and the strong relationship between leisure satisfaction and relational satisfaction attests to the impact that joint leisure has on relationships" (1998: 717). Leisure activities among friends affected their relationship.

**Relationship Disengagement Research**

Researchers have addressed the suggestion that disengagement stages mirror in reverse the stages of relational growth and supply evidence to the contrary (Baxter, 1983; Lee, 1984). Baxter (1983) points out that during disengagement the individuals do not forget their knowledge of the other person which affects their relationship's dissolution. Background knowledge of the other individual is one example of a factor which shows how disengagement stages cannot be a mirror reverse of relational growth.

In other studies researchers have focused on the endings of romantic relationships. In one study about the deterioration of romantic relationships Lee (1984) used research subjects to generate a framework of stages of their break up. Through this process she identified five stages: (1) the Discovery of Dissatisfaction Stage, (2) the Exposure Stage, (3) the Negotiation Stage, (4) the Resolution Stage and (5) the Transformation Stage. In addition to these five stages three other variables play a role in Lee's analytical framework: the operator, the content, and latency or length of time.
Stages of Development and Deterioration of Friendships

Hays (1989) identified differences in friendships as close versus casual. Close friendships differed from casual friendships in that people interacted more often and across a greater variety of settings and reported more benefits from these encounters. Whereas in casual friendships individuals were more aware of the costs of their relationships. A basic aspect of both types of friendships was enjoying each other's company/fun.

Davis and Todd (1985) discuss how we can distinguish the friendship relationship from other types of relationships. As they explain, in an archetypal case of friendship the relationship is mutual and reciprocal. In this friendship relationship the participants also have equal eligibility to do things, enjoy being with each other, trust each other, provide assistance and support for one another, accept each other, do not feel confined to a role or feel free to be spontaneous, understand the reasoning behind each other's behavior, and create intimacy with each other through the sharing of experiences.

These qualities of friendship affect how a friendship relationship will progress through stages in comparison to romantic relationships. Friends may feel more freedom to engage in a variety of roles and they also may feel more free to try new identities with each other as oppose to individuals in a romantic relationship. With less role expectation and more flexibility the stages of friendship may be less distinguishable than the stages of romantic relationships.

Studying the termination of friendships Rose's (1984) research participants explained why close same-sex friendships had ended which resulted in four basic reasons: physical separation, new friends replacing old friends, the research participant disliked something the friend did or said, and the friendship interfered with a dating or marriage relationship. Women's friendships were more likely to dissolve from a heterosexual relationship than men's and men's were more likely to dissolve because of physical separation than women's' friendships. Furthermore, Clark and Delia's (1997) research
about distressing situations found that individuals preferred to have control over the
decision to discuss a problem with a friend.

**Application and Limitations of Stage Development Theories**

In this research study the researcher expected all of the relationships to progress
because the participants had no choice but to interact based on their isolation, close
proximity, and mutual dependence. However, she also believed that many of the
relationships would deteriorate due to the involuntary nature of the relationships on the
trip. In order to assess the process of relational development (stage theories) the
researcher looked for items/information in the data collected such as the following:

In the beginning of the trip did the participants start their relationships by swapping
informational and superficial information (Knapp and Vangelisti/Wood)? Were they
initially attracted to other individuals because of the potential for rewards (Levinger)? Did
a relational culture or way of acting/behaving develop between two individuals or among
the group (Wood)? Did communication patterns form around this relational culture that
started with the assessment of perceived similarity or the discussion of superficial
information (Wood)? Along these same lines the other stages/states of development
would be examined among the participants' relationships based on the three models
described above.

Likewise, the researcher also examined how qualities of friendship, such as those
developed by Davis and Todd, affected stages of development among friends. Did friends
frequently try different styles or play different roles while interacting? Were some
friendships more close because those individuals seemed to interact over a wider variety of
experiences/settings on the trip (Hays)? Finally, did any friendships terminate while on the
trip and were the reasons any of those identified by Rose?

Using stage development theories it may be hard for the researcher to identify the
behavior and communication of the participants as fitting into a specific stage. In this
way, a limitation of stage development theory is that it does not account for all of the
behavior of the participants or their behavior simply does not seem to fit within a stage. A drawback of stage development theory is that it emphasizes a linear process when relationships are not always goal orientated.

As we have seen in the models of relational development, social exchange research is commonly used as a framework in which to study relationship development. As Levinger explains in his discussion of the ABCDE model and his own previous research, "My premise was that both early, during a formative stage, and late, during a declining stage, partners are very concerned with the rewards and costs obtainable in their relationship; the positivity of one's exchange balance is likely to be salient in one's thoughts" (1980: 536). Similarly, other researchers such as Park and Waters point out that an individual is willing to maintain a relationship if the costs do not outweigh the rewards (1988). A relationship may end when an individual's behaviors change during a relationship which results in the other's needs not being met any longer (Park & Waters 1988). How relationships change is the next subject to be examined. Therefore, the next section will examine social exchange theories.

**Social Exchange Theories**

Roloff (1981) summarizes social exchange as, "...the voluntary transference of some object or activity from one person to another in return for other objects or activities" (p. 21). The basic premise of social exchange is that individuals move throughout phases of relationship development by constantly weighing costs and rewards, "...between the partners and between members of the partnership and others" (Burgess & Huston, 1979: 4). Roloff (1981) notes that social exchange is generally entered into voluntarily.

Furthermore, in talking about exchanges between two people Roloff (1981) explains two main categories: economic and social. For the purpose of this research, exchange relationship will be used in place of the term economic exchange and communal relationship will be used in place of the term social exchange. Based upon previous
research Roloff explains seven differences in which we can analyze these two categories:

(1981: 15-16)

**Exchange relationships (economic exchange):**
involves specific obligations between two people
involves specified time frames in which an obligation is to be repaid
objects of economic exchange are open to bargaining
based upon beliefs in the legal system
tend to be impersonal
the rate of exchange in economics is well defined
the value of economic benefits is easily detached from the individual who provides them

**Communal relationships (social exchange):**
unspecified obligations
leaves the time period unspecified
objects of social exchange are not open to bargaining
based upon trust and good will
feelings of personal obligation, gratitude, and trust
social exchange objects are difficult to describe in terms of relative value
whereas social benefits often gain or lose value depending upon who gives them

**Costs and Rewards.**

Vacations, cars, food and money are all rewards. However, communication is also a reward. Foa and Foa (1974) point out that through communication rewards such as love, status and information can be given to another individual. These researchers developed a taxonomy of resources or six classes: love, status, information, money, goods, and services. Foa and Foa (1974) also distinguish between particularistic resources and universalistic resources. Some of the value of particularistic resources comes from the person who provides this resource such as the case with love or status. Therefore, particularistic resources are only shared with a limited number of others. On the other hand, universalistic resources such as goods and information are exchanged on a much wider basis because the identity of the giver does not matter.

In looking at social exchange principles in developing relationships Burgess and Huston (1979) discuss research done on the effect of rewards and costs influencing attraction over time. A person may not be attracted to another because they had an
immediate reward, but instead because, "... the profits have been steadily increasing" (p. 17). This finding may apply to participants on the canoe trip. Friendships may develop as the profits steadily increase.

On a canoe trip rewards could be basic items such as extra food, candy, or dry clothing. However, rewards on a canoe trip could become much more complex such as one person assigning individuals to the tent staked on the flattest ground or being assigned to the same canoe as the strongest paddler. Furthermore, rewards could be more abstract such as praise of another individual or confidence in another individual's skills. A reward could be that your friend will always help you carry your gear or it could be that they are a strong swimmer and pulled you out of fast moving water.

Costs on a canoe trip could be as simple as be assigned by G.O.D. to the tent on rocky ground or being teased by another individual. Or costs could be more complicated as in an individual always helping others before they help you with your daily job or an individual never giving you their extra food. It could also be quite a high cost to be assigned to a canoe with individuals that are lacking strong canoeing skills.

**Equity and Fairness**

Equity is achieved in a relationship when a person recognizes outcomes as equal to their contributions or inputs. As a note of distinction, in comparison a relationship is considered equal if the individuals inputs are equal. Walster et al. (1978) explain that an individual can achieve equity by finding someone with similar resources to exchange. Or by finding someone with dissimilar resources individuals can compensate where each other is lacking and still achieve equity. For example, one individual could give money and the other individual could provide a service and their relationship could be considered equitable if they both have previously agreed on the amount of money and services. As Morton and Douglas state, "Rules of fairness of resource distribution represent one structural element of relationships about which partners must agree" (1981: 23).
Based on equity theory by Walster et al. (1973) Graziano and Musser explain, "From the perspective of equity theory, complex social behaviors have their origins in the needs of individuals. Individuals are motivated to meet their needs and maximize their outcomes at the lowest cost" (1982: 98). Furthermore, when individuals anticipate a continuing relationship with others they are more likely to be generous and cooperative according to Graziano and Musser (1982) because this will maximize their outcomes.

Researchers Cunningham and Antill state, "It is indisputable that most voluntary relationships are based on considerations of equity and exchange" (1981:31). What happens in a canoe trip situation where relationships are not voluntary? The researcher speculates that even though the relationships on the month long canoe trip were not voluntary, equity and the exchange of rewards will be the basis for the relationships formed. Since the participants were "stuck" with each other for one month with no way of leaving the group the researcher predicts that the exchange of rewards and costs will play a powerful role in who develops close friendships with whom. Individuals will become close friends with others with whom they have established an equitable exchange.

Interdependence

Interdependence, the degree of autonomy versus connectedness in a relationship, is closely related to social exchange theory (Cappella, 1988). Interdependence theory assumes that a higher degree of closeness will result in a higher degree of satisfaction or outcomes. Four properties represent a high degree of interdependence. These properties are: "frequent interactions over a long duration of time that encompasses a diverse range of activities in which the parties exert strong influence on one another" (Baxter & Montgomery, 1996: 80). Yet, this conceptualization brings along some problems. As Baxter and Montgomery explain referring to previous research by Kelly et al. (1983), two enemies would be regarded as close, "...so long as they display the properties of interdependence... despite the fact that they probably would direct negatively oriented

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behaviors toward one another and would experience negative subjective feelings of dislike and dissatisfaction" (81).

Cappella (1988) gives suggestions for studying the relationship between interdependence and relational outcomes. As he states, "Rather, in continuing our study of the linkage between degree of interdependence and relational outcomes, researchers must expect that the behaviors involved, the type of relationship being studied, and, perhaps most importantly, the meaning of the behaviors being studied will determine the way that predictability is related to outcomes" (1988: 339).

The explanation of the four properties that represent a high degree of interdependence fits extremely well within this canoe trip situation. The participants on the canoe trip had frequent interactions over one month of time that encompassed a very diverse range of activities in which the researcher expected them to exert strong influence on each other. As mentioned, the participants needed to rely on each other to accomplish basic survival tasks and in that way their high level of mutual dependence may lead to a high level of interdependence.

*Exchange Relationships*

In exchange relationships a reciprocation of benefits is expected between the individuals involved. Business relationships and acquaintances are often thought of as being exchange relationships (Clark & Taraban, 1991). In exchange relationships, the reciprocation of benefits leads to greater attraction and liking (Clark & Mills, 1979; Clark, 1981; Clark & Waddell, 1985).

In 1959 Thibault and Kelley did work on potential benefits and loses in a relationship which they revisited in 1978. Their discussion focused on the terms comparison level (CL) and comparison level of alternatives (CLalt) and patterns of exchange between individuals. They describe comparison level as, "...the standard against which the participant evaluates the "attractiveness" of the relationship or how satisfactory it is" (1978: 8-9). A person's relational history comes into play when considering their
CL, this includes their knowledge of other possible outcomes. If an outcome is higher than a person's CL the outcome is considered satisfactory. On the other hand, if an outcome is lower than the CL, the outcome is considered unsatisfactory. CLalt is a person's bottom line, it is the lowest acceptable outcome they will accept and still stay in their relationship. Stated differently, it is the least acceptable outcome a person will accept before leaving the relationship. An individual's relationship satisfaction and their willingness to stay with an exchange relationship depends on two types of comparisons: restricted exchange and generalized exchange.

Restricted exchange is the direct giving and receiving of benefits between two groups, but there is no involvement, giving or receiving, with any outside parties (Roloff, 1981). As Roloff explains, "such situations might occur when two people are isolated from others (exclusive restricted exchange) with no potential alternatives" (1981: 19). Some individuals in restricted exchange relationships may become very dependent on each other and other individuals could easily exchange with other partners in the future. In a restricted exchange relationship individuals feel others are obligated to reciprocate any benefits (O'Connell, 1984). There is an effort in restricted exchange to maintain equality (Roloff, 1981).

Generalized exchange occurs in groups where three or more individuals participate. Here, unlike the norm of reciprocity, "the norm of generalized reciprocity holds that one has a duty to reward others but not necessarily the specific other who rendered a benefit" (O'Connell, 1984: 336; Roloff, 1981). When a generalized exchange system operates, individuals trust each other. As Roloff explains, "A credit mentality exists in which individuals have faith that they will take care of others and will be taken care of in turn, although not necessarily by the same people" (1981: 20). If one individual benefits another within the system, the receiver of the benefit owes the system (Roloff, 1981).
The study of exchange relationships is not limited to restricted or generalized exchange between individuals. Besides exchange relationships between two people, a second type of exchange relationship is among a network of people.

**Communal Relationships**

In communal relationships people are receptive to each other's needs and concerned for each other's well-being. Family relationships and friendships are often thought of as being communal relationships (Clark & Taraban, 1991). People try to establish trust within communal relationships where they can form a long term commitment to each other. O'Connell explains that trust and commitment are important because "exchange is often imbalanced" (1984: 334).

In communal relationships members may feel a desire to please the other which can influence reciprocation even though receipt of a benefit does not cause an obligation to reciprocate the same type of benefit (Clark & Waddell, 1985). However, in communal relationships, an obligation to reciprocate does apply when the other has a need (Clark & Mills, 1979).

This "need based" giving has been explored in more detail. For example, Clark and Waddell (1985) used all female research subjects in order to confirm results reported by Clark and Mills (1979) where repayment led to less liking than no repayment in communal conditions. Some critics have stated that Clark and Mills' (1979) results may have resulted from the disappointment of male subjects with their repayment, specifically that they may have preferred sexual favors. Using all female subjects Clark and Waddell did find that repayment was not necessary to avoid decreases in attraction in communal relationships (1985). This result can help rule out the possibility that subjects wanted a different type of repayment than what they received.

Clark and Waddell explain that norms govern exchange and communal relationships and, "When people initiate a communal relationship they usually expect the other to follow communal norms as well and they benefit as a result" (1985: 414).
O'Connell (1984), Clark and Waddell's research leads them to conclude that "...in communal relationships people follow a need-based norm for giving..." (1985: 417).

Not only does the reciprocation of benefits not have to happen soon after an individual received a benefit, but the reciprocation of benefits does not have to be of the same type of benefit. For example, in a study by Clark (1981) the noncomparability of benefits led research participants to perceive friendship (a communal relationship) between two people in a hypothetical situation.

A Comparison of Exchange and Communal Relationships

In looking at the differences between communal and exchange relationships it is important to note that the specific benefit does not distinguish the relationship; instead it is the rules surrounding the giving and receiving of that benefit that distinguishes the relationship type (Clark & Mills, 1979).

Summarizing previous research, Williamson and Clark (1989) state that people desiring a communal relationship monitored others' requests for help more, checked indicators of others' needs more, and were more likely to help or increase help to another if sad than people desiring an exchange relationship. On the other hand, people in exchange relationships expected a fair repayment of benefits and were concerned with keeping track of contributions (Williamson & Clark, 1989; Clark, Powell, & Mills, 1986; Clark & Waddell, 1985).

Furthermore, Clark and Taraban concluded from their research that research subjects were more willing to discuss emotional topics under communal conditions than under exchange conditions (1991). Research subjects also reacted more positively to emotions under the communal conditions (Clark & Taraban, 1991). Similarly, in their research, Williamson and Clark (1989) found that helping in comparison to not being able to help increased mood and self-evaluations when research participants desired communal relationships but not exchange relationships.
It is possible that a person can have both an exchange relationship and a communal relationship with an individual given different circumstances (Clark & Mills, 1979; Roloff, 1981). Therefore, it is important to remember that these categories are not mutually exclusive.

Social Exchange Theory and Friendship

O'Connell (1984) states that the friendship relationship contains elements of restricted and generalized exchange. The friendship relationship is generalized because balance to the giver is expected though not in a specific way or at a specific time. And the friendship relationship is also restricted because it is voluntary by nature and defined by its participants. However, unlike restricted exchange, the friendship itself matters and not just the gift or benefit. O'Connell (1984) also reports on two ways the friendship relationship can cope with an imbalance: 1) the norm of noninstrumental concern and 2) the need norm. The norm of noninstrumental concern states that the friendship itself takes away from the need to balance instrumental concerns. The need norm allows an individual to fail to reciprocate because of a legitimate need.

Rawlins (1992) states that, "a spirit of equality pervades friendship" (11). Friendships stress qualities that make them appear equal which then reduces the chance of exploitation (Rawlins, 1992). When discussing adult friendships Rawlins reports that, "Since a spirit of equality pervades friendship, the inequality and unilateral control of one person over another dictated by organizational authority structures typically inhibits truly mutual friendships" (164). On the canoe trip, the organizational structure puts one participant in charge of the others on a rotating daily basis. It may be possible that this inequality and how participants manage this inequality affects their relationship development.
Application and Limitations of Social Exchange Theories

The researcher expected social exchange theory to be relevant in this research study because she foresaw the research participants developing communal and exchange relationships with one another. Because of the limited amount of resources available to the participants it was expected that a complicated system of exchanging goods and services would emerge. Social exchange theory points the researcher to observations of equity and equality in the exchange of resources on the canoe trip. What comes to mind when examining social exchange theory is that physical resources are not the only resources on a canoe trip. Besides the exchange of goods and services, information or individual's skills and talents could become important rewards.

