

**TYPES OF TALK, VERBAL AGGRESSIVENESS, COMMUNICATION
CLIMATE 1**

**RUNNING HEAD: TYPES OF TALK, VERBAL AGGRESSIVENESS,
COMMUNICATION CLIMATE**

**An exploratory study of the relationship between defensive and supportive talk,
verbal aggressiveness and communication climate**

by

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fulfillment of the requirements for the MA degree in Communication

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Abstract

Significant research has investigated Jack Gibb's model of defensive and supportive communication, but little has explored the influence of the type of talk -- defensive or supportive -- on perceptions of communication climate and the role that verbal aggressiveness may play in influencing both the types of talk and these perceptions. This thesis explored the relationship between defensive and supportive talk, verbal aggressiveness and communication climate using a mixed-method approach. Specifically, the Verbal Aggressiveness Scale was used to group participants for a dyadic problem solving exercise which generated conversational data that was analyzed qualitatively. Then, the Communication Climate Inventory was used to measure participants' perceptions of the communication climate that emerged in their problem-solving dyad. The findings highlight factors that may influence the perception of communication climate. Examples of supportive talk that builds positive communication climates and limits the effects of verbal aggressiveness and examples of defensive talk that leads to negative communication climates are provided. This research demonstrates that language has an influence on communication climate through the words that shape the complex ways people perceive and understand each other and, interestingly, that the negative impact of defensive communication overrides the positive impact of supportive communication on the emergent communication climate.

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List of Abbreviations

VAS – Verbal Aggressiveness Scale

CCI – Communication Climate Inventory

HD – High Dyad

LD – Low Dyad

MD – Mixed Dyad

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Chapter One: Introduction

Communication messages that are transmitted verbally as well as nonverbally contribute to the tone of relationships. Whether the messages are perceived as positive or negative influences how people feel about each other and themselves as they carry out their daily routines. *Communication climate* is a term that refers to this emotional tone of a relationship (Adler, Rosenfeld, Proctor & Winder, 2009). In other words, it describes the way people feel about each other as they carry out their daily activities. Climates are found in friendships, families and all other kinds of relationships that have their own social tone.

Theoretical Foundation

Once a communication climate is created, the pattern continues by being either positive or negative. Understanding climate patterns helps explain how communication climates can effectively build a relationship or destroy it. Messages over time can form climate patterns which often take shape as positive or negative spirals. *Verbal aggressiveness* can be defined as an exchange of messages between two people in which one person attacks the self-concept of the other in order to hurt him or her psychologically (Infante & Wigley, 1986). This aggressive type of climate pattern is created from one attack leading to another until eventually a negative communication climate is recreated in the relationship.

The most fundamental effect of verbal aggression is self-concept damage. An interpersonal approach to communication climate is useful in describing the impact of messages on people's self-worth. Verbal aggression can also be explained as "a personality trait that predisposes persons to attack the self-concepts of other people

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instead of, or in addition to, their positions on topics of communication” (Infante & Wigley, 1986, p. 61). Indeed, verbal aggressiveness can result in having the receiver of such messages feel less positively about him or herself. The most influential factor in shaping a communication climate is the degree to which the people involved see themselves as being valued. According to Infante and Wigley, the damage from verbal aggressiveness can be even more harmful and long lasting than the results of physical aggression.

Positive climates tend to be created more through supportiveness, just as negative climates emerge from defensiveness. An important publication by Jack Gibb in the *Journal of Communication* (1961) explains the contrasting behaviours of defensive and supportive types of talk and their impact on climate. He defines *defensive communication* as: “that behaviour which occurs when an individual perceives threat or anticipates threat in the group” (p. 141). Conversely, *supportive communication* is defined as those messages and behaviours that reduce defensiveness and create a more supportive and positive climate. His study is useful in that it describes how positive climates can be created through supportive messages, and how negative climates can also be enacted through defensive messages. This conceptualization is very important to the field of communication as it has many applications. Gibb’s findings have played an important part in communication textbooks, training seminars, journals, and research studies (Moss, 1999; Proctor and Wilcox, 1993).

Rationale

The influence of defensive and supportive talk on communication climate provides a strong justification for studying verbal aggression, in order to allow for greater

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control by those who receive such messages over its destructive impact on relationships. The significance of studying defensive communication from both a personal and societal perspective is that verbal aggression has the potential to escalate from differences in opinion to much worse physical acts of violence (Infante & Wigley, 1986). Such research can give examples of messages that are both productive and supportive and demonstrate how a particular style of talk can be more likely to build a positive communication climate than others.