In order to identify theories of social exchange among the research participants the researcher looked for answers to the following questions in her observations, the graphs, questionnaires and follow-up interview notes: What items and communication are being exchanged between participants? Who exchanged with each other? When did individuals consider an exchange to be inequitable or unequal? How did the participants' interdependence affect their exchange?

A limitation of social exchange theory is that it underplays the role of altruism in the actions of research participants on the canoe trip. Social exchange does not completely account for actions done out of the "goodness of someone's heart." The drawback to the use of social exchange theory is that the researcher might assign a reward or cost to an individual's actions which is inaccurate or misleading. Maybe a participant did something just to be nice, but the researcher assumed that an unrelated event was a reward for this individual's actions. Having participants' graphs and questionnaires will help counteract this problem by providing details and input for many of the participants' actions.
Self-Disclosure

Another key element in the development of relationships is self-disclosure (Cline & Musolf, 1985). As Dickson-Markman reports, self-disclosure may simply be defined as, "any information about the self that is communicated to another person..." (1986: 256). When you self-disclose you make yourself known to another person (Chelune, 1979). Since the participants in this study cannot leave the group or exit situations in which they may normally, the researcher expects the participants to be very aware of and in some cases to highly control to whom they disclose information.

Social Penetration Theory

Altman and Taylor's (1973) book, "Social Penetration" explored a theory of interpersonal development based on the breadth and depth of communication. They compared layers of a person's identity to layers of an onion. On the surface of the onion, or a person's identity, is surface level information which would easily be exchanged. At the core of the onion is highly personal information. Individuals would be hesitant to share this information early in a relationship. Altman and Taylor explain that not only is the level of information shared (layer of the onion) or depth important, but so is the breadth or different kinds of information shared with others (surface area of the onion).

Altman and Taylor (1973) also examined how other aspects of communication affected relationship development. Three areas they focused on were: (1) personal characteristics of participants, (2) outcomes of exchange, and (3) situational context (p. 4). As they explain, "...social penetration is intended to convey the idea that understanding the growth of social bonds requires analysis of 'whole people,' not separate individual behaviors taken one at a time" (p. 6). The social penetration process describes four general stages which are: orientation, exploratory affective exchange, full affective exchange, and stable exchange (Altman & Taylor, 1973).
Factors Affecting Self-Disclosure

In analyzing the value of self-disclosure, there are some factors to consider for both the self-disclosurer and the recipient. First, for the self-disclosurer two factors play a role in the value of their self-disclosure. Chelune (1979) explains these two factors as:

(1) how the disclosure satisfies his or her needs for expression, self-clarification, and social validation, and how strong these needs are; and (2) how effective self-disclosure is in developing and maintaining interpersonal relationships that vary in their structure of interdependence (from close, friendly, cooperative relationships to highly competitive or even exploitive relationships) and how strong the disclosurer's needs for developing these relationships are (p. 175).

Chelune (1979) also identifies three factors that are important in assessing the value of self-disclosure for the recipient. These factors are: "(1) how well the disclosure reduces the recipient's uncertainty about the reasons for the disclosurer's behavior; (2) how important this reduction in uncertainty is for satisfying the recipient's needs (such as the need for power over other people, the need to satisfy curiosity, the need to maintain close relationships); and (3) the availability of this information" (p. 175). Chelune also points out that self-disclosure is valuable not only because it may satisfy needs, but because it may be enjoyable (1979).

The sex of a relational partner is an important factor of self-disclosure to take into consideration. According to previous studies females tended to report more disclosure to other females than to male partners (Cline & Musolf, 1985) and tend to disclose more overall (Altman & Taylor, 1973). The anticipated length of a relationship is also a factor to consider and Cline and Musolf report that relative to males, females gain greater personal security from long-term relationships in comparison to short-term relationships (1985). In addition, another factor affecting self-disclosure is the anticipated level of a partner's intimacy. Here Cline and Musolf (1985) report that, 'Females' interpretations are
based on feelings, while males' interpretations are based on control. Compared to males, females are more likely to engage in and give greater value to, intimate disclosure" (p. 46).

In a study comparing different age participants, patterns emerged in regards to closeness and self-disclosure. "The younger groups were more likely to express their feelings, to ask about personal problems, and confide their own personal problems in a close relationship than were the older group" (Dickson-Markman, 1986: 260). In like manner, Dickson-Markman found that within older groups, valence of self-disclosure was more negative than when compared to younger groups (1986). Similarly, Petronio et al. (1984) also discovered differences in the prerequisites to disclosure between men and women. Characteristics of the receiver and the sender were found to be more salient for women than for men. For example, women, more than men, look for receivers that are trustworthy, respected and open and as a sender they feel it is important to be frank, be accepted and not feel anxious (Petronio et al., 1984). In setting up their study on prerequisite conditions for self-disclosing, Petronio et al. state, "Self-disclosure is the mechanism through which we adjust our privacy boundaries" (1984: 268).

On a canoe trip specific factors will affect the participants' self-disclosure. Those factors may include but are not limited to the sex of the participants, age of the participants, their expectations for an ongoing relationship after the trip, or environmental factors such as isolation and mutual dependence.

Communication Boundary Management

One model of managing disclosure is the communication boundary management (CBM) perspective. Since sharing or disclosing private information has potential consequences or risks, such as making us feel vulnerable, we develop boundary structures which help us manage such risks (Petronio, 2000). Petronio (2000) reports that four dimensions define boundary structures. These four dimensions are: ownership, control, permeability, and levels. Moreover, boundary structures are managed by rules which regulate the flow of information. Certain criteria affect the development of these rules.
such as: culture, individual characteristics, self-esteem, motivation and gender may also play a role (Petronio, 2000).

People actively regulate their boundaries. Petronio (1994) explains that, "Boundary control is used to protect feelings of vulnerability and manage the risks to autonomy and independence." In an article about adolescents invasion of privacy by their parents based on CBM theory Petronio (1994) highlights the fact that parents and their adolescents may experience boundary conflict which results from the fact that they do not always define privacy boundaries similarly. The "right" to information parents may feel they should possess does not always harmonize with the "right" to privacy adolescents may feel they should possess. On the canoe trip a similar boundary conflict may develop between the co-guides and the participants with the regards to the "right" to have access to certain information.

In Petronio’s (1991) study about marital relationships she explains that boundary management for the disclosing spouse is regulated by five variables: (1) need to tell, (2) predicted outcomes, (3) riskiness of telling this information to the partner, (4) privacy level of the information, and (5) his or her degree of emotional control (p. 315). On the other hand, boundary management for the receiving partner is regulated by three variables: (1) evaluating expectations, (2) attributional searches, and (3) determining a message response.

Furthermore, Petronio (1991) identified five sources that a marital partner may take into account, "in order to make attributions for assessing the spouse's motivations and expectation in communicating disclosive information..." (p. 321). These five sources are: (1) relational memory that is used to employ known information (2) the content of the message, (3) the context in which the disclosure of private information is made, (4) the environment in which disclosure occurs, and (5) the nonverbal cues. Even though Petronio identified these five sources in the context of a marital relationship the sources
are likely to be transferable to individuals seeking to assess their friend's motivations and expectations regarding self-disclosure.

**Self-Disclosure and Friendship**

In a study identifying people's friendship rules, Argyle and Henderson (1984) found that women's friendship rules encompassed self-disclosure and emotional support more than men. Like Argyle and Henderson (1984), Hays (1989) found that women reported providing their friends with more informational and emotional support than men. And in line with previous research Hays (1989) found that females reported more satisfaction in their same-sex interactions with friends than did males. Altman & Taylor (1973) also state that friends in comparison to acquaintances have more ways to say the same thing.

**Application and Limitations of Self-Disclosure Theories**

There are many ways in which the researcher could examine the applicability of theories of self-disclosure to the changes in the relationships of the participants in this study. For example, the researcher could look to the demographic characteristics of the participants for some help. Did the age of the participants affect their willingness to self disclose? Since the participants are young (ages seventeen, eighteen, and twenty-three) were they freely willing to express their feelings, ask about personal problems, and confide their own personal problems to others as suggested by Dickson-Markman? Likewise, did the participants' sex affect their level of self-disclosure as suggested by Cline and Musolf? Did the participants and authority figures such as the co-guides experience boundary conflict regarding the "right" to information as discussed by Petronio?

In using theories of self-disclosure to examine relationship development among friends it is important to try to accurately distinguish among the breadth and depth of participants' communication. A subject that may be private, a deep layer of the onion, for one individual may be a surface layer of the onion for another individual. Self-disclosure
theory does not give us a universal standard in order to judge the depth and breadth of information.

Uncertainty

Uncertainty reduction theory posits that when two individuals meet a primary goal is to reduce uncertainty about each other. It also proposes that high levels of uncertainty are related to high levels of relational dissatisfaction. Uncertainty reduction not only centers on collecting information about who a person is and their values and beliefs, but uncertainty reduction also tries to predict and explain how a person will act. As one researcher explains, "...uncertainty reduction theory focuses on how human communication is used to gain knowledge and create understanding" (Griffin, 1991: 153).

One may argue that the purpose of self-disclosure is to reduce uncertainty. However, language cannot only be used to share information about oneself and others, but it can be used to create uncertainty (Berger & Bradac, 1982). Berger and Calabrese (1975) explain that their view of uncertainty reduction contains both elements of prediction and explanation. Not only do we attempt to make our behavior and others more predictable but we also attempt to explain our behavior and others. In this way uncertainty reduction may be related to self-disclosure.

Uncertainty reduction may also be looked at as rewarding, but not always because we cannot always predict the outcome of situations. As Berger and Calabrese (1975) point out, if an individual could predict all their interactions in a relationship this might lead to boredom, which is also negative or a cost. Likewise, sometimes when two individuals meet one may not want to gain knowledge of the other person. A teacher's knowledge of a student's academic misconduct is an example of a situation where the information gained would be burdensome (a cost). Moreover, there are times when an individual may receive "too much information" which is also a cost. Afifi and Burgoon found that uncertainty, "may often be tolerated in cases where the expected information is undesirable" (1998: 255).
Continuing the research of Berger and Calabrese, Sunnafrank (1986) expanded on the research of uncertainty reduction in the beginning of relationships to later relationship development stages. Sunnafrank (1986) expands on the ideas of other researchers and gives individual's knowledge of future relationship rewards and costs a larger role in uncertainty reduction. Uncertainty reduction may not be the main goal but instead the means of achieving an outcome.

Berger and Bradac (1982) suggest that for a relationship to continue, the individuals must continually "update" each other with knowledge about themselves, their partner, or their relationship (p. 13). Berger and Bradac (1982) identify three conditions that drive uncertainty reduction. One condition is when another individual deviates from a norm or expectation. A second condition is when an individual has an expectation of future interaction with another person. A third condition is the maintenance of rewards and costs. Stated differently, a person will seek uncertainty reduction when they want to balance their relationship with a rewarding or punishing outcome. When a relationship ends Berger and Bradac explain that uncertainty reduction continues. Individuals in this situation also engage in prediction and explanation activities.

Berger and Bradac (1982) explain three types of uncertainty reduction strategies. When passive strategies are used, the target has no knowledge that they were being observed. Unobtrusive methods are used to collect information. When active strategies are used, the target still has no knowledge that they are being observed. The observer has asked third parties for information or has manipulated the environment to get the target's response. Third, when interactive strategies are used, the observer and the target interact. Berger (1988) explains that interactive strategies are not necessarily preferred because targets may purposely deceive the observer, which would be avoided with the use of passive and active strategies.
Uncertainty Reduction in Friendship

Uncertainty reduction plays a role in the initial interactions between strangers. As Berger and Bradac (1982) explain, individuals come into contact with a large number of people throughout their life, but most people state that they only have five or six close friends. How then do we move from strangers to close friends? Uncertainty reduction plays a role in this process. Therefore, it is important to better understand the conditions in which individuals may seek to gain more knowledge about others.

Roloff and Berger (1982) summarize previous research about three antecedents to gaining knowledge. First, an individual would seek knowledge about another person if that person controlled rewards and costs for the individual. Second, if the individual thinks they will have to continue interacting with the person in the future they will gain knowledge about the person. And finally, if a person engages in "deviant" behavior an individual will seek to gain knowledge about this person in order to better understand their behavior.

On a canoe trip there are benefits to gaining knowledge and creating understanding between participants. On a trip where you have to depend on others in critical situations, knowledge about their attitude and skills is very valuable. Therefore, uncertainty reduction may play a large role in the initial interactions among research participants.

Application and Limitations of Uncertainty Reduction Theories

In moving from strangers to friends, close friends, or enemies in a month period uncertainty reduction would presumably play a role. One thing the researcher looked for was the reasons why participants gained knowledge from each other. Did they anticipate a future relationship after the canoe trip or were they possibly seeking information to explain another participant's behavior? Furthermore, the researcher looked to identify the use of passive, active and interactive uncertainty reduction strategies as explained by Berger and Bradac. For example, did a participant's target know that they were being observed? Moreover, in assessing the role and applicability of uncertainty reduction the
researcher could assess how rewarding participants viewed uncertainty reduction. Was uncertainty tolerated among participants if they expected information to be undesirable?

An obvious limitation of uncertainty reduction is that it focuses on the attainment of information in initial encounters. Overall, uncertainty reduction is cast in a positive light as a way for people to gain knowledge and create understanding; however, how often do others really want to know more about another person versus just tolerating additional information?

**Dialectics**

Closely related to theories about social penetration or self-disclosure, uncertainty reduction, and cost and rewards is a discussion of dialectical tensions such as openness and closedness. Simply defined, relational dialectics are tensions or opposing forces in relationships. In 1990, Baxter studied three dialectics within romantic relationships which are: autonomy-connection, openness-closedness, and predictability-novelty. She discovered that these three dialectics were found in three-fourths of the relationships stages identified by couples in romantic relationships. The high prevalence of dialectical tensions led Baxter (1990) to state that couples must be highly adaptive in coping with these dialectics.

As another researcher, Pawlowski, explains, "To account for relational development that includes both stability and instability (among other opposing forces), the dialectic perspective emerged. This theoretical perspective allows for the understanding of a wide range of tensions within relationships" (1998: 396). Similarly, dialectical change is defined as the relationship between stability and flux (Baxter & Montgomery, 1996).

In discussing the dialectic of stability versus change, Altman et al. discuss a number of dimensions which can affect a relationship's pattern. "For example, cycles of openness-closedness can differ in (1) the frequency with which participants shift from openness to closedness (i.e., the number of cycles per unit of time), (2) the amplitude, or absolute amount of openness-closedness, (3) the regularity, or redundancy with which
given cyclical patterns recur, and (4) the relative duration, or proportion of time openness
and closedness appear in a given cycle" (1981: 139-140). Altman et al. state that different
patterns can be adaptive over the history of a relationship (1981). Montgomery echoes
this finding in her study of maintenance strategies versus relationship change (1993). As
she explains, "Rather, the dialectics of social phenomena assume no ideal end state.
Different adaptations and transformations are viewed as appropriate for different times
and places" (1993: 210).

Similarly, Pawlowski (1998) also explains that just because two opposite or
conflicting dialectics are both preferred in some way does not mean there will be conflict
within that relationship. Relationships are dynamic and dialectical tensions are always
experienced within relationships; however, dialectical tensions will be experienced with
different degrees of significance and frequency (Pawlowski, 1998).

Dialectical theory arose in part from recognizing the limits of other theories of
relationship development. In stage theories dyads/couples move towards an end point.
However, dialectical theory states that relationship development is unidirectional. Also,
Baxter (1990) explains that an unidirectional pull must not be the case within uncertainty
reduction and social penetration theories. Altman et al. (1981) argue that individuals do
not seek constant stability or balance in relationships. Their dialectic perspective
hypothesizes that, "...relationships can exhibit cyclical, reversible, and nonlinear processes,
not necessarily only unidirectional and cumulative processes" (1981: 109). Specifically, in
looking at social penetration theory, Altman et al. (1981) discuss the idea that people do
not constantly move towards greater closeness. They go through periods of withdrawal
and distance. Altman et al. (1981) argue that in social relationships people are not on a
unidirectional path. They explain that social relationships are not on a mission to reach
some final state. Instead they discuss the idea that, "...depending on circumstances,
relationships can be open or closed and stable'or changing. If there is an ideal in our
thinking, it is the capability of persons and relationships to exhibit flexible behavioral
patterns that are congruent with situational, personal, and interpersonal demands at a given time" (1981: 125).

As Altman et al. explain, social penetration theory and privacy regulation have traditionally studied the individual instead of a dyadic unit (1981). However, Montgomery (1993) states that, "The dialectical perspective's focus on context also encourages researchers to look beyond the isolated relational unit of analysis to ask questions about the interrelatedness of various social units in developing and transforming dialectical tensions" (p. 220). This research study looked at the context of a canoe trip to see how social networks affect relationship development among dyads.

**Dialectics in Friendship**

Rawlins (1992) discusses dialectics inherent in communicating with friends which are categorized under two main classes: contextual dialectics and interactional dialectics. Rawlins explains, "Contextual dialectics derive from the place of friendship in the prevailing social order of American culture" (9). One contextual dialectic is the dialectic of the private and the public. Simply, this dialectic discusses friendships marginal place in society as a non-kin voluntary relationship. Another contextual dialectic is the dialectic of the ideal and the real. As Rawlins explains, this dialectic is about how, ". . . people are socialized into normative expectations regarding certain ideal conceptions and practices of friendship" (1992: 11).

Interactional dialectics regard the attempt to understand and code "dialectical patterns of interaction identified within friendships" (1992: 15). One interactional dialectic is the dialectic of the freedom to be independent and the freedom to be dependent. Another is the dialectic of affection and instrumentality. Third, is the interactional dialectic of judgment and acceptance. Last is the dialectic of expressiveness and protectiveness.

Because of the circumstances surrounding this research study the balancing of dialectics is likely to become an issue for research participants. The dialectic of autonomy
versus connection will be salient because of the general lack of privacy available to participants on the trip. Likewise, the participants will need to balance the dialectic of novelty versus predictability. On the canoe trip they encountered many activities and situations which were novel to them. This study examined how they balanced the daily novelty with their need for predictability. Furthermore, the dialectic of openness versus closedness may also become an issue as participants are limited to interactions with eleven other individuals for the duration of a month.

**Application and Limitations of Dialectical Theories**

In order to look at the applicability of dialectical theories the researcher focused her review of the collected data on the following questions: What activities did participants engage in to manage the relationship of stability versus change? What dialectics seemed to be salient in this context and for what reasons? How did the dialectics identified by Rawlins affect friendship in this situation? More specifically, how did participants manage the interactional dialectic of independence versus dependence or the contextual dialectic of private versus public in a situation where they were isolated and mutually dependent?

A limitation of dialectical theory is that it is very broad. There are numerous dialectics which could affect relationship change. The challenge then is to not use dialectics as the scapegoat for relationship change but instead as a counter to the linear progression presented by stage development theories. In this setting it is also important to remember that the presence of two opposite dialects in a relationships does not mean that there was conflict in that relationship, the two are not synonymous.

Now that stage development theories, social exchange theories, self-disclosure theories, uncertainty theories, dialectic theories have been examined, a methodological tool used to study this subject matter will be presented. This methodological tool is the turning point analysis.
Turning Point Analysis

Four decades ago research was conducted that established the "turning point" as a method of analysis in understanding relationship development (Bolton, 1961). In that pioneering study Bolton established "turning points" as events that change a relationship (1961). In his study, Bolton suggested studying mate selection, "...not only in terms of variables brought into the interaction situation but also as a process in which a relationship is built up, a process in which the transactions between individuals in certain societal contexts are determinants of turning points and commitments out of which marriage emerges" (1961: 235). Bolton's idea of "turning points" conceptualized instances of change in relationships and emphasized a process view of studying relationships (Bolton, 1962, Baxter & Bullis, 1986). Since Bolton's (1961) study of mate selection additional researchers have continued to use turning points to focus their research on romantic relationships. Turning point analysis is a useful methodological tool for describing relational changes and the points at which these changes occur.

Bolton suggested a new way to examine sociological propositions emphasizing the process view of relationships (1961). In concluding his exploratory study Bolton stressed the need to gather information from human subjects as to what happens in their relationships (1961):

If it is true that the heart of the process approach is the view that the transactions between subjects are determinants in the outcome of social encounters, then it becomes imperative to gather information on what actually transpires between people in building up their social acts as well as information on what initially composes the situation (p. 240).

To gather turning point data, researchers often use the Retrospective Interview Technique (RIT). In 1981, Huston, Surra, Fitzgerald, and Cate produced a seminal piece in turning point literature which studied the changes in premarital relationships and courtship patterns. Huston et al. (1981) based on the "thematic analysis of unstructured retrospective interviews" used by Braiker and Kelley (1979) and retrospective techniques
commonly used "with intellectual profit in the social sciences" established the Retrospective Interview Technique (RIT) as a useful methodological tool for relationship development research (pgs. 59, 61).

The Retrospective Interview Technique asks participants to identify turning points (descriptions of events) as well as to provide explanations as to why those events are significant. While identifying turning points participants also plot these points on a graph which indicates the rate and direction of closeness, commitment etc. of the turning point in their relationship on the ordinate or y-axis of the graph. The abscissa or x-axis indicates the relationships' duration which is often plotted in months. (See appendix A for illustrations of RIT graphs: Baxter & Pittman, 2001, p. 5; Lloyd & Cate, 1985, p. 424.) In early studies turning points were thought of as periods of time between two plotted points where changes may occur (See Appendix B for example graph: Huston et al., 1981, p. 64). However, later studies used turning points to indicate singular events rather than a period of time (Baxter & Bullis, 1986; Bullis, Clark, & Sline, 1993; Baxter, Braithwaite & Nicholson, 1999; Baxter & Erbert, 1999).

In some studies participants are asked to draw lines to connect the turning points they identified which represents the overall pattern of their relationship (Bullis & Bach, 1989). Huston et al. used the RIT graphs in their research studies to "group individual trajectories to marriage into meaningful courtship styles" (1981: 66). From their analysis of individual trajectories in their first study about premarital relationships they identified three types of courtship: a) accelerated courtship, b) intermediate courtship, and c) prolonged courtship (Huston et al. 1981). In their second study regarding courtship Huston et al. (1981) developed four trajectories from the RIT graphs: a) accelerated-arrested courtship, b) accelerated courtship, c) intermediate courtship and d) prolonged courtship.

More recently, in her turning point research using RIT graphs, Golish (2000) identified seven patterns of changes in closeness between adult children and their mothers.
and fathers. The seven patterns she identified from the graphs are as follows: a) single major disruption, b) sustained, low to moderate degree of closeness, c) sustained, high degree of closeness, d) gradual increase of closeness, e) irregular cycle, f) disrupted progress and g) gradual decrease in closeness (see Appendix C for Golish's RIT graph summarizing these patterns, p. 89). Other researchers have done similar analyses of patterns in RIT graphs. Graham (1997) identified trajectories for post-divorce relationships. Baxter, Braithwaite, and Nicholson (1999) identified five trajectories for blended families.

Not only can turning point analysis using RIT graphs provide general patterns of results or trajectories but it can also identify the reasoning and details behind individual plots on the RIT graphs. As Bullis et al. concluded about their study of romantic relationships, "It illustrates the ability of turning point analysis to work back and forth between details and broad patterns, unravel complex questions, understand positive and negative changes, and address a variety of contemporary issues" (1992: 24).

As mentioned, since Bolton's identification and use of turning points other studies have also employed this research tool in the study of romantic relationships as in the study by Huston, Surra, Fitzgerald & Cate, 1981. Furthermore, in 1985, Lloyd and Cate studied relationship development and dissolution while identifying significant turning points in premarital relationships. In 1986, Baxter and Bullis asked research participants who were romantic partners from 40 relationships to identify events or occurrences (turning points) that were significant in their romantic relationship. In 1988, Surra, Arizzi, and Asmussen studied commitment and marital relationships. In 1992, Bullis, Clark, and Sline conducted a study similar to Baxter and Bullis' (1986) previous research on romantic relationships. In this study Bullis, Clark, and Sline (1992) used an older sample to see if their results would confirm the earlier studies categories and findings on romantic relationships. In 1997, Surra and Hughes used the RIT procedure to have research participants identify changes in commitment in their premarital relationships. Pawlowski (1998) studied
dialectical tensions in marital relationships using turning point analysis. Similarly, Baxter and Erbert (1999) also studied romantic relationships. More specifically, they sought, "... to examine an alternative way to understand turning points, one focused on turning points as possible occasions of dialectical interplay" (Baxter & Erbert, 1999: 552).

More recently turning points have been used to focus research studies beyond those about romantic relationships. However, before we examine the evolution of turning point research it is important to understand why researchers use turning point analysis as a methodological tool.

Similar reasoning underlies researchers' choice of the use of turning point analysis. In 1985, Lloyd & Cate decided to use a turning point analysis because they felt stage theories did not adequately explain the dynamics that influenced the development and maintenance of relationships. Golish (2000) raises a similar argument by stating that many theories of relationship change are too limited which stems from their linear view. The turning point analysis fits studies of relationship development so adeptly because this type of analysis conceives and appreciates the dynamic and changing nature of relationships.

Likewise, Bullis and Bach (1989) critique phase models of development of mentor relationships; in part, because these models are too broad in their construction. Furthermore, these researchers contend that descriptions of phases are not also adequate descriptions of change. In brief, Bullis and Bach claim that mentor developmental models need to be looked at in a new way, "Inductive, special studies of relational change are needed" (1989: 201). Therefore, in their study, Bullis and Bach utilize turning point analysis. The benefit of such a methodology is that, "Turning points are of central concern to a model which focuses on change points rather than on a series of stable phases" (Bullis & Bach, 1989: 202).

Baxter, Braithwaite, & Nicholson (1999) provide a detailed four-point summary of the basic argument against stage theories in their turning point analysis of the development of blended families:
First, such models presume that a single sequence of stages captures the experience of all developing relationships and de-emphasize the possibility of multiple developmental trajectories. Second, such models are predicated on an underlying assumption of linear progress.... Third, stage-based models present relationship development as a series of sequential 'plateaus' that somehow are punctuated by transitions from one stage/plateau to another. Unexplained in such models are the forces or factors that move a relationship from one stage/plateau to another.... Fourth, stages often have overlapping characteristics that result in fuzzy boundaries between one stage and another; therefore, the 'stage' may be a less fruitful unit of analysis because of its conceptual murkiness.... (pgs. 293-294).

Turning point analysis provides an alternative to and enhances stage development and other linear theories. As Baxter and Bullis (1986) explain, if we investigate the intensity, valence, and sequencing of turning points we will have greater, "insight into the basic nature of relationship dynamics" (p. 470). In summation, "Turning point analysis can enhance theoretical models of relational change by examining more closely the process of relational development, maintenance, and deterioration" (Golish, 2000: 83). Moreover, coupled with the RIT procedure which has continued to be used to identify turning points other benefits to this analysis are noted such as the rich qualitative data the RIT procedure provides.

Researchers have explained the importance and advantage of incorporating rich qualitative data such as interviewees' explanations and attributions into research studies about relationship development (Lloyd & Cate, 1985). For example, Duck (1982) discussed relationship disengagement and dissolution and stated that we should examine relationship dissolution accounts, "...vigorously to explore their underlying dynamics and to find out what they tell us about the serious business of grave-dressing a dead relationship" (p. 28). Likewise, Harvey et al. (1982) emphasized an attributional approach to studying relationship breakdown and dissolution. The emphasis they endorsed in their research, "...is upon the dynamics and complexities of how people interpret aspects of their relationships such as conflict" (p. 125).
The RIT procedure collects research participants' attributions and evaluations in their close relationships. These attributions and evaluations are participants' attempts to understand occurrences in their personal relationships (Lloyd & Cate, 1985). Lloyd and Cate summarize the benefits of the RIT procedure by stating, "This method results in rich, descriptive data set which is based on individuals' perceptions of the forces that affect their relationships" (1985: 421).

Since the study of romantic relationships turning point analysis has expanded into many other areas of relationships and relationship development. Graham (1997) studied relationship development in post-divorce individuals using turning point analysis via RIT. Baxter and Pittman (2001) examined how couples communicatively remembered turning points in their romantic relationships. Some researchers have also studied families: Baxter, Braithwaite, and Nicholson (1999) have used turning points to study the development of blended families. Similarly, Golish (2000) used turning point analysis to study the changes in closeness between adult children and their parents. Other researchers have studied organizations and academia: Bullis and Bach (1989) used turning point analysis to critique phase models of development of mentor relationships. Barge and Musambira (1992) did a turning point analysis to identify what events affect chair-faculty relationships.

Turning Points in Friendships

As you can see most of the research regarding the use of turning points has focused on romantic relationships. Only a few studies have been done outside of romantic relationships such as Barge and Musambira's (1992) study of department chair and professor relations. What is important to note here is the lack of research in nonromantic relationships utilizing turning point analysis.
Summary

The literature review focused on theories that were used to help understand the relationship development of friends. Stage development, social exchange, self-disclosure, uncertainty and dialectics were discussed in regards to their basic premise, how they have been used in the study of friendships, how they were applied in this study and any possible research limitations they present. Furthermore, turning point analysis was examined to give us background information regarding a commonly used method in the study of relationship development.
Chapter III: Methodology

The participants in the current research study were informed about the intent of the research, but they lived their lives uninterrupted on a month long canoe trip and their daily experiences were observed. Wood (1982) encourages studies about relationship development to collect "free response data" which allows subjects to explain in their own terms their relationships (p. 82). The methodology for this research project was built around that suggestion.

The intense experience that provided for the study of relational development is a wilderness survival trip, a canoe trip, as described in chapter one. The following section will discuss the research participants in more detail as well as the procedure and use of multiple methods: participant observation, the Retrospective Interview Technique (RIT), and questionnaire. Furthermore, this section will also include a discussion of the limitations of this research study.

Participants

The sample used in this research study consisted of eleven women who participated in a month long canoe trip into Canada in the summer of 2001 through Les Voyageur Inc. (LVI) a non-profit, Minnesota-based organization. Eight participants were seventeen years old at the time of the trip, two turned eighteen during the summer and one, a co-guide, was twenty-three years old at the time of the trip. All of the research participants live in Minnesota. Some participants were friends before the trip, some were acquaintances, and some participants had never met. Participants underwent a thorough screening process through Les Voyageurs Inc. which assured that they were physically and psychologically fit to undertake a month long canoe trip.

The small sample size in this study is justified by the rich, descriptive data that was collected. As Wood (1982) states regarding relationship development, "What is sacrificed in terms of 'sample size' is outweighed by what is gained in terms of detailed information..."
on how persons in given relationships define their bonds and their actions within them" (p. 82).

Procedure

Permission was obtained in advance before the start of this research study. The researcher first obtained permission from the director of LVI to conduct a research study within the organization; more specifically, permission was obtained from the director to ask participants from one of the ten crews going into Canada during the summer of 2001 to participate in this research study. Secondly, the researcher obtained permission from the Institutional Review Board (IRB) at the University of Montana to conduct the research study. Since some of the research participants were under the age of eighteen at the time of the study and therefore were considered a vulnerable population the researcher proved to the IRB that the young women would not face excessive risks by participating in this study.

After obtaining permission from the director of LVI and from the IRB, the researcher presented her study to the participants of the canoe trip she was co-guiding and their parents. After thoroughly explaining her background and the focus of the research study, permission was obtained from each participant through written consent forms. Moreover, since many of the young women in this study were under the age of eighteen permission and consent forms were also obtained from their parent(s). Participation was voluntary and did not affect their status within the organization.

Permission was obtained from all the members of the crew during July 2001, upon which research commenced. Observations were recorded during pre-trip activities, during the trip, and during post-trip activities. Furthermore, the trip log (which records daily events and feelings) was available to the researcher as a supplement to her observations.

During the canoe trip the researcher was conscientious about her dual roles of guide and participant. Therefore, all notes were taken unobtrusively. The majority of the
researcher's notes were taken at night while people were journaling, reading, or sleeping in their tents.

As mentioned, after the canoe trip was over, the participants were taught how to graph turning points of their relationships with the others on the canoe trip using the Retrospective Interview Technique (RIT) and were asked to respond to a list of questions. Once the participants understood how to complete the RIT graphs and questionnaire they were allowed to take these items home. This allowed them as much time as they needed to finish and return these items. In addition, this allowed the participants adequate time to reflect upon their experience and to reread their journal while providing the data for this study.

The researcher started to receive completed RIT graphs and questionnaires within two weeks of distributing these items. All of the graphs and questionnaires were returned within five months of distributing them to the participants which resulted in an eventual return rate of 100%.

Triangulation

Three methods were used to collect data in this research study. The use of multiple methods allowed for a more complete picture of relationship development and for rich data gathering. The three research techniques were: participant observation, graphs identifying turning points using the Retrospective Interview Technique (RIT), and a brief questionnaire.

As Wood (1982) states, "To understand enduring attachments more complicated and more innovative methods of study will be needed. At a minimum I suspect researchers will need to rely on methods that avoid imposition of researcher-defined categories for data" (p. 82). By using participant observation, the RIT procedure, and a questionnaire this research study avoided assigning data to previously defined principles by categorizing the results of these three methods inductively. Likewise, since this study was
designed to compare and contrast theories of relationship development, the research results were not forced to fit within the framework of one of these theories.

*Participant Observation*

Social science research, including studies done in the area of communication are often done in laboratory or university settings. Some researchers recognize problems brought about by our "overreliance" on research done in laboratory settings (Hays, 1984: 96). In one study, Hays (1984) used undergraduate psychology students to investigate the development and maintenance of friendships. In the discussion section of his article Hays recognizes some of the limitations such research warrants. For example, Hays states, "In addition, one cannot be sure of the ways in which the friendships studied here reflect generic characteristics of friendship versus the influences of contextual factors unique to life in a university setting" (p. 95).

Research following these lines can pose a few problems. Were the results tainted because of the "unreal" setting the laboratory may have provided? Did the undergraduates provide results (in their lower division communication classes) that they knew the researcher (often their instructor/professor) was looking for?

Many times studies about relationship development are also strangely context free. Often, they do not explain how environmental factors play a role in the outcome of their findings (Altman & Taylor, 1973). The current study embraced the context surrounding a month long canoe trip. Through observational research, this study looked to the environment to provide reasons for relationship development patterns and results. As stated by Wheeless et al, "From a developmental perspective, an interpersonal relationship is an organized structure; it has an existence that can be observed" (1984: 219). Overall, the goal of this study was to add rich descriptive data to the existing research concerning relationship development. It allowed us to better understand relationships between same-sex pairs and the role environmental factors play in relational development.
This study took the exploration of communication out of the classroom and into the bush—quite literally. Theories of relationship development were explored over a couple hundred miles of terrain that spanned from the start of the trip in a small fishing village of Pine Dock, Manitoba where the researcher and participants were flown into Lake McCusker, Ontario to M. V. Edgar Wood Ferry dock on Lake Winnipeg, Manitoba where the trip ended twenty-six days later. The participants were observed as they carried out their daily business. As Alberts et al. explains, "The strongest advantage of observational research is the naturalness of the setting and the greater likelihood that people will act and communicate as they typically would" (1993: 21). That was the goal of this study— to observe but not to influence the participants.