This thesis will explore in detail the theoretical framework on what creates communication climate as well as noting the approaches and researchers who have addressed the topic of verbal aggressiveness, and the influence that defensive and supportive communication has on interpersonal climate. Gibb's (1961) model of defensive and supportive types of talk, including the twelve categories that influence a positive or negative communication climate, will be discussed in detail as a solution for how to transform communication climates and protect oneself against the problematic effects of a negative spiral gone out of control through the use of defensive messages. Understanding how people can learn to communicate differently and more effectively with others might help provide them with more choice in their behaviour than many of the responses that result from defensiveness. In other words, perhaps those who lack communication skills are more likely to use a defensive type of talk. The use of such defensive talk might ultimately destroy relationships in contexts such as family, the workplace, classrooms or even therapeutic settings. Exploring the problematic language of defensiveness along with the potential solution given by Gibb's work can provide interpersonal communication researchers with additional insights regarding how a

supportive style of talk creates a positive communication climate, which in turn, can be taught to others in order to limit the effects of verbal aggressiveness.

It is important to note, however, that one should not be left with the impression that interpersonal communication is a passive and unidirectional process. That is to say interpersonal communication is a transactional process in which more than just the deliverance of one message after another occurs. A person's self-concept plays a major role in the communication process through complex emotional messages sent to the other, which can result in the choice of words one uses having less of an impact than the non-verbal way those words are delivered. The researcher would like to acknowledge at the onset of this study that one can not simply influence the perception of communication climate without taking into consideration the environment in which the communication occurs. For example, when one is communicating in the context of work instead of personal issues, it is plausible to think that the impact of defensive and supportive talk might be different. Therefore it is also important to take into account the many different contexts of a relationship, which might include physical, temporal, and social-psychological dimensions. All of these different contexts influence the content and form of communication and these factors should not be ignored. Nevertheless, the current study will focus on the use of language and how defensive and supportive types of talk influence perceptions of communication climate.

Research Question

Infante and Wigley (1986) developed an instrument for measuring verbal aggressiveness. The Verbal Aggressiveness Scale (see Appendix 1) distinguishes a "preference for verbally aggressive messages from preferences for other forms of

communication” (p. 63). This thesis investigates the problematic effects of verbal aggressiveness along with the potential solution given by Gibb’s (1961) work, whereby negative communication climates may be influenced by using supportive types of talk. Therefore, this thesis seeks to explore the relationship of different types of talk and examine their impact on perceptions of communication climate. The research question asks: what is the relationship between defensive and supportive talk, verbal aggressiveness and communication climate?

Methodology

In order to understand the relationship between defensive and supportive talk, verbal aggressiveness and communication climate, a mixed-method design was used. This study used the Verbal Aggressiveness Scale (VAS) in order to measure the communication behaviour of students in the University of Ottawa’s Introduction to Communication courses (CMN 1160) offered in the fall semester of 2010. After explaining the study to the class, the scale was distributed to all students in the course. As well, students were invited to indicate whether they would be willing to participate in the follow up exercise and their contact information was requested. Thus, the Verbal Aggressiveness Scale was administered as a way to organize groups for the problem solving exercises, rather than a scale strictly used for analysis.

The researcher contacted all participants to indicate their availability to partake in the problem solving exercise that followed. This exercise allowed for a maximum 10 minute dyadic discussion between participants (thirty-eight participants, or 19 pairs) who were placed in pairs based on their Verbal Aggressiveness Scale scores. The nineteen dyads who partook in the experiment were organized into three different categories of

dyads: one category of participants was composed of dyads who both had scored high on the Verbal Aggressiveness Scale, a second category was composed of dyads who both scored low and a third category was composed of a mixed dyad of both high and low scores. After participants completed the consent form, they were asked to follow instructions in order to negotiate and solve a problem together (see Appendix 2) using their natural language style. The interactions were tape-recorded and these recordings were transcribed verbatim. The exercise provided useful data that was analyzed and categorized under Gibb's list of defensive and supportive communication behaviours.

Lastly, a survey that measures interpersonal communication climate (see Appendix 3), called the Communication Climate Inventory (CCI), was distributed immediately after the problem solving exercise, in order to determine participants' perception of the communication climate of their interaction based on their conversation in the exercise. Three hypotheses were proposed: first, that when two people who both scored high on verbal aggressiveness completed the problem solving exercise, the conversation during the exercise would be characterized by a more defensive type of talk, and the partners would perceive a negative communication climate. The second hypothesis was that when both people scored low on verbal aggressiveness, the conversation exhibited in the exercise would be characterized by a more supportive type of talk, and they would perceive a positive communication climate. Finally, those conversations that included a mix of both high and low scores might have a more neutral communication climate.