Unlike the "reality" programs so popular today, cameras and microphones were not stuck in participants' faces as they adjusted to their sometimes unforgiving living quarters. The researcher did not have a snug tent and cot away from the participants from where she watched the participants interact. Instead, thoughts and notes were jotted on paper while the researcher canoed, portaged, laughed, fell, bathed, and cried with the participants.

The type of participant observation used in this research study followed the definition below. The participants were observed in situ. Situations were watched, not created.

Field work refers... to observation of people in situ; finding them where they are, staying with them in some role which, while acceptable to them, will allow both intimate observation of certain parts of their behavior, and reporting it in ways useful to social science but not harmful to those observed (Hughes, 1960: v).

As with all types of research, participant observation has its own problems. This type of research is not above the laboratory/university settings in that it does indeed carry with it unique burdens. One of the most obvious is the delicate role balance of the
researcher—the participant observer. There is an "unending dialectic" between the role of the researcher as participant and as observer and reporter that, "is essential to the very concept of field work. It is hard to be both at the same time" (Hughes, 1960: xi).

Another problem with field work is that it is labor intensive. The researcher has to have adequate time, energy and financial backing to spend time in the field. Laboratory and university settings are obviously more accessible for most communication research.

Deciding on a research method(s) can be a difficult compromise between pros and cons. In this study, the research method of participant observation was a conscientious choice to find a more "real" setting in which to explore relationship development while dealing with the struggles of time, energy, and money. Despite these potential problems, the benefits are obvious. Participant observation can offer us a clear look at how people conduct themselves and why (Junker, 1960: 2). In field work, a phenomenon is observed in order to collect information; a phenomenon is not produced in order to collect information.

During the month long canoe trip the researcher spent many hours with the participants. In fact, not counting pre- and post- trip activities, the researcher spent over 600 hours with the participants on the trail. Many of these 600 hours were spent "clocked-in" to observation with all, some, or one of the participants. From a five minute conversation about what to make for breakfast, to a two hour portage through the woods, to a five hour stretch of paddling, the researcher observed many events that were unfolding between participants.

Each day the researcher kept records on what the crew encountered, from the weather, to what they ate, to how many portages they had and how many rapids they shot. More specifically, the researcher recorded any events that seemed to especially affect the crew. Even though the researcher was not privy to everything that happened on the trail, she did take detailed notes on events that happened between dyads she had observed. The researcher also noted how environmental factors affected the crew. For example, she
noted how lack of privacy and isolation affected the events of the day and how individuals acted towards each other. All of the researchers notes were made in her journal which was stored in her guide pack and was off limits to the rest of the crew.

Once in a while when the entire crew was taking a break on the trail, the researcher did step back from the group to journal, read, or rest. It is also important to note that her role as researcher never became more important than her role as guide. Being a guide meant that those duties had to take precedence over note-taking or observation.

Certain activities or events predicted when the researcher was able to observe the participants or when she was not present for observation. It some areas her observation was limited such as while canoeing and at the end of a night in a tent, and in other ways she spent many hours observing while with the whole crew during activities such as breaking camp and portaging.

The time the researcher spent with each of the other eleven individuals varied by canoe and sleeping arrangements that rotated on a daily basis. More specifically, while canoeing the researcher was only able to observe the two other individuals in the canoe and at the end of the night she was only able to observe the three other people in her tent.

Furthermore, there was a day on the canoe trip when the participants had a "solo" night. On that night the researcher was only with the other co-guide. The day after the "solo" night was "trio" day when the whole crew traveled and camped in groups of three which met up the next day. On "trio" day the researcher was only able to observe the other co-guide and one participant.

Besides canoeing and sleeping much of the day was spent in group activities. In the morning the whole group worked to "break" camp which consisted of tasks such as making a fire and breakfast, taking down the tents, packing all the packs, and loading the canoes. During the day the crew would stop together for bathroom breaks and lunch. Sometimes the crew would take a "floating lunch" which meant that they hooked the four
canoes together and ate while floating down river. In addition, when the crew had to portage all the packs and canoes through a swampy area or around dangerous rapids or falls the whole crew was also together. The first task when portaging was scouting for a trail. Many times since there was not a trail, the crew had to do a "bush crash." A "bush crash" entailed using a compass to scout and find the desired lake, flagging a trail to that lake, and clearing enough room to get the canoes and packs through which sometimes meant using an ax or saw on fallen trees. Portaging could be a simple fifteen minute unload and reload to climb around a beaver dam or it could be an all afternoon five and a half hour event which happened when the crew had a long bush crash through thick new growth in a previously burned area.

The crew also had to work together each night to set-up camp and cook supper. Since no one was allowed to even take their boots off until every job had been done, bathing and free time often occurred together or in two large shifts if some women were keeping the fire stoked.

Trip Log

As a supplement to the researcher's observations, she also had access to the trip log, as mentioned previously. The trip log is a daily account of the crew's events. Recorded by the G.O.D., the trip log highlighted the following information: time of rise, time of departure from camp, food ate for breakfast, canoe assignments, lunch time and location, food ate for lunch, departure time from lunch spot, rotating job assignment schedule, general weather information, miles traveled, number of portages, time arrived at camp, camp location, and food ate for supper. This information was followed by a more detailed written description of the day's events. Often this written description included an interpretation of how the G.O.D. felt participants handled an event or situation. In these descriptions the G.O.D. often discussed things the crew did well together, accomplished, or events that were difficult for the crew.
Retrospective Interview Technique (RIT)

The retrospective interview technique (RIT procedure) was used upon return from the trip to study turning points of participants' relationships with each other. The turning point graphs were given to the participants within a week and a half of returning to Minnesota along with the questionnaires.

Following Surra et al. (1988) the participants were asked to fill out graphs indicating turning points in their relationships with every other member of the group. (See appendix D for a sample of the turning point graphs given to research participants to fill out.) Therefore, this research study was able to assess the agreement among crew members regarding the turning points among each dyadic relationship.

Previous research has explained the importance of studying both partners in a friendship dyad. In Hays' 1984 study concerning friendship development and maintenance he suggests a multi-modal assessment of friendship. Such an assessment would help eliminate some of the bias present in research studies where like Hays', "...the subjects' self-reports of their relationships served as both the independent and dependent variables in the analyses performed.... Though difficult to achieve (and certainly more costly), participation by both members of a friend dyad would also allow for more intensive analyses of relationship dynamics...." (1984: 95).

Questionnaire

Upon return to Minnesota after the trip, participants were also given a questionnaire (see appendix E for a sample) gathering general post-trip thoughts and feelings. These questions were designed to help the research participants identify events they felt were important on the trip, to help the participants add detail about their relationships on the trail, and to help them identify their feelings about the trip for a future research study regarding emotions.

One series of questions asked: What relationships on the trip were special to you? Did any of these relationships help you not to miss people back home? Did they help "fill
the place" of relationships you had back at home? Another series of questions asked: Since you have been home, how much do you miss your crew-mates? Why or why not? Why do you feel that you miss certain people over others? What qualities about those people make you miss them? What support did you get from those relationships on the trail?

Besides using the questionnaire to fill in unanswered questions, the research participants were also asked to identify events they saw as turning points for the group. Therefore, this study did not only provide information as to the relationship development of dyads, but it also identified events that the young women as a whole found changed the relationship of the group.

**Summary**

This research study of relational development on a canoe trip utilizes three different methods of data collection. The researcher, a participant, focused her observations on collecting free response data. After the canoe trip all eleven participants were given RIT graphs and questionnaires to fill out. In addition, detailed participant and procedure information was provided in this chapter. A description of what events were available for observation on the canoe trip was also discussed.
Chapter IV: Results

Identifying Turning Points

Before analyzing turning points, the quality of turning point graphs was assessed and deficient graphs were eliminated from the pool. One of the two criteria had to be present for a graph to be eliminated. First, each graph needed to have a minimum of three turning points. Second, the graphs which were drawn in such a wavy pattern that the turning points became indeterminate were eliminated. With all ten young women and the co-guide completing turning point graphs, 121 graphs were possible. However, three graphs were missing from the data pool. Two of these graphs were relationships between a participant and the researcher, and the third graph was the relationship between a participant and the co-guide. All eleven graphs for one of the participants were eliminated. Nineteen other graphs from five other participants were eliminated at this point. The final count was 88 completed graphs, 30 eliminated, and 3 missing.

The researcher then went through the 88 usable graphs, compiled the descriptions of identified turning points, and derived inductively 17 categories with 15 supra-types and two subtypes. The researcher initially formulated these categories by discussing all of the turning point explanations with a communication graduate student at the University of Montana. From this discussion the researcher was able to clear up confusing definitions of the 17 turning point categories.

One problem that emerged from this discussion was how to handle explanations where the participant did not provide enough background information to an outside coder because the participant was writing with the researcher in mind. Based on this discussion the researcher defined words that would allow an outside coder to understand the situation better without divulging what category the researcher thought the explanation should fit. For example, one participant explained a turning point by saying: "We had a long 'if' where we overcame a ton of beaver dams." Many participants used words developed on the trip such as "if." An "if" is a small stream on a map that may or may not
be dried up. An "if" could mean that the crew would have to pull themselves through mucky water or portage.

Another problem was how to handle turning points that came about from an accumulation of two or more positive events. It was decided that when an explanation of a turning point was an accumulation of positive events the researcher and outside coder would look for what event carried more weight or what event caused another or enabled it to happen. In these circumstances the event carrying more weight would then be coded. If this could not be determined the coders would then code the first event mentioned in the turning point explanation.

Once these problems were addressed and the definitions of the 17 types, were made clearer, the researcher and another communication graduate student independently coded the 555 turning point explanations and reached acceptable inter-coder agreement (kappa = .78). Excluding 164 turning point explanations that were categorized as vague, unclear, or uncodable, reliability remained high (kappa = .75). To resolve differences the researcher and outside coder discussed disagreements and arrived at mutually agreed upon categories.

*Types of Turning Point Results*

The eleven research subjects identified a total of 555 turning point events. The highest individual average for a participant's graphs was 14.2 and the lowest was 3. The highest range of turning points was 3-17 events for a participant's graphs and the low was 3 events for all of another individual's graphs. Each day of the trip turning points were identified. On one day the participants reported a combined total of 68 turning points in their relationships, the high, and on another day only nine turning points were reported, the low. The mean identified turning points per day by the participants was 21.35.

Table one summarizes these finding by reporting the frequency (n = 555), the number of individuals who used each category, the percentage each of these categories was used and the valid percentage for each category, discounting uncodable graphs.
Table One: Frequency and Percentage of Turning Points

<table>
<thead>
<tr>
<th>Turning Point Categories</th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Individuals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self-Disclosure</td>
<td>66</td>
<td>11.9</td>
<td>16.7</td>
<td>8</td>
</tr>
<tr>
<td>Overcoming Difficulties</td>
<td>35</td>
<td>6.3</td>
<td>8.8</td>
<td>7</td>
</tr>
<tr>
<td>Shared Activities - Labor</td>
<td>16</td>
<td>2.9</td>
<td>4.0</td>
<td>5</td>
</tr>
<tr>
<td>Shared Activities - Fun</td>
<td>50</td>
<td>9.0</td>
<td>12.6</td>
<td>8</td>
</tr>
<tr>
<td>Pos. Attributes of Others</td>
<td>35</td>
<td>6.3</td>
<td>8.8</td>
<td>7</td>
</tr>
<tr>
<td>Received Comfort/Support</td>
<td>36</td>
<td>6.5</td>
<td>9.1</td>
<td>7</td>
</tr>
<tr>
<td>Tangible Assistance - Provided</td>
<td>4</td>
<td>.7</td>
<td>1.0</td>
<td>3</td>
</tr>
<tr>
<td>Tangible Assistance - Received</td>
<td>25</td>
<td>4.5</td>
<td>6.3</td>
<td>5</td>
</tr>
<tr>
<td>Environmental Factors (Pos.)</td>
<td>5</td>
<td>.9</td>
<td>1.3</td>
<td>1</td>
</tr>
<tr>
<td>Not Compatible</td>
<td>4</td>
<td>.7</td>
<td>1.0</td>
<td>4</td>
</tr>
<tr>
<td>Bad Circumstances</td>
<td>10</td>
<td>1.8</td>
<td>2.5</td>
<td>3</td>
</tr>
<tr>
<td>Neg. Attributes of Others</td>
<td>45</td>
<td>8.1</td>
<td>11.4</td>
<td>6</td>
</tr>
<tr>
<td>Conflict</td>
<td>16</td>
<td>2.9</td>
<td>4.0</td>
<td>6</td>
</tr>
<tr>
<td>Environmental Factors (Neg.)</td>
<td>32</td>
<td>5.8</td>
<td>8.1</td>
<td>3</td>
</tr>
<tr>
<td>Have Not Gotten to Know Other</td>
<td>12</td>
<td>2.2</td>
<td>3.0</td>
<td>6</td>
</tr>
<tr>
<td>Mixed Opinion (Good &amp; Bad)</td>
<td>5</td>
<td>.9</td>
<td>1.3</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>396</strong></td>
<td><strong>71.4</strong></td>
<td><strong>100</strong></td>
<td><strong>10</strong></td>
</tr>
<tr>
<td>Uncodable</td>
<td>159</td>
<td>28.6</td>
<td></td>
<td>10</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>555</strong></td>
<td><strong>100.0</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
369 turning point events identified that were codable were widely distributed over 16 categories. These categories were a mixture of positive (9), negative (5), and neutral (2) turning point types. No category was used over 12% of the time but, 10 of these 16 categories were used by at least half of the participants. The highest number of categories used by one individual was 14 and the lowest number of categories used by one individual was 2. Furthermore, out of the ten individuals the average number of categories used to account for all of their identified turning point events was 8.2 excluding category 15 "uncodable."

There were seven types of positive turning point events. The type of "Self-disclosure/Intimate Talk" was the most frequently used category, accounting for 16.7% of the codable responses (excluding category 15). Eight individuals out of the ten gave turning point explanations which fell into this category. Examples of turning point events falling under this category are: "We talked about what happened day 23 [got lost] and grew closer because of it," and "Because she told me secrets about her life and trusted me in keeping them."

A second positive turning point category was "Overcoming Difficulties Together/Accomplishments." This type refers to events where dyads or groups worked together and/or took pride in their accomplishments or both individuals in a dyad assisted each other. This category was used 8.8% of the time by seven individuals. A few examples of turning points coded into this category are: "Because we sank after some rapids but we held on together and worked it out," "We worked really hard together to save everything we could from the tip," and "Rupp's Rage"-- what can I say? It sucked, but the reward was sweet and made us all closer."

The category "Shared Activities" consists of two turning point subtypes which highlight different reasons for individuals to be spending time together engaged in an activity. The first subtype "Labor/Necessity," encompassed activities which had to be done to continue on the trip or survive in the outdoors that focus on individuals being able
to spend time together. Two examples of events that fell into this category were: "Because we made breakfast together," and "We scouted a trail together." The second subtype "Fun/Enjoyment" referred to activities which focused on the amusement of individuals while engaged in an activity. Two examples of events in this category were: "Did funny Mad Libs in the tent," and "Had fun pulling the canoes through muck."

Subtype one was used 4.0% of the time by five people and subtype two was used 12.6% of the time, making it the second largest category, by eight individuals.

The fourth turning point category is, "Positive Attributes of Others Revealed" which consists of the identification of positive physical, emotional, and/or verbal characteristics of other participants. This category accounts for 8.8% of the turning points and was used by seven people. Two turning point examples for this category were: "She was a hard worker and I respected that," and "She is a funny girl, a great singer, and she attempts to motivate other members."

The fifth category, "Received Support/Comfort," was defined as encompassing events where individuals received physical, emotional, and/or verbal support/comfort from each other. A total of seven people used this category which accounts for 9.1% of the turning points. Two examples of "Received Support/Comfort" turning points were: "She pushed me when I needed encouragement," and "She let me cry in her arms because I was so frustrated after 'Beaver Galaxy.'"

"Tangible Assistance" refers to physical help between individuals on the canoe trip and is the second category with subtypes. First, the subtype "Provided" encompassed events where an individual helped other participants or felt their help was needed by others on the trip was used only 1.0% of the time by three people. An example of this was: "I helped her on a portage." The second subtype, "Received," encompassed events where an individual received help from other participants and was used 6.3% of the time by five people. An example of this category was: "Because she helped me through a long portage."
The seventh and last positive supra-type category is "Influenced by Environmental Factors (Positively)" which is rather self-explanatory. This category referred to positive factors or situations resulting from the environment that influenced individuals and was used 1.3% of the time by one individual. An example was: "It was Layover Day—of course we all got along—we got to SLEEP!"

There were five categories that encompassed negative turning point events. The first negative category was "Not Compatible" which consisted of the declaration or explanation by an individual that they simply cannot get along with another participant(s). This category was used 1.0% of the time by four individuals. An example turning point event for this category was: "I couldn't handle her rudeness towards me--so I would tell her--we simply are not compatible."

Another negative category, "Bad Joint Experience Not Overcome/Bad Circumstances" referred to events between individuals which resulted negatively and/or were not resolved. This category accounts for 2.5% of the turning point events and was used by three individuals. An example turning point was: "Worst day of the trip. [She] blew up at me. I thought it was an immature way to handle the situation. Felt she didn't like me the rest of the trip. Felt humiliated, only time I wanted to go home," and "Basically, she would yell at me, we would not resolve it."

Similar to one of the positive categories, "Negative Attributes or Behaviors of Others Revealed" consisted of the identification of negative physical, emotional, and/or verbal characteristics of other participants. It was used 11.4% of the time making it the largest negative turning point category and the third largest category overall. This category was used by six people. A few examples of events coded under this category were: "Complained a lot about 'Shitty Lunch Lake', walking through beaver shit, and fiber glass pants--very negative," "I thought [she] was a bit too concerned with herself and her ideas--'my way or the highway attitude'," and "...I tended to get frustrated with her wimpyness and whining."
The category called "Conflict" captured events where individuals did not agree, could not compromise, or experienced friction/hostility. It accounted for 4.0% of the turning points and was used by six individuals. Two examples of "conflict" turning points events were: "Got mad at each other on a portage," and "We got in a spat-- I cracked a joke but she got pissed."

The second largest negative turning point category was "Influenced by Environmental Factors (Negatively)" which also paralleled one of the positive turning point categories. It referred to negative factors or situations resulting from the environment that influenced individuals. Surprisingly, unlike its positive counterpart, this category was large with three individuals using it 8.1% of the time. An example turning point coded in this category was: "I hate everyone cause it is cold-- like hypothermia cold and no one would get out to scout."

Two of the 15 types were neutral categories. The first one, "Have Not Gotten to Know Individual" accounted for the declaration or explanation by an individual that a turning point resulted from lack of mutual knowledge or understanding between individuals. This neutral category was used 3.0% of the time by six individuals. An example was: "I didn't really know [her] to well," and "We would get in a bunch of little fights-- we didn't know each other that well."

The second neutral category was "Mixed Opinion (Good & Bad)" which referred to explanations of turning points which could be seen as positive and at the same time negative. It was used 1.3% of the time by three participants. Along with this neutral category came another override coding rule which stated: "If the coders deem that the explanation seems more positive it will be placed in a positive supra-type or if it is deemed more negative it will be placed in a negative supra-type. This category will account only for explanations which are a balanced mix of positive and negative opinion." An example of a turning point for this category was: "Helped me put up a tarp-- but talks too much."
Finally, the last category was named "Uncodable" and it referred to miscellaneous experiences that did not happen with enough frequency to warrant the addition of another type. This type encompasses events which were vague, unclear, or where individuals provided no comment. It also includes non-turning point events where individuals descriptions showed that nothing changed in their relationships. This category was used by all ten individuals and accounted for 28.6% of the turning points after the re-coding was finished.

As mentioned, besides categorizing the 555 written turning point explanations, levels of closeness on a one (low/negative) to ten (high/positive) scale were also recorded. Following Baxter and Bullis (1986) "Change in commitment level was derived directly from respondent graphs: commitment at current turning point minus commitment at immediately prior turning point. Positive turning points were those with a commitment difference score greater than zero; negative turning points were those with difference scores less than zero" (p. 479). Table two summarizes the frequency, mean, std. deviation, minimum and maximum change for each category.

**Analyses of Turning Points**

Next, the researcher ran correlations pairing all of the graphs completed by one individual (unless graphs were discarded) to see if each person tended to identify turning points across several partners on the same days. Nine sets of correlations had too few turning point events identified over a twenty-six day period to give valid correlations. Only one of ten correlations (for the ten individuals who had valid turning point graphs) provided significant results. This individual had 15 significant correlations out of 45 (p = 0.01). The average correlation among all of that participants turning points was 0.64 with a high of 0.96 and a low of 0.20.

Similarly, the researcher also ran ten correlations pairing all of the participants' graphs regarding the same individual. By doing these correlations the researcher was hoping to see if participants identified the same days for turning points with each target
Table Two: Mean Change Among Turning Points

<table>
<thead>
<tr>
<th>Turning Point Categories</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Minimum</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self-Disclosure</td>
<td>66</td>
<td>1.47</td>
<td>1.89</td>
<td>-1</td>
<td>8</td>
</tr>
<tr>
<td>Overcoming Difficulties</td>
<td>35</td>
<td>2.14</td>
<td>2.24</td>
<td>0</td>
<td>9</td>
</tr>
<tr>
<td>Shared Activities - Labor</td>
<td>16</td>
<td>1.75</td>
<td>2.05</td>
<td>0</td>
<td>8</td>
</tr>
<tr>
<td>Shared Activities - Fun</td>
<td>50</td>
<td>1.46</td>
<td>1.46</td>
<td>0</td>
<td>6</td>
</tr>
<tr>
<td>Pos. Attributes of Others</td>
<td>35</td>
<td>1.26</td>
<td>1.50</td>
<td>0</td>
<td>7</td>
</tr>
<tr>
<td>Received Comfort/Support</td>
<td>36</td>
<td>1.47</td>
<td>1.61</td>
<td>0</td>
<td>6</td>
</tr>
<tr>
<td>Tangible Assistance - Provided</td>
<td>4</td>
<td>.50</td>
<td>1.29</td>
<td>-1</td>
<td>2</td>
</tr>
<tr>
<td>Tangible Assistance - Received</td>
<td>25</td>
<td>2.60</td>
<td>2.60</td>
<td>0</td>
<td>9</td>
</tr>
<tr>
<td>Environmental Factors (Pos.)</td>
<td>5</td>
<td>-.20</td>
<td>.45</td>
<td>-1</td>
<td>0</td>
</tr>
<tr>
<td>Not Compatible</td>
<td>4</td>
<td>-3.75</td>
<td>2.36</td>
<td>-7</td>
<td>-2</td>
</tr>
<tr>
<td>Bad Circumstances</td>
<td>10</td>
<td>-1.80</td>
<td>2.39</td>
<td>-6</td>
<td>1</td>
</tr>
<tr>
<td>Neg. Attributes of Others</td>
<td>45</td>
<td>-2.00</td>
<td>2.22</td>
<td>-9</td>
<td>4</td>
</tr>
<tr>
<td>Conflict</td>
<td>16</td>
<td>-1.13</td>
<td>2.09</td>
<td>-6</td>
<td>4</td>
</tr>
<tr>
<td>Environmental Factors (Neg.)</td>
<td>32</td>
<td>-3.22</td>
<td>3.59</td>
<td>-9</td>
<td>2</td>
</tr>
<tr>
<td>Have Not Gotten to Know Other</td>
<td>12</td>
<td>.25</td>
<td>.62</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>Mixed Opinion (Good &amp; Bad)</td>
<td>5</td>
<td>.00</td>
<td>1.41</td>
<td>-1</td>
<td>2</td>
</tr>
<tr>
<td>Total</td>
<td>396</td>
<td>.49</td>
<td>2.74</td>
<td>-9</td>
<td>9</td>
</tr>
</tbody>
</table>
individual. Once again the test were not valid because of the small number of turning point events identified in the twenty-six day period.

Agreement between X's graph of Y and Y's graph of X were compared using kappa (a measure of intercoder reliability the corrects for chance) and the uncertainty coefficient (gives us the percentage of X's turning points we could predict knowing Y's turning points and vice versa). Out of the 55 possible, 31 dyad pairs remained after the elimination of the unclear turning point graphs. There were 69 times out of 801 (31 dyads x 26 days) when both individuals in the dyad agreed that there was a turning point on a certain day of the trip. The lowest coincidence of turning points among a dyad was one time during the 26 day graph period and the highest was five times. The average coincidence of identification of turning points was 2.23 times out of 26 days. The lowest kappa was -0.35 and the highest was 0.62 with a mean of 0.14. The lowest uncertainty coefficient was 0.00 and the highest was 0.35 with a mean of 0.06.

By looking more closely at the first and last turning points of the research participants we can establish the mean change in turning points. The first turning points had a range of 1-10 and a mean of 4.5. The last turning points also had a range of 1-10 and a mean of 7.6. There were 9 graphs out of 88 (10.2%) that had no change when comparing the first and last turning points. Ten graphs had a negative change (decline in closeness). These ten graphs had a range of -1 through -5 and a mean of -2.7. The remaining 69 graphs out of 88 had a positive change or increase in closeness. These graphs had a range of 1-9 with a mean positive change of 4.39. The average change of all the graphs which were usable from one individual was +2.71 with a range of -2.33 to 5.00.

The researcher also looked at the last turning point reported by both individuals to see how many ended at the same level of reported closeness. Eight out of 31 times dyads reported the same ending level of closeness on a one to ten scale. Furthermore, 8 out of 31 times dyads were only off by one number and 6 out of 31 times the dyads only had a
difference of two in their ending numbers. These results show that 71% of the dyads reported and ending level of closeness within two numbers of each other. Of the remaining dyads, three reported closeness three numbers apart, two dyads were four numbers apart, one dyad was five apart, one dyad was six apart, one dyad was eight apart and one dyad was nine apart putting themselves at opposite ends of the closeness scale.

Looking at the last turning points reported in the 88 graphs we see that the majority ended at a high level of closeness. Starting at the high end of the closeness scale, 34 graphs reported an ending closeness of ten, ten reported a closeness of nine, ten reported a closeness of eight, nine reported a seven, nine reported a six, four reported a five, two reported a four, three reported a three, four reported a two, and three reported a one. Splitting the scale in half shows 72 of 88 graphs reported ending at a closeness level between six and ten.

Finally, general trajectories or slopes were found for the 88 graphs. Eleven graphs started high and ended high. (No graphs started high and ended low.) Seven graphs started low and ended low. Twenty-four graphs started low and ended high. Six graphs started around five (which will be called average) and ended average. Twenty graphs started high and ended average. Five graphs started average and ended low. Two graphs started high and ended average. Lastly, thirteen graphs started low and ended average. The three general trajectory categories containing the largest amount of graphs all slope upwards. These categories (low to high, average to high, and low to average) account for 55 of the 88 graphs or 63%.

**Group Turning Points**

"I think that events which changed or influence us would be the ones that were hardest to overcome... it took all of our strength and patience and mental strength to get through it all. It took all twelve of us to pass these obstacles." —LVI Participant
As mentioned previously, in the questionnaire the participants were asked: "In your opinion what events this summer have changed, affected, or influenced our crew? What were the "turning points" in how our crew developed? Why do you consider these events influential in how our crew developed?"

The more general responses explained, like the quote above, that it was the hard times that made the crew gel. Five young women out of eleven stated in their questionnaires that it was the difficult portages and long days which were turning points for the crew. As one young woman wrote, "I think it is impossible to not come together after going through things that crews go through like the hard and long portages and the times when we were lost. Those were the times when we needed to come together and be one." And by far the most common specific response which was stated by six of the eleven girls was "Rupp's Rage" which was the name, after the director of the program, the crew gave to the longest and most challenging portage of the trip.

The second and third most common group turning points mentioned by three young women each was the crew sleepover which happened before the trip and the crew stopping to take a bathroom break on the coldest day of the trip when spirits were low and bursting into song singing "The River" by Garth Brooks, which subsequently became the crew's song. The other events mentioned by more than one individual at twice each were three participants getting lost while scouting a trail, fighting, and one participant being added to the crew two weeks before departure to Canada. Three other group turning points had to do with pre-trip activities, one had to do with a decision made by the crew on the trail, one was about the ferry ride home, and one was about a layover day experience. The rest of the group turning points were difficult experiences/obstacles overcome such as the first day of the trip, dumping in rapids, a participant getting sick, overcoming beaver dams, canoeing on a very windy day, bad attitudes, and "Beaver Galaxy" (the crew name for the biggest beaver dam of the trip).
Overall, the group turning points were mostly positive with bad attitudes and fighting being the two that were negative events for the group. Besides pre-trip activities, the events mentioned by participants as turning points for the group very closely matched with turning points mentioned in their graphs. Looking past the obvious connection to shared activities, two major themes were once again environmental factors and overcoming obstacles.

Using a 26-day turning point graph the researcher was able to examine relationship changes that happened during the canoe trip. However, the effect of pre-trip activities upon individuals' relationships should not go unnoticed. Before the trip the crew met frequently to prepare their food and to learn valuable wilderness skills from the guides. On a few occasions the crew or members of the crew also met for social events. These events did have an impact on relationships. Yet, beyond a written record of reported group turning points it is hard to say how much pre-trip activities affected dyads' relationships. Therefore, the influence of pre-trip activities on individuals is based upon the fact participants listed pre-trip activities as turning points for the group.

We can assume individuals were using this time to get to know each other and to reduce uncertainty, and undocumented pre-trip activities were probably turning points for individuals as indicated by questionnaire comments which connected first turning points to pre-trip activities. On the other hand, it is interesting that self-disclosure played a large role in relationship development on the trip considering the participants had already met during pre-trip activities. This suggests, as will be discussed further, that individuals anticipated a future relationship with their crewmates.

Thus far the results have highlighted individual turning points, group turning points, and an explanation of the effects of pre-trip activities. The next two sections will focus on themes identified in the collection of data through questionnaires and observation.
Questionnaire Results

In the completed questionnaires participants provided additional detail about the trip and their relationships. Their comments included a discussion of specific experiences on the trail, feelings and emotions, and reflection. This section will highlight large themes that were relevant to the turning points identified by the participants. General explanations and statements illustrating these themes will be discussed. Minor themes and examples will be mentioned later in the discussion section illustrating connections to relationship development theories.

Many themes relating to the sharing of activities, surfaced from the questionnaire responses. First, there was a theme of joint ownership of memories/shared experiences that connected the crew, or as one young woman states, "the bonding we all will have for life now." Participants explained that the canoe trip was unique from other experiences. Friends and family members often did not understand stories about what life was like on the trail. The uniqueness of their memories helped the participants bond since they believed only others on the trip could grasp what they were feeling.

On example that illustrates this theme was: "I think that on trail was the time we were all probably closest, but those memories will never leave us and we have ones now to build on that." Another participant stated, "I feel we have really grown, and really gotten to know each other, I think we will keep our closeness and our closeness memories but not need to be with each other all the time to know the closeness is still there."

Beyond shared memories and shared experiences, the second and third questionnaire themes also connect to the turning point types of shared activities. Participants recognized the canoe trip as a challenge and many comments described feelings of pride/accomplishment in activities participants did on the canoe trip. Some examples of comments to illustrate the second theme, pride/accomplishment, are:
"It is great to know that I am part of a 'crew.' I love the term. I love saying it because I know that it is what we are. The definition of a crew is a body of people trained to work together for certain purposes. We worked together to get to our goal destinations so I am proud of the label 'the crew.'"

"I was sad that the trip was coming to an end, but I was left feeling proud of our accomplishments. It was so cool to know that we could have stayed out there for another month and it wouldn't phase us."

"On the last day of the trip I felt a great deal of pride in myself and in my crew members."

Participants also discussed the routine patterns of daily life established on the trip from who did what job to how a specific task was accomplished. People mentioned that they took pleasure in a simple life. Others mentioned that they were not looking forward to the problems and complexities of life at home. These comments made up the third theme routine/dependence. Some examples of this theme are:

"The thing about being home now is that I miss just knowing what needs to be done and doing it."

"I think the hardest thing to explain [to people who did not go on the trip] was how we all had our jobs, we all had a certain item to carry depending on our position in the canoe. And that's what made us a crew we all did a little bit of everything. Another thing that is hard to explain was portages, people don't get it."

"I never could explain how close my crew actually was to me. How much I relied on them for a month, and how much we helped each other out."

A theme of self-disclosure also arose from the questionnaire responses that directly connects to the largest turning point type. Many people would disclose different information to different people, as illustrated below:
"I definitely feel like we have all bonded together. I have never been able to share so much with everyone. My crew is like a second family to me.... I know that I can tell anything to these eleven girls and they can tell anything to me."

"[X] and my relationship was special to me because we understand each other so well, and we can tell each other anything."

"All of the relationships I made were so helpful to me. Some would talk about boyfriends, some about friends, some about siblings, and then parents."

Observation Results

Observation notes immediately point to the fact that individuals spent a lot of time together. When the daily jobs had been completed individuals would then spend time in activities such as braiding each other's hair, swimming, playing small travel games, or journaling together.

Not only did people enjoy having fun, relaxing and playing together, but people enjoyed working together. Many individuals were observed looking for ways to help each other out. When these individuals were done with their jobs, they often thought of things they could do for other people. The crew did a lot of favors for each other from giving someone their dessert portion to digging someone's sleeping bags and warm clothes out from the bottom of a pack. People did what was necessary and required to function in the wilderness, but many people also did little "extras".

On the other hand, when someone did not help other crewmates or slacked on their job requirement, others were quick to notice. Individuals who got into the tent first every night or always seemed to be first to bathe or change clothes were often the source of complaints. The crew established that a certain amount of help was expected, but anything above and beyond that help (favors) was well appreciated.
Besides watching how individuals interacted, the research conscientiously observed the role of environmental factors. The effects of the environmental factors mentioned previously will be discussed in the next chapter.

Summary

This chapter highlights the results collected from the 88 turning point graphs. It also explains the participants' answers when asked about turning points for the group. Themes and examples from both the questionnaires results and observation were also highlighted.
Chapter V: Discussion

A wide range of turning point types were identified including positive, negative, and neutral categories. These turning point types provide reasons for relationship changes on the trip. Overall, the average change in closeness indicates that dyads did become closer, but not always. The same result was found by looking at the last turning points identified. Most participants ended at a level of closeness above five. The three largest categories of general trajectories also indicate a positive change in closeness on the trip. The overall change in closeness was moderate and there was little evidence of agreement of when turning points occurred.

The next section will start by comparing the turning point types to previous turning point research. This will be followed by a more detailed discussion of the statistical results and a discussion of the five relationship development theories identified in the literature review in regards to the results. Common turning point types will be discussed in light of these theories. Questionnaire and observation themes will also be incorporated in order to fully understand what produced relationship change on the trip and how the theories can account for the changes.