Structure

The following chapters will further explore the relationship between defensive and supportive types of talk, verbal aggressiveness and communication climate.

Chapter 2, entitled *Theoretical Framework and Literature Review*, discusses an interpersonal approach to communication climate. An explanation of the epistemological roots will be drawn from the literature prior to Jack Gibb's study as well as the arguments and debates from a variety of researchers that appear after the study. Communication climate, verbal aggressiveness, defensiveness and supportiveness will all be explained in greater depth and detail. After the chapter reviews the relevant concepts, it also gives a rationale for the importance of conducting the study. The purpose of the study and research problematic will also be explained.

Chapter 3, *Research Design and Methodology*, will explain the main research question that is linked to the theoretical framework on communication climate. It will outline the research design implemented and summarize the quantitative and qualitative measures employed in the current study, including the criteria used to determine the use of a mixed-method strategy.

Chapter 4, *Results and Discussion*, will provide rigorous critical thinking and analysis of the research findings. Emphasis will be placed on exploration and description in order to offer new variables and questions for further research. The data collection procedures will be discussed along side survey and case study findings. Finally, a summary of the research findings will be given.

Chapter 5, *Conclusion*, will discuss the importance of the findings as they contribute to knowledge, and how such findings are beneficial for future studies. An acknowledgement of the limitations and implications of the study for the field of

interpersonal communication will also be discussed.

Chapter Two: Theoretical Framework and Literature Review

Communication Climate

Every relationship has an underlying social tone, or in other words a shared pattern of feelings which has an influence on the actions of those involved. The term *communication climate* refers to this emotional tone of a relationship, which does not refer to any specific activity, but more on the way people feel about each other as they carry out those activities (Adler et al., 2009). In other words, it is the way the people in a relationship or specific context feel about and treat each other.

The analogy of a communication climate with that of a weather climate, such as warm, cold, sunny, or stormy, is useful metaphorically speaking in describing the emotional tone of those involved. Such an analogy implies that communication climates can and will change over time. However, when two people are communicating, not all talk is equally productive in solving interpersonal conflict. One of the best ways to examine a destructive versus productive style of talk is to look at how one's communication creates either an unproductive defensiveness, or a productive sense of supportiveness (Devito, 2008).

However, while describing communication climates using weather analogies is useful, it can also be misleading due to the implication that, unlike weather conditions, people influence their communication climates and can change them over time. This influence can be seen through Jack Gibb's (1961) study in which he conceived the terms defensive and supportive communication. Gibb describes how communication climate can be perceived as positive or negative by those involved, and that this will have an impact on the relationship between them. An approach to transforming communication

climates developed by Gibb is still used extensively by communication researchers today. Specifically, for more than three decades, Jack Gibb's "observational research has been used as a framework for both describing and prescribing verbal behaviours that contribute to feelings of either supportiveness or defensiveness" (Beebe et al., 2007, p. 143). Gibb spent several years listening to and observing groups of individuals in meetings and conversations, noting that some exchanges seemed to create a supportive climate whereas others created a defensive one. He concluded that words and actions are "tools we use to let someone know whether we support them or not" (p. 143). In other words, his study explains how communicators can create a supportive communication climate rather than one characterized by defensiveness.

Gibb's study examines why some communication creates a positive climate while other communication has the opposite effect. An explanation of how communication climates develop comes from studies following his work, which demonstrate that communication climates are "determined by the degree to which people see themselves as valued" (Adler et al., 2009, p. 288). That is to say, people who perceive others as appreciating and respecting them react positively, whereas those who feel unimportant or abused react negatively.

The specific kinds of messages people receive from others can have an impact on the perception of communication climate. Some responses are called confirming, while other responses are considered to be disconfirming (Beebe et al., 2007). A confirming response is an "other-oriented" statement that should lead others to value themselves more (p. 117). Researchers use the term confirming communication to describe messages that convey valuing. In contrast, a disconfirming response is a statement that leads others

to value themselves less. Disconfirming communication signals a lack of regard. It is important to note that disconfirming messages, like every other form of communication, are a matter of perception. A message that was not originally intended to devalue the other person can sometimes be interpreted as disconfirming (Adler et al., 2009). Also, every message has a relational aspect along with its content, and this means that confirming and disconfirming messages are both sent and received whenever people communicate. In other words, it is not what people communicate about with each other that influences communication climate as much as how they speak and act toward one another.