Comparison to Previous Research

By looking at the positive turning points identified only three categories bear some resemblance to the research done by Baxter and Bullis (1986) on which this turning point study was modeled. Their research was based on romantic relationships, and 759 turning points were described with 26 categories. One category "Get-to-Know Time" has a subtype of "activity time" which overlaps with the category in this study of "shared activities." Furthermore, Baxter and Bullis have a category of "Quality Time," which has less focus on activity and more of a relational focus. This could slightly overlap with "Shared Comfort/Support" or "Self-Disclosure." The third similar category is "Sacrifice" which has two subtypes of "Crisis Help" and "Favors or Gifts." Noticeably, this is similar to "Shared Comfort/Support" and the theme of favors among participants. However,
many of Baxter and Bullis' (1986) turning point types are not similar to the results found in this study, in part because they emphasize the romantic nature of the relationships they studied. For example, the type "External Competition" has three subtypes which include, "New Rival," "Competing Demands," and "Old Rival." Another type is "Passion" which includes the subtypes of "First Sex," "First Kiss," "I Love You," and "Whirlwind Phenomenon." The type "Serious Commitment" highlights the subtypes "Living Together" and "Marital Plans." All of these types would be hard to apply to friendship relationships. These comparisons indicate that relationship development among friends cannot be lumped into other types of relationship development theories as has been done with some theories such as stage development.

In addition, close relationships are not always completely voluntary. Several turning points found in romantic relationships are based upon the fact that those relationships are voluntary. "External Competition," "Passion," "Exclusivity" (subtypes "Joint Exclusivity Decision," and "Dropping all Rivals"), and "Serious Commitment" emphasize choice (Baxter & Bullis, 1986). Participants can decided when to spend time together and how their relationship should intensify.

Friends do have decision making power about certain aspects of their relationships, but sometimes the friendship itself is not voluntary. Unless a participants was G.O.D., they did not have a choice as to who canoed together or slept in the same tent. The job rotation was also assigned by the co-guides, which meant a participant worked closely with the person ahead and behind them in the rotation for the duration of the trip.

Regardless of the type of relationship and age of participant, "Get to Know Time" seems important. It was one of the most common categories in this study. In a study to compare Baxter and Bullis' results with an older sample Bullis, Clark, and Sline (1992) found that the category "Get-To-Know-Time" was still used most frequently, as Baxter and Bullis reported. People remember some of the first activities they shared together and spending time together is important.
In adapting the Baxter and Bullis categories Bullis, Clark, and Sline dropped the category "Negative Psychic change" and added two categories, "Positive Evaluation" and "Negative Evaluation" (1992). These categories occurred when "respondents observed their partners' behaviors and drew conclusions regarding the suitability or desirability of the partner" (1992: 14). Similarly, in the current study when participants observed the behavior of another person and positively commented about this person it was categorized as "Positive Attributes of Others Revealed." When a participant observed the behavior of another and drew the conclusion that it was negative the turning point was coded as "Negative Attributes or Behaviors of Others Revealed." Although not making a judgment based upon potential for a romantic relationship, participants in this study were making a character judgment based largely on the desirable qualities of a crewmate. In both studies turning points were based upon the positive and negative evaluations of others and in both studies participants "...specified the basis of their evaluation." (1992:14).

Agreement on Turning Points

A low uncertainty coefficient and a low agreement of turning points on a specific day shows that individuals did not agree well on turning points in their relationships with each other. By looking at the three uncertainty coefficients over .20 possible reasons for these higher results were identified in examining the trip log and turning point explanations.

The highest uncertainty coefficient (.35) is the hardest to explain. This dyad did not seem to spend a lot of time together, but they both identified the same "stressful" days. This dyad ended six levels away in closeness, reporting an eight and a two for ending turning points.

The second highest uncertainty coefficient (.32) is between two young women who worked very closely with each other throughout the trip. They shared a personal pack together with one other member. This pack contained all of their clothing and toiletry items along with their sleeping bags and sandals. This dyad was also in the same
trio that spent a day together without the rest of the crew. Moreover, this dyad was next to each other in the job rotation. The individuals in this dyad agreed moderately well about turning points with each other and ended only one level apart in closeness, a nine and a ten.

The third highest uncertainty coefficient (.24) was also a dyad that worked closely with each other. They were next to each other in the job rotation, but both expressed that they were not especially close to each other. They ended two levels apart, an eight and a six.

This more detailed discussion of the highest uncertainty coefficients does not provide strong evidence that individuals' turning points were connected to each other. The first and third explanations suggest that individuals could identify the same events, producing the high uncertainty coefficient, but did not identify the same level of closeness because of these events. Moreover, other pairs experienced the same stressful events and worked closely together but did not agree on turning points.

Despite the lack of agreement of turning points, individuals did end the trip feeling close. Almost three-quarters of the dyads ended within two levels of closeness, proving that a general sense of closeness was present at the end of the trip. In fact, the vast majority of all graphs were over five on the one to ten closeness scale. And one reason more dyads did not end closer is very clear: One participant ended each of her graphs at ten. Her overwhelming feeling of accomplishment, pride in the group, and feeling "bonded" at the end of the trip overshadowed individual differences. Her graphs account for five of the nine instances where dyads did not end within two levels of closeness.

People ended feeling close, but the mean change in closeness was relatively small. This can also be explained. As noted, pre-trip activities influenced the crew and many individuals ranked others average to high at the beginning of the trip. For example, the bonding of the crew at a ceremony the night before they left (discussed further in the next section) could have played a role in the high first turning point numbers. This means the
low mean change in closeness only reflects the closeness the crew already felt before they left.

It is now clear that the crew became close despite a lack of turning point consistency between dyads. Therefore, it is important to return to relationship development theories in order to understand how they can account for the changes in closeness.

**Stage Theories of Relationship Development**

Each of the three models of relationship development explained in the literature review give us insight into the relationships of the participants. Knapp and Vangelisti’s stage model, Wood’s model emphasizing relational culture, and Levinger’s ABCDE model will be discussed as to how these theories fit the data collected here.

**Knapp and Vangelisti**

Knapp and Vangelisti’s (1992) stage model is useful for discussing the changes the group experienced together. In the initiating stage we can see the importance of pre-trip activities. In these first activities the group reduced their uncertainty about each other and developed background knowledge of the individuals assigned to their crew. This also happened on an individual level which can account for the reason first turning points started in the middle of the closeness scale.

At the experimenting stage the group and individuals could be seen gathering information and looking for similarities. This is where the turning point type "Not Compatible" comes into play. After spending a little time with everyone, participants very quickly figured out who would be a challenge to get along with. As is noted in the turning point explanations and observation, people quickly established with whom they were "Not Compatible."

The next stage, intensifying, is very easy to see among the group and individually. People started to create connections with each other. Already after a few weeks of pre-trip activities the group made plans to add the same beads to each of their chokers, and to
bring specific shirts on the trip, one color for each person, so their wardrobe would be a rainbow. Before the trip and together on the trail the group shared materials. Intensifying was also seen through the songs crewmates made up about each other and were then taught to the group. Words also developed (idiomatic expressions) that had specific meaning to the participants.

Integrating can be seen as the routine of the trip was established. Individuals seemed to "fuse" into a cohesive working unit. People knew who was good at certain jobs or activities and everyone fell into a role on the crew. The young women identified "crew songs." Language developed such as "the crew" or "the girls" that emphasized togetherness. The crew also created other unifying activities. For example, for many days members of the crew decided to speak in a British accent.

The bonding stage is very interesting because a public ritual took place the day before the girls started on the trail. The event, called the "Last Supper," gathered family and friends to bid farewell and good luck to the participants. This event included a Catholic mass and pot luck supper. At this bonding ritual the relational culture of the organization and crew was solidified by a speech from the director. In his speech the director highlighted the responsibility crewmates had to each other and to pulling their weight on the trip. He encouraged participants to think about others which climaxed in the distribution of the crew chokers (ceremonial necklaces). It is a custom that when the chokers are put on each participant makes a goal and then only removes the necklace when the goal has been accomplished. No one removes their chokers while on the trail, this would be considered an insult to the rest of the crew. In fact, six months after the trip only one individual had removed their choker. This public ritual was not optional. Therefore it is interesting to consider the ramifications of this forced experience.

The crew saw this event as exciting and special. Together the group seemed to accepted this "bonding" experience. The mentality of the group changed to "now we are a crew." Together the group was not only given their chokers, but were also given T-shirts
and all of their paddles were displayed as a crew. (The paddles are painted before the trip to emphasize care and maintenance.) The twelve individuals now "looked" like a crew which helped emphasize the bonding of the group. A wedding band signifies someone is married, and a choker signifies someone is part of a crew.

One of the purposes of the ceremony is to remind the participants how important it is for them to "bond." And immediately after this experience some individuals did already consider themselves "bonded" to other individuals. No matter what may happen to the crew they were connected to these people. Others took this ceremony as more of a warning of what can happen if the crew does not bond while on the trail. These people felt close to their crewmates but not "bonded" because the true experience started when the canoes hit water.

Looking at the crew as a whole, the group did not "come apart" (Knapp & Vangelisti, 1992). The questionnaire comments reinforced the theme of "bonding" even after the trip was over. At home when participants mentioned that they would not always see the other crew members they still explained that the experience would connect them permanently.

Knapp and Vangelisti's model is also useful for looking at the deterioration of a few dyadic relationships. Though the first three stages of coming apart may be easy to achieve on a canoe trip (differentiating, circumscribing, and stagnating) it is more difficult to apply Knapp and Vangelisti's stages of avoiding and terminating. For all practical purposes on the trip, a dyad's relationship may have been over, but they would still be required and expected to work closely with one another for long periods of time. In communication research the voluntary aspect of relationships is often overlooked or neglected. Classmates, coworkers, teammates, PTA members may all be friends, but their relationship would have to continue (at least temporarily) even if the friendship failed. In this study, the situation was more extreme. It was not a matter of avoiding an ex-friend at work, it was living closely with this "ex" the rest of the trip. As you can see, if a
relationship was deteriorating on the month long trip there were many benefits to working things out since the other person was unavoidable.

Wood

Since Wood's (1982) model follows Knapp and Vangelisti's so closely the stages of development and deterioration can be applied similarly. However, one difference in Wood's model is the concept of relational culture and the discussion of how relational culture affects communication at each stage of developing and disengaging relationships. By using Wood's definition of relational culture, it would be even harder for a dyad to terminate their relationship on the trip. Wood defined relational culture as, "...a privately transacted system of discourse and definition that coordinates attitudes, actions, and identities of partners in a relationship" (1982: 75). The relational culture of the canoe trip was that people needed to respect each other, help each other and support each other as emphasized at the "Last Supper." Minor fights, spats and unkind words were expected, but major conflict was looked down upon by the group-- as was terminating relationships.

Levinger

Overall, Levinger's (1980) model is very general and many results could be placed in the first three stages: A, attraction; B, building; and C, continuation. In the attraction stage Levinger investigated what determined one's liking for another. Here Levinger notes that, "... all else being equal, attraction to others is facilitated by the rewards they provide us" (1980: 524). The negotiation of costs and rewards played a role in the development of relationships on the canoe trip which will be explained further in the next section. Also, in the attraction stage Levinger discussed the role of another's proximity in relationship development. Proximity or more specifically, lack of privacy, was a factor that affected relationship development in this study. In the building stage Levinger examines studies that tracked changes in relationships. Here Levinger discusses a study which examined factors affecting interdependence. This is also similar to results in this study which explain the role of interdependence in relationships developed on the trip.
By looking at Levinger's explanations of attraction and building it would seem these are the stages where most relationships on the canoe trip would fit. However, there are some connections between turning point results and stage "C" or continuation of the relationship. In stage C of his ABCDE model Levinger addresses how an individual's characteristics that are present before they enter a dyad affect the relationship. In this study negative attributes (characteristics of the participants) were the turning point events that caused the second largest negative change in closeness. In the continuation of relationships on the trip individual's characteristics played a large role. Secondly, Levinger also warns us that at this stage there is a tendency for the partners to be concerned with fairness of their exchange/rewards. This is evident in the role "favors" played on the canoe trip, which will be discussed further in the next section on social exchange theories.

Stage development theories help us look at general group building patterns and individual relationship development. Knapp and Vangelisti's stages of coming together are easily applied to the development of relationships on the canoe trip, as is Wood's emphasis on relational culture. Furthermore, Levinger's continuation stage explains some of the results present in this study. What stage development theories cannot do is give us complete answers to the deterioration of individual relationships.

**Social Exchange Theories**

Social exchange theory can help us understand the importance of shared activities in the development of relationships on the canoe trip. First, take into consideration the following description about portaging: Every day participants faced portages. Sometimes participants only had to portage once or twice, other times participants faced over a half a dozen portages. Portaging could mean a simple hike over a few rocks around rapids or hours of scraping through dense forest. Portages could be clear paths between points A and B or difficult negotiations up steep inclines and down slippery cliffs. Each portage was unique. To get through these daily encounters participants had to work together from the initial scouting and flagging to reloading the canoes at the other end.
Interdependence

This description of portaging illustrates the concept of interdependence as explained by Baxter and Montgomery (1996). The four properties that represent a high degree of interdependence and fit this situation are: "frequent interactions over a long duration of time that encompasses a diverse range of activities in which the parties exert strong influence on one another (Baxter & Montgomery, 1996, p. 80).

The more participants worked together, the easier their tasks became and the more they relied on each other the next time. Portaging, cooking, collecting firewood, tent assembly, canoeing and scouting portage trails were all more easily accomplished when the job was shared. Interdependence developed as the participants refined systems of accomplishing these tasks together. As they became more efficient at working together they became more interdependent which was noted in questionnaire comments and observation. As one participant wrote when asked how she felt the last day of the trip, "It was overwhelming to [think about] see[ing] new faces... while at the same time, knowing that I would never be able to go back [to Canada] with these girls. It was scary to know that they wouldn't always be by my side. We really depended on each other."

Costs and Rewards

As noted in observation, participants worked together well. Two positive turning point types fit this observation, "Overcoming Difficulties" and "Shared Activities- labor." As participants shared resources and helped each other they maximized their rewards. Jobs were made easier and less time consuming when people helped others.

By looking at the mean change of closeness resulting from each turning point type we see this same theme. The two turning points that produced the largest positive change were "Overcoming difficulties" and "Received Tangible Assistance" which explains the benefit (reward) of working together and receiving help. And as Graziano and Musser (1982) explain people are more likely to be generous and cooperative when they anticipate their relationships will continue because this will maximize their outcomes. In this
situation participants did expect their relationships to continue as indicated in their questionnaire comments. Furthermore, it was also seen as a reward to "Receive Comfort/Support" from others as shown by the positive change in relationship closeness resulting from these events.

When people did not pull their weight or help others, crewmates noticed. For example, one crewmate wrote, "She is LAZY. It is like pulling teeth to get her to scout." This comment along with others containing the words selfish, annoying, slacker, ditzy, negative, frustrating etc. filled the turning point responses. As noted, the largest negative type was "Negative Attributes and Behaviors of Others Revealed." From these results, the turning point type and observation, we see that people were aware of "costs." Equity and fairness became important on the canoe trip. Participants expected everyone to do their fair share of the work. If someone was not pulling their weight or being selfish members of the crew reported negative turning points in their relationships.

*Shared Activities*

Yet at other times the sharing of activities or interdependence was not simply because it increased the rewards of individuals. Participants enjoyed working together (which may be a reward in its own right) as noted in the observation results. As intimacy increased so did, "...the number and variety of particularistic exchanges, in which one does good for the other at little cost and much pleasure to the self" (Burgess and Huston, 1979, p.175). In their discussion of "complementary activities where two partners take mutually beneficial complementary roles," they even mention paddling stern while another is paddling bow (p. 175).

The enjoyment of working together is also seen by the turning point category "Shared Activities- Fun." It is striking to see how important it was for the participants to spend time with others. While particularistic resources can account for some of the enjoyment of helping others, social exchange theories fall short here. Even taking into consideration altruism and particularistic resources they still cannot account for the
emphasis found in the data on play or having fun. The participants had a basic need to
play together. "Told funny stories," "Made up funny songs," "Had fun in the canoe...", were all comments that fit into the second largest category, "Shared Activities-Fun."

One would think that in this type of situation alone time would be a prized
commodity because of the lack of privacy and mutual dependence, but this was not the
case. After a long, physically exhausting day the majority of people did not retreat to
isolated corners of camp to read or rest. After the daily chores had been accomplished the
majority of free time was spent together in play (or self-disclosure). Individuals would
swim together, play cards together, braid each other's hair, laugh, sing and joke together.
Sometimes the crew as a whole would sit together and sing, put on a skit show, or read a
book out loud. Other times small groups or dyads made special desserts for the crew,
made up lewd verses to songs or watched the sunset. During most of the daylight hours,
people were together. This was also evident by questionnaire responses. When asked
what she missed now that she had been home for a week one participant responded, "I
[miss] having 'the crew' there all the time to be with...."

In looking at a description of communal relationships (social exchange) objects are
explained as difficult to describe in terms of relative value, there is no economic price tag
attached (Rollof 1981). Using this description one can ask, how valuable is having fun or
is fun another particularistic reward? The answers to these questions are unclear. Unlike
love or status, an individual cannot give fun. Fun is created between individuals and
therefore, the costs and rewards are hard to distinguish.

Favors

Favors were common and as noted in observation were need-based. I see you
need something, so I am willing to do you a favor. For example, I am willing to give up
an extra serving of potatoes when seconds is announced because I see you are especially
hungry. However, I am counting on the fact that the group will remember the favor I did
for you and reward me with seconds on another night when I am especially hungry or
reward me in another manner because my kindness was noted. The exchange of favors fits well with need-based giving as discussed by Clark and Waddell, (1985) and Clark and Mills (1979). Here participants may feel a desire to please another person even though the receipt of a benefit does not cause an obligation to reciprocate the same type of benefit (Clark & Waddell, 1985). Communal relationships are based upon a system of trust, gratitude, and personal obligation (Roloff, 1981). This helps explain why participants on the canoe trip were always exchanging favors. Favors were need-based and the result of goodwill.

Favors could range from giving someone food, giving someone a back rub, letting them borrow your extra pair of socks, to helping an individual finish their job. Even though all the jobs had to be accomplished at night and people would need to work together for most of the tasks, if X finished her job early, she would be doing Y a favor if she helped her instead of helping Z. Z would then have to work alone longer which often made the job more difficult. Therefore, all favors were not always altruistic and need-based. Some were strategic and that brings an element of exchange relationships into the picture. Strategic "favors" often carried with them an expectation of reciprocation of benefits.

It should be noted that while favors could be strategic, altruism was the norm. "Overcoming difficulties" and "received tangible assistance" were the turning points that had the highest positive mean changes. In other words, "we helped each other in a difficult situation," and "I received help from her" were the turning points that resulted in the most positive change in closeness.

Social exchange theories help us understand the importance of shared activities and favors. Specifically, they give us insight into turning point types such as "Overcoming Difficulties," "Shared Activities- Labor," and "Negative Attributes of Others Revealed" with a discussion of interdependence, costs and rewards, equity and fairness and

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communal and exchange relationships. However, social exchange theory cannot account for the importance of fun.

\textit{Self-Disclosure Theories}

Theories about self-disclosure describe it as a key element in the development of relationships (Cline & Musolf, 1985). The current research study supports this finding because all three sources of data, (the turning point analysis, observations, and questionnaire) point to self-disclosure as a common and important event among dyads. Participants shared stories for hours while canoeing. They talked about family events, first dates, sports, funny and embarrassing moments. It was noticeable that the participants were always talking. Moreover, participants who had "good" stories were recruited into specific canoes.

Why was there such a high amount of self-disclosure? From the responses to the questionnaire it can be seen that most individuals expected to interact with certain other individuals in the future. Cline & Musolf (1985) report the anticipated length of a relationship is a factor affecting self-disclosure, and Roloff and Berger (1982) suggest that if an individual thinks they will have to continue interacting with the person in the future they will gain knowledge about the person. The high level of self-disclosure may also be a result of the sex of the participants. As reported, females tended to report more disclosure to other females than to male partners (Cline & Musolf, 1985) and tend to disclose more overall (Altman & Taylor, 1973).

From questionnaire and observation results, boundary structures (Petronio, 2000) were also evident. The co-guides had a different level of self-disclosure with the participants than the participants had with each other or the co-guides had with each other. Along with sharing information came a negotiation of vulnerability and responsibility. As a rule, based upon the questionnaire comments and observations, self-disclosure happened among small groups of individuals or dyads. The entire group did not sit around and have personal discussions.
Self-disclosure theories fit closely with the research results found in this study. Both the theories and the current research point to self-disclosure as an important communicative event in building relationships.

**Uncertainty Reduction Theories**

Related closely to self-disclosure is uncertainty reduction. From observation and questionnaires what is noticeable here is another difference between disclosure among participants and the co-guides. It was noted on the trip that the co-guides sometimes felt information was a burden or a cost because of the responsibility that came with knowing the information, consistent with work by Afifi and Burgoon (1998). Given the age of the participants, knowledge about subject areas such as sex, alcohol, and drugs was burdensome and accounts for part of the boundary structures. With nine of the ten participants being seventeen years old at the time of the trip, smoking and drinking was illegal. Furthermore, these activities were looked down upon by the canoe trip organization, LVI. Conversations about sex also brought along heavy responsibility to discuss the effects of sexual activities. With eight of the ten participants going to a Catholic high school, where the director of the program works, the co-guides faced the responsibility of supporting the views of that institution.

Uncertainty reduction did play a role in the beginning of relationships as mentioned briefly in the section on stage development theories. Therefore, coupled with self-disclosure theory we can understand why "Self-Disclosure" was the largest turning point category. Participants did feel good about others when they disclosed information; however, often participants used their knowledge of others to try to account for their crewmates' behaviors. In the turning point explanations and questionnaire comments it can be seen that participants gave rationalizations for the actions of others. For example, X only snapped at me because she was worried about us getting behind on the route. This explanation component (Berger & Calabrese, 1975) of uncertainty reduction continued throughout the trip.
Berger and Bradac (1982) identify reasons for uncertainty reduction which fit with this phenomenon. Individuals on the trip expected to have future interactions with others, therefore it was important that they understood and could account for the behavior of others. Another reason for the continued effort to explain others behavior is maintenance of rewards and costs (Berger & Bradac 1982). As Berger and Bradac explain, "...when persons become concerned with the rewards and costs that another person can mediate for them, they will become more concerned about reducing their uncertainties about the other person" (1982: 17). This would make sense considering the previous discussion of how participants expected everyone to do their share of the work and are interdependent.

Uncertainty reduction may also have led individuals to the discovery that they were simply not compatible with others. It would only make sense that as a dyad learned more about each other the two individuals would realize they did not click. What the data collected in this study does not tell us is how much individuals knew about each other before a person decided they were incompatible with another individual. Yet, the turning point explanations do show that often one individual decided they were not compatible with another and treated the other individual poorly. This would then lead to the remaining individual reaching the same conclusion.

Uncertainty reduction theories fit with self-disclosure theories to help explain the importance of disclosure on the trip. Furthermore, the explanation of behaviors of others fits with the importance of costs and rewards and the continuation of a relationship. Yet, uncertainty reduction theory and a lack of data cannot help us better understand the times individuals were "simply not compatible."

*Dialectical Theories*

Dialectical theories help us understand some of the tensions that arose on the canoe trip. Stating that you are not compatible with another individual, not overcoming a bad experience, or saying that someone is very selfish may be events which are part of the ebb and flow of positive and negative situations negotiating a dialectic. Dialectical theory
helps us understand tensions participants faced and fits well with many of the negative turning point types.

Rawlins (1992) discusses interactional dialectics in friendships. One of these dialectics is the freedom to be independent versus the freedom to be dependent. Largely, there was no choice on the canoe trip to be independent. The amount of dependency, though shown to be positive, did put strain on some relationships resulting in negative comments or situations. In fact, observations showed that when dyads worked together little talk indicated a rise in frustration levels. As a result of not being able to change or leave the situation individuals sometimes became upset which resulted in increased silence.

A second dialectic that Rawlins (1992) discusses is the dialectic among friends of the ideal versus the real. As explained in the literature review, "...people are socialized into normative expectations regarding certain ideal conceptions and practices of friendship" (p. 11). On a canoe trip these normative expectations changed. The intense environmental pressures placed upon a participant caused people to look for or expect different things in their friendships. Before the trip, characteristics that made individuals appealing friends such as trendiness or style, silliness and even popularity did not matter as much or at all on the trail. Once participants were on the trail relationships changed because expectations changed. Individuals now sought characteristics such as motivation, endurance, and physical strength in their friendships.

A third dialectical tension is expressiveness versus protectiveness (Rawlins, 1992) came into play for the co-guides. This interactional dialectic manifested itself as stress about the responsibility of how much information to tell the participants. When concerned about anything from the weather, to the route, to an injury, the co-guides struggled with negotiating how much information they should tell the participants without causing them to worry.

Stage development, social exchange, self-disclosure, uncertainty reduction, and dialectical theories overlap in providing us with an understanding of what changed
relationships on this canoe trip. Each of these theories gave us insight into the phenomenons that were noticed in the data. However, in other ways these theories did not completely account for the data collected. This next section highlights a major theme that none of the theories could explain adequately—environmental factors. First, the six unique environmental factors identified in this study will be discussed as to their role in relationship changes. Second, the frequent turning point type, "Negative Environmental Factors" will be examined.

Environmental Factors

Environmental factors greatly contributed to the prevalence of the largest turning point type, self-disclosure. Isolation carries many negative effects, but it allowed the participants more freedom to express themselves. One theme that was noticed in the questionnaires and observation was shedding layers, just like the onion metaphor created by Altman and Taylor (1973). When everyone started the trip they attached a purple bead to their chokers (ceremonial necklace worn by the crew). On the trail the beads started to chip and peel until they all turned black. It is interesting that this process happened at different rates for each of the beads. It is a very concrete metaphor for what was happening to the participants and was often noted by the participants.

Isolation and lack of privacy also led to another type of shedding layers—clothing. As the trip progressed individuals who hated gym class became comfortable bathing in front of eleven other people. When asked what made it hard to return to Minnesota, one individual states, "The fact that we could all go around not caring what we looked like, nothing was fake...." Other comments that emphasize the shedding layers theme follow: "I think our crew grew very close once we got to Canada. During our time there all guards were down and we were able to share secrets and completely be ourselves for an entire month." Another participant explained the following when asked what she missed most about her time in Canada: "I miss... being naked, sharing stories, hearing
stories/problems, finding your own way and working together as a crew. I miss how everyone was their own true self up there.

Mutual dependence, another environmental factor, fits with the theme of shared activities. Individuals did have to work together, but soon learned of the rewards this brought the group. Mutual dependence played an important role in bonding individuals to each other and to the group. Relationships progressed as people felt needed and discovered their places among the crew. One participant states it best when she wrote, "I miss knowing how much you're needed because you're not told that very often in the real world. And for 26 days, that was our real world." The environmental factor lack of resources also fits with the importance of shared activities. Once again, working well together because of limited supplies brought greater rewards to the group.

Authority was the environmental factor that played the least significant role in relationship changes. G.O.D. (Guide Of the Day) was a rotating job position which made this environmental factor hard to monitor. Individuals who were not very successful G.O.D.s were ridiculed, but overall the turning point graphs, questionnaire comments, and observation did not point to the strong influence of authority in relationship changes. Participants also did not comment upon the authority of the co-guides perhaps because the researcher was a co-guide.

The last previously identified environmental factor was novelty. This factor fits with the theme of routine/dependence. As explained, individuals liked the routine established on the trip and the "novel" experiences they encountered were exciting, but often considered stressful. When asked how she felt on the last day of the trip one participant wrote, "I felt a bit of relief also... no more 'Rupp Rages' to worry about." Now that she was home, another participant wrote, "...I don't miss the constant feeling of worry [in] my stomach." This stress caused by new experiences provides a great segue into a discussion of the largest negative turning point type, environmental factors.
In the questionnaire responses people wrote very positive paragraphs about how they felt about the trip and the crew. Yet on a rainy day while standing in the middle of a swampy portage trail, waiting for the participant behind you to catch up so she can help pull your canoe through the trees grown closely together while you are getting bitten by every flying thing imaginable-- people did not always feel close to each other. Through questionnaire responses, observation, and turning point data one thing was evident. If the weather was poor so were some people's moods. What is surprising here is not that the environment affected the developing relationships, but how much it did. On average the turning points resulting from negative environmental factors changed an individual's closeness by the second largest amount. For example, this would be moving the closeness of a relationship from a strong 6 to a 3 because the day was windy and there were large whitecaps on the lake causing stress between the relationship of the person in bow and in stern. Furthermore, from a more detailed examination of the researcher's observation notes and the questionnaire responses it was noticed that a lot of the negative physical attributes of others were accentuated by environmental factors. "She is a weak bow," was said on a day when many people commented about the windy weather.

It is also interesting to note that the positive counterpart of the negative environmental factor category was very small. Most of these turning points were coded under other categories. The beautiful environment and weather did not cause a positive turning point but instead the activity individuals did together (which was possible because of the environment) was noted or an attribute was noted, "she was fun and motivated" (which also may have resulted because the weather made it easy to paddle).

Stage development, social exchange, self-disclosure, and uncertainty reduction fail to account for outside factors causing a strong change in a relationship. The dialectic of novelty versus predictability is the closest theory to explain this result. However, novelty is only one of the six environmental factors identified here as potentially affecting relationship change and this number does not count other factors like the weather.
Other Findings

Beyond a look into theories of relational development and an explanation of relationship change this study collected data on other aspects of interpersonal communication. Specifically, many of the turning point graphs and questionnaire comments discussed emotion. In her notes, the researcher also described the emotions of participants during the canoe trip. Furthermore, the presence of idiomatic expressions was very noticeable in participants' written descriptions of turning point events and questionnaire comments and in observation.

Emotions

Emotions played a large role in communication on the canoe trip. These emotions were not focused on directly, but their effects are worth noting. Just as the canoe trip provided for a good place to study relationship development it provided a good environment in which to study emotions.

A study reported that emotional contagion occurs more commonly among negative emotions such as anxiety and aggression and less frequently among sadness and fatigue (Sullins, 1991). In this study the results were similar. The environmental factor of novelty produced anxiety and fear; and in comparison to times when participants were excited or happy about a new situation, fear, stress, and anxiety were more easily transmitted to the rest of the crew. In fact, the dialectical tension faced by the co-guides of expressiveness versus protectiveness arose from their fear of emotional contagion of negative emotions. When one participant started to worry about a situation others would worry too.

This result also fits with the research of Gump and Kulik who report, "According to the emotional similarity hypothesis, emotional comparison needs should be greater under high than low threat..." (1997: 306). The environmental factor of novelty led to high threat situations. Everyday there was the possibility of storms, rapids, a canoe tipping on a rough lake, injury and animal encounters. Because participants were under
high threat, negative emotional contagion was a real danger and a source of concern for the co-guides.

**Idiomatic Expressions**

On the trip the crew adopted unique words and phrases that had meaning to the members of the crew, but not to outsiders. While idiomatic expressions are a part of Knapp and Vangelisti's stage model they are more important than stage development theories suggest. Besides nicknames and teasing, the idiomatic expressions developed on the crew served many functions. They were descriptive words, names for difficult places/events, and acronyms that represented the longer explanation of a situation.

Some of these words were already mentioned in this study such as "if," and "Rupp's Rage." Other words were "garbage," "Beaver Galaxy," "EMP" and "EMS." Each one of these six words/phrases mentioned here was used on a regular basis by members of the crew. Words like "if" and "garbage" were descriptive words that had to do with functioning on the canoe trip. An "if" was a stream on a map that might not be there and "garbage" was the middle position in the canoe. The person sitting in "garbage" would be watching the maps and not paddling. Other words like "Rupp's Rage" and "Beaver Galaxy" were used to talk about places/events on the trip. Both of these words refer to days that were especially difficult for the crew. The words EMP and EMS were used as a condensed way of explaining something and requesting action. The EM in EMP and EMS stands for EMergency. The P and S refer to what is commonly called #1 and #2 when going to the bathroom. When canoeing these could be used to single to your crewmates that you needed to go to shore fast to relieve yourself or because you were feeling sick.

Bell, Buerkel-Rothfuss, and Gore (1987) studied idiomatic expressions among romantic relationships. They examined how the number of expressions that served different functions correlated with love, commitment, and closeness. Many of their findings are similar to the use of idiomatic expressions on the trip. As they explain, idioms
unify people and are therefore used in public. The words developed on this canoe trip were symbols that the crew had bonded and because of the functions of the words they were almost exclusively used in public (when the group was traveling together).

Bell and Healey (1992) built on the work of Bell, Buerkel-Rothfuss, and Gore and studied the use of idioms among friends. Once again this study emphasized that idioms among friends are rarely used in a private context. Similar to previous research, they found that idiomatic expressions are used among friendship groups rather than dyads. On the canoe trip idioms were seen to belong to the crew. If a participant invented a word, the crew was using it by the end of the day. Finally, beyond similarities in teasing and nickname idioms two categories developed in Bell and Healey's research were also found here. Bell and Healey (1992) developed a category of code names for activities and a category for requests made via idioms. These two categories closely parallel the use of words developed on the canoe trip that helped with the functioning of activities and the words that explained and requested action.

Summary

This section brought together the data collected from turning point graphs, questionnaires and observation. First, the turning point results were compared to the study upon which it was based. This discussion highlights the similarities and differences of turning points based upon romantic relationships and friendship. Second, the statistical tests are examined more closely which shows us that participants did experience relationship change and got closer on the canoe trip. Next, the five theories of relationship development where re-examined in order to discuss their role in the relationship changes of participants which is summed up in the next paragraph. Finally, this section highlighted data on other aspects of interpersonal communication regarding emotion and idiomatic expressions.

First, stage theories helped us understand the coming together of the group and individuals. However, in part the relational culture of the group made it hard to study
individual cases of relationship dissolution and overall the relationship of the entire group did not dissolve. Second, self-disclosure theory backed up the importance of the turning point type "Self-disclosure" and evidence in this study shows that disclosure may have been affected by the participants' sex and isolation. Third, social exchange theory (interdependence, equity and fairness, rewards and costs, and communal and exchange relationships) accounted for many of the turning point types. Fourth, uncertainty reduction theory connected with participants' explanations of others' behaviors and the importance of self-disclosure. Finally, dialectical theory pointed out some specific tensions experienced by members of the group. What did not fit into these theories also played an important role in relationship development. The role of fun or play was not adequately explained in these theories nor was the influence of environmental factors.
Chapter VI: Conclusion

This study of relationship development on a month long canoe trip has provided us a glimpse into the lives of eleven individuals. The "pressure cooker" experience did lead to an overall increase in closeness of the participants. The turning points identified were diverse, and questionnaire comments and observation complemented these results. Triangulation was very important in enabling the researcher to gather rich data from this environment. Finally, five relationship development theories helped shed light on the activities/events that produced relationship change. From the data and these theories five main results arose that provide understanding into relationship change on the canoe trip.

The Role of Self-Disclosure

Self-disclosure, direct communication, played a large role in relationship development among the participants as noted in the turning point graphs, questionnaire responses, and observation. On the trip self-disclosure had many functions. It was used to get to know someone, reduce uncertainty, to increase closeness, to bond two people together and to maintain closeness.

The Behavior and Language of Social Exchange

Social exchange played a slightly larger role in relationship changes on the trip. This was evident through many of the turning point types that developed such as those emphasizing overcoming difficulties, sharing activities, and receiving and providing tangible assistance. The role of exchange principles is even larger when considering they were reflected differently in behavior and language versus self-report.

On the trail, behaviors and routines developed that emphasized fairness. Who canoed in bow or stern and who portaged different equipment was monitored among group members. Likewise, food, dessert, water, and candy was closely monitored to ensure a fair distribution of these goods. Different procedures were established by members of the group to ensure that everyone received an equal portion. For example, often after serving the food the cook or assistant cook would allow the crew to look at all
the plates to double check that the servings were equal. Also, it became established that no one could have a second helping of food without checking with the rest of the crew.

Many times complaints from crew members on the trail were about fairness. A common theme in observations was the word selfish. Many participants were called selfish when it was noted that they always got into the tent first at night or always seemed to bathe first. Also, subtle differences in who participated in what activities were noted by participants. People noticed who helped with the mundane tasks like collecting fire wood and finding rocks to stake down the tents (because much of the land is rocky actual tent stakes were not used on the trip) versus who started other less important jobs like hanging clothes lines and helping the cooks make dessert while they finished the supper.

*The Importance of Play*

Beyond the roles of self-disclosure and social exchange principles is the unexplained role of "play," indirect communication. "Play" played a huge role in relationship development on the canoe trip. In comparison to self-disclosure, play performed the same functions. Play was used to initiate contact between two people and helped them get to know each other such as during pre-trip activities like the crew sleepover and practicing dumping in canoes on the Mississippi River. Play also developed as a type of shared intimacy. It helped bond two individuals together through activities like playing in rapids and singing and dancing. Finally, play helped maintain the closeness of two individuals. After a conflict or fight "play" could help two individuals make peace with each other. Having fun together lightened tense situations.

It is even more amazing that play functioned similarly to self-disclosure when taking into consideration the factors of mutual dependence and lack of privacy/close proximity. In this situation participants spent almost their entire day with the other members of their crew and daily activities require immense teamwork. Despite these factors individuals still wanted to spend time with each other playing. From developing idiomatic expressions and songs to creating games participants did not seem to be affected
by their lack of privacy or dependence. In fact, people who had a hard time working with each other still remained close through play.

Play is hard to dissect in terms of the exchange of rewards and costs. Planalp (2000) suggests looking at social exchange theory with emotion or feeling as the currency. By looking at social exchange theory from this perspective one participant does not have to lose in order for the other to gain. For example, Planalp states, "For people who like to garden together, money does grow on trees; for people who enjoy sharing a meal, there really is such a thing as a free lunch" (Planalp, 2000, p. 12). This perspective may account for the importance of play on the canoe trip. Play allowed both parties to receive "rewards."

On the canoe trip individuals did not have cell phones, TV, movies, soccer practice, church, music lessons etc. After all of these distractions were stripped away, this situation allowed us to look at what is basic to relationship development. The results are self-disclosure, social exchange principles (i.e. fairness), and play.

A Different Look at Stages

Turning point events, observations, and questionnaire comments were shown to "fit" into stage development theories. Yet, the results in this study lead us to conceptualize stage theories in a slightly different form. Instead of stages as starting and stopping points, behaviors or changes occurred but did not seem to stop. In this study stages can be better described as starting points for behaviors. This is easily illustrated by looking at indicators of stage talk. Early on the trip people talked to gather information or to "get to know" each other. Then individuals started to develop idiomatic expressions followed by "we" talk. However, even when individuals "fused" and developed "we" talk they never discontinued gathering information about another individual nor did they stop using idiomatic expressions.

Furthermore, in this study environmental factors triggered changes in relationship development and accelerated movement through stages. For example, on day five of the
trip the participants encountered their first taste of rough waters on a large lake they were canoeing across. This event made the girls work together to overcome the stressful situation and people felt closer because of it. If the day had been similar to the first four days participants' and the groups' level of closeness and disclosure would not have increased so dramatically. The environmental factor of wind accelerated the participants' relationship development.

Finally, this study showed that stages of relationship development were not clear cut. The group in general did follow traditional stage theories and so did cohesive dyads, but many individuals "were on their own." Individual differences made the stages messy and hard to apply across the board. The temperament of different individuals such as "slow to warm up" versus sociable and vivacious, drastically affected how individuals handled the same situations. On the trip two participants got into a very heated argument. It was amazing that after this event one individual was crushed and wanted to go home and the other, though annoyed, shrugged it off as "no big deal". The first individual felt as though their relationship started to deteriorate because of the fight and the second individual thought they had already bonded and their relationship could withstand the fight. This study examined how both individuals in a dyad viewed a situation. The data shows that even though a dyad may have experienced the exact same event the participants may not have seen the event similarly and thus the individuals (the uncohesive dyad) reported being at different stages.

*The "Understated" Effects of the Environment*

Six environmental factors specific to this research study were identified as to there role in relationship development. Beyond these six factors (isolation, lack of privacy/close proximity, mutual dependence, authority, and novelty) the role of the environment greatly influenced relationship development. Yet, like the role of fairness the reason for the understatement of the environment's effects lies within the difference between what the participants noticed and recorded and what was observed by the researcher.
On the trip one participant reported positive effects of the environment and three reported negative effects of the environment. However, a more detailed look into the turning point explanations and questionnaire comments shows that environmental factors played a much larger role in relationship change. Many of the turning points identified where people worked together or overcame difficulties referred to negative environmental factors as creating these situations. Thus, negative environmental factors played a larger role than reported because they accelerated relationships by providing opportunities for the participants to overcome obstacles.

Positive environmental factors also influenced relationship change more than the written data from this study indicates. People "bonded" when days were "easy." More specifically, individuals had more time to spend talking and playing when the weather was sunny, the lakes were calm, and the rivers were not divided every mile by beaver dams. The environmental factors that led to "easy" days were taken for granted, but their influence can be seen through observation which serves as background knowledge for the written data.

*Implications for Communication Research*

This study embraced the effects of the environment. It took into account how environmental factors helped change relationships between participants. Without being open to the influence of the environment studies will not paint a true picture of how relationships change. Even though a month long canoe trip is an extreme situation future research cannot downplay the significance of environmental factors.

In this research study turning points were collected through the Retrospective Interview Technique, the participants filled out questionnaires, and the researcher gathered data through participant observation. Triangulation added richness to the results collected in this study. If the researcher would have only relied on participant observation many of the views and opinions of the participants would have been lost. The researcher would
have had to rely solely on her insight into the culture to provide the best explanation she could for a situation.

By coupling questionnaires with observation the researcher was able to read the opinions and attitudes of the participants. For example, without using these two methods of data collection together the researcher would have overlooked the importance of favors. Furthermore, the researcher now had comments from the participants to couple with situations and events she observed. The researcher observed the amount of time participants spent with each other, but the questionnaire comments provided participants' insight into why time together was important. Without these comments the researcher would have overlooked the importance participants saw in the routine of the trip. Using either technique alone would have resulted in less comprehensive results.

Likewise, by adding the collection of turning points to the observation and questionnaire comments the researcher was once again able to support information she collected with examples and explanations from the graphs. The turning point graphs served as a check on the accuracy of her observations. For example, the prevalence of the turning point type "Self-disclosure" gave weight to her observations and questionnaire responses. Also, the turning point types regarding environmental factors gave the needed evidence to discuss the importance of environmental factors. Without these turning point categories, results based upon observations and questionnaires would have been weaker. By using three methods, the results in this study clearly show the opinions of the participants and not the researcher.

If this study were repeated or other similar studies were conducted, it is strongly suggested that data should be collected using more than one method. This will allow for a more complete picture of relationship change-- one that is a healthy balance of the critical eye of the researcher and the reflective responses of the participants.
Limitations of the Research

With all research studies, it is important to examine how different types of limitations may have affected the results. In this research study there are some important limitations to be aware of with regards to the setting and the methodology. Furthermore, four limitations have been identified that directly affected the results.

First, because of the environmental factors that led to such a unique and intense setting, it is important to take into consideration the level of stress faced by the researcher, her co-guide, and the participants. Environmental factors such as isolation, lack of privacy, and mutual dependence, can all lead to higher levels of stress than what a participant may normally encounter.

It is also important to realize that even though the researcher spent over 600 hours with these young women on the trail, there were times when she missed important events in the relationship development of a dyad. It is important to remember that the researcher was not present for all events. For example, a dyad that had not been getting along may have worked through some of their differences when they were assigned to the same canoe and tent for a day. However, if the researcher was in a different canoe and tent she may have missed their interaction and conversation.

Another limitation of the methodology is the delay in the return of all of the RIT graphs. Even though the researcher did receive a 100% completion rate, some of the graphs were not returned to her until four or five months after the canoe trip.

Finally, another limitation of the methodology is that general principles of relationship development were arrived at inductively. Some problems with such a method is that it may be hard for the researcher to know what to record. Similarly, the researcher cannot record nor be present for every important event regardless of how much time she may spend with the participants. And there is also a greater chance that the researcher may find what she is looking for using an inductive method.
There were also four limitations that directly affected the results of this study. First, the influence of unsystematic reporting can be seen on the turning point results. Second, the role of the researcher caused a problem with the way many results were reported. Third, individuals punctuated events differently which affected the correlation of events between dyads. Fourth, pre-trip activities, while affecting the turning point results, were not adequately studied.

Some individuals did not put as much detail and thought into their graphs as others. The lack of effort put into turning point graphs by some individuals, bad reporting, affected the results of this study as seen by the large number of "uncodable" turning point events. Furthermore, 30 graphs were discarded largely because of a lack of identified turning points.

A second possible reason for the lack of reported turning points is the different perspectives of others. One person may see an event or situation as common to friendship and therefore not report it as a turning point. To this individual only really "big" events may be considered turning points. To others, common friendship activities such as self-disclosure and favors are what change a relationship.

One solution to the problem of sparse turning points would be to have a larger sample. However, in this situation the only people available were the eleven other members of the crew and everyone did complete the graphs and questionnaire given to them. Another solution would have been to implement a different method of data collection. Specifically, the researcher could have tried to catch more turning points at the time they were happening. For example, a short survey could have been handed out on a daily basis. However, this type of method would have intruded more upon the participants. Given their age and the status of the researcher as one of the guides, it was very important that the participants felt comfortable with the research/co-guide. A more intrusive data collection method may not be advisable if it jeopardized the fragile balance of researcher/co-guide. Individuals need to feel comfortable seeking out the co-guide for
help without worrying about sharing information with her because of her role as researcher.

On the other hand, the dual-role of the researcher did affect the data collected. Specifically, many participants wrote their turning point explanations and questionnaire responses with the researcher in mind. This made it difficult for the outside coder to code the turning points. As mentioned, certain words were explained to the outside coder. However, beyond idiomatic expressions, some turning points and a lot of the questionnaire responses contained sarcasm. Beyond the difficulty this produced with coding the turning points, it can also be seen as very positive. Individual personalities were seen in the questionnaire responses and the slang, crass comments, and inside jokes all point to the honesty of what was written. The participants seemed to be comfortable with the researcher's dual role.

Extremely low correlations between individuals reporting turning point events on the same day occurred because participants noted different starting and stopping times for the same events. One individual may report overcoming a difficulty on day five when another person might have seen that entire day as difficult and reported overcoming it on day six. The crew was also at certain locations for more than one day or traveled on the same lake or river for parts of multiple days. This also caused a problem with the punctuation of events. One individual may have reported having fun on a layover on day 14 and another individual writes a similar comment on day 15. Both individuals are correct in their statements because the crew did have a layover that stretched over multiple days as they re-supplied their food in the middle of the trip.

Little is know about what pre-trip activities affected individuals' relationships, but we do know they affected the placement of first turning points on the closeness scale. A simple solution to this problem would be to start turning point graphs at the point two individuals meet. However, by increasing a graph's time span a researcher may lose turning point events because of memory problems. In addition to the effect of pre-trip-
activities another reason for the high level of closeness reported in first turning points may have been that some respondents judged four or five on a ten point closeness scale as neutral, whereas others looked at the same one through ten scale and believed that everyone starts at zero.

*Future Research Possibilities*

"I wish I would have done some things differently like stay out and look at the stars or get up early one morning to watch the sunrise." – LVI Participant

The main goal of this study was to examine relationship change. More specifically other goals were to examine research and theory that is usually applied to romantic relationships, to test relationships in situ, to take into account environmental factors, to collect retrospective information immediately after the trip, and to gather data from dyads taking into consideration network effects.

The main goal of this study was accomplished. However, I would suggest repeating this study with the main focus on emotion, emotional labor, emotional contagion and/or idiomatic expressions. For the same reasons this study provided for an interesting place to study relationship development, it would be interesting to devote more attention to the study of emotions and communication and language development.

If this study were repeated results may be different if the population were male or older. Though referred to as young women it is important to remember that eight participants were seventeen, two participants were eighteen, and the co-guide was twenty-three. Individuals in late adolescents are facing issues specific to that time of development. This period in their life is time of transitions (Conolly et al., 2000). Adolescents get to engage in new activities that give them more responsibility such as dating, and these new activities may allow adolescents to see themselves as adults for the first time. Therefore, if the study was repeated under the same conditions with older
women, different results are likely because they would be at a different stage of development.

If this study was repeated under the same conditions with men, the results would also be different. Basic differences underlie how women and men communicate. Such as men are more activity focused in their communication and women are more talk focused (Wood, 1997). These differences and others would give the data collected an altered look. Under the same circumstances a study of male participants would probably show less of an emphasis on self-disclosure and an even stronger emphasis on shared activities. Therefore, it would be interesting to compare results of similar studies done on different populations.

I would suggest a triangulation of methods be continued; however, there is one change I would make in the collection of data. In this study the researcher explained the turning point graphs and questionnaire to the participants and then left these items with them. Once they were completed the young women and co-guide mailed these items to the researcher. In order to speed up collection of the data and to cut down on bad reporting which may be a result of memory problems, I would suggest that the researcher schedule a time with each participant to explain the graphs and work with them to complete these items. This process would be more time consuming. It also puts pressure on the participant to perform during a scheduled time. Therefore, it would be important to give the participant as much flexibility as needed to take breaks, stop and come back to certain graphs or work during multiple sessions.

Concluding Remarks

This study allowed us a brief look into the lives of eleven young women as they whispered in the woods. The environment of a month long canoe trip provided an interesting "pressure cooker" situation in which to study relationship development. More importantly, this situation granted the researcher a window from where she could watch how it all happened.
The relationships that developed in this situation provided us a chance to see what produced relationship change. Therefore, one theory was not applied to this study, but instead five spotlights were shown in order to illuminate relationship development. Through in situ observation and data collected from the participants we now have a better understanding as to what produces relationship change.

Self-disclosure which was prevalent in the graphs and questionnaire comments was an important factor of relationship change. Yet, the role of social exchange can be seen as more important by taking into consideration the prevalence of "social exchange" behavior and language that was unreported by the participants. Play, which is related to self-disclosure and social exchange, can be seen as an even more important factor. The data suggests that fun and togetherness are basic elements of relationship development which may be explained by looking at the emotional side of social exchange theories.

These three results along with a modified understanding of stages and environmental factors provide more answers to the relationship development puzzle. Meeting new people and building relationships are a daily part of life; so, there will always be countless opportunities to study this phenomenon.

"The eleven girls I bonded with for 26 days made the return home difficult. It wasn't so much the wilderness aspect-- it was the people. I was definitely scared going into this trip. I didn't know what to expect. I never would have imagined that [it] would have been so good in my wildest dreams. I am so lucky to have had the chance of spending time with girls that I could count on and people that I knew cared." --LVI participant
Appendix A: Illustrations of RIT Graphs

**FIGURE 1**
A sample relationship trajectory

![Figure 1. Illustration of a RIT Graph.](image)

(Lloyd & Cate, 1985, p. 424)

(Baxter & Pittman, 2001, p. 5)
Appendix B: Early Turning Point Graph

FIG. 1 An example of a graph of changes in the probability of marriage.

(Huston et al., 1981, p. 64)
Appendix C: Golish's RIT Graph-- An Illustration of Patterns

**Patterns of Turning Points in Closeness in Adult Child-Parent Relationships**

- a = Single major disruption
- b = Sustained, low to moderate degree of closeness
- c = Sustained, high degree of closeness
- d = Gradual increase of closeness
- e = Irregular cycle
- f = Disrupted progress
- g = Gradual decrease in closeness

Figure 1. Patterns of Turning Points in Closeness in Adult Child-Parent Relationships

(Golish, 2000, p. 89)
Appendix D: Turning Point Graph Given to Research Participants

Participant:

[Graph showing turning points on a line labeled Days of the Trip with markers for close and far and a scale for closeness from 1 to 10]

Explanation:
Appendix E: Questionnaire

Part I: The Return to Minnesota

1. How did you feel the last day of the trip?
2. How did you feel about the trip being over?
3. How do you feel now that you have been home for one week?
4. What made it hard for you to return to Minnesota?
5. What did you miss most about your time in Canada?
6. What "things" (feelings/stories) do people who did not go on the trip have a hard time understanding?
7. What do you often leave out (not tell) your friends and family at home about the trip?
8. What don't you miss about your time in Canada?
9. Who did you miss most while you were in Canada? Why did you miss those people?
10. What relationships on the trip were special to you? Did any of these relationships help you to not miss people back home? (Did they help you "fill the place" of relationships you had back at home?)
11. Since you have been home have you felt like spending a lot of time with other people or have you felt like being alone or staying at home? (How much do you feel like seeing other people?)
12. Since you have been home, how much do you miss your crewmates? Why or why not? Why do you feel that you miss certain people over others? What qualities about those people made you miss them? (What support did you get from those relationships on the trail?)

Part II: Dynamics of the Crew

13. Do you feel "the crew" has bonded? How do you feel about the label "the crew?"
14. How do you feel this crew has come together since the list of participants was posted? Do you feel that "the crew" is close or really is not that close? Why? Do you feel that the crew will become closer over time or drift apart?

Part III: Group Turning Points

15. In your opinion what events this summer (May through August) have changed, affected, or influenced our crew? What were the "turning point" events in how our crew developed? Why do you consider these events influential in the development of our crew?
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