Supportiveness

A positive communication climate tends to be created through supportiveness. A supportive response can be one of the most important kinds of confirming responses. A supportive response is when there is an expression of reassurance and understanding, and when someone is “confirming a person’s right to his or her feelings” (Beebe et al., 2007, p. 117). As mentioned above, confirming communication can be defined as messages that convey valuing, and cause another person to value him or her selves more. Such confirmation can create a positive communication climate, one which is characterized by the term *supportiveness*.

Those who receive supportive messages determine whether they have the effect that was intended by another. Communicating with confirming responses requires actively listening to the other person. For example, Gottman (2006) used video cameras and microphones in order to observe couples interacting in an apartment. He found that a significant predictor of divorce was neglecting to confirm one’s marriage partner during

everyday conversation, and that those couples who were less likely to divorce spent only a few seconds more confirming their partner than couples who eventually did divorce.

His research conclusion is that lasting relationships are characterized by supportive, confirming messages (Beebe et al., 2007). The everyday kinds of confirmation and support people offer does not need to be excessive. Instead, Beebe et al. suggest, “sincere, moderate, heart-felt support is evaluated as the most positive and desirable kind of support” (p. 117).

Supportive statements are more likely to result in a positive communication climate, and thus the words people hear when conversing are essential to establishing a positive relationship with others. Yankelovich (1999) suggests that the goal of conversations with others should be to establish a genuine dialogue rather than to verbally abuse a partner in order to win the argument. The term dialogue means “establishing a climate of equality, listening with empathy, and trying to bring assumptions into the open” (Beebe et al., 2007, p. 143). Beebe et al. note that expressing “equality, empathy and openness, and avoiding biases are more likely to occur if one approaches conversations as dialogue rather than debate” (p. 143). In what is referred to as true dialogue, “people look for common ground rather than using a war of words to defend a position” (p.143).

Moreover, underlying a supportive communication climate is the importance of providing emotional support when communicating with others. A basic principle of all healthy interpersonal relationships is “the importance of positive, supportive messages that communicate liking or affection” (Beebe et al., 2007, p. 148). As a relationship

develops over time and people gain more credibility and influence, messages of support become even more important in maintaining the quality of the relationship.

However, it is important to note that people who communicate with supportiveness do not only use words of support but non-verbal expressions of support as well. The work of Burleson (2009) describes the concept of supportiveness through outcomes of supportive interactions. Supportive communication is defined as “verbal and nonverbal behaviour produced with the intention of providing assistance to others perceived as needing that aid” (p. 21). Burleson examined the factors that affect people’s evaluations of supportive messages in two studies. In both studies there was evidence that very high levels of emotional upset reduced the ability to process supportive messages. This finding suggests that emotional upset both positively influences processing motivation and negatively influences processing ability. In other words, even the most helpful supportive messages might produce less than expected results for the receiver experiencing extreme upset. The results of the studies show that both message content and environmental cues affect outcomes of supportive communication.

Put another way, positive and negative emotions can either contribute to or reduce effective processing ability during conversations. According to Patterson and Ritts (1997), when people become anxious, they generally tend to speak less. This in turn leads to their needs not being met. However, when they do manage to speak up, those experiencing anxious and debilitating emotions are less effective at resolving a conflict than those who experience more confident and positive emotions. Similarly, Peck (1998) describes how emotional regulation is essential to reducing defensiveness and creating a supportive communication climate. Peck’s research explains how effective group

counsellors reduce defensive communication and create group climates which foster trust (Adler et al., 2009). Using Jack Gibb's categories, Peck documented techniques that effective counsellors used to reduce defensiveness in their group therapy sessions:

The most critical feature identified by the counsellors was how they used their own emotional reactions to recognize when incidents were arousing defensiveness within the group. They needed to start with themselves and regulate their own internal emotions before they could apply any of the strategies to reduce defensiveness in the group (p. 305).

Peck's research implies that before one can effectively use Gibb's categories to create a more positive, supportive communication climate, they must effectively regulate their own emotions. Interestingly, the therapists in Peck's study used self-talk to help themselves gain more emotional control in defence arousing situations.

Defensiveness

In contrast to supportiveness, negative communication climates tend to emerge from what is labelled as defensiveness. Again, disconfirming communication can be seen through messages that communicate a lack of regard, and cause another person to value themselves less. This can lead to a negative communication climate characterized by defensiveness. Defensiveness suggests protecting oneself from an attack, and guarding the presenting self and face (Adler et al., 2009). However, when someone becomes defensive in face-to-face communication, an actual physical threat is not involved. Defensiveness does not refer to threatening someone physically through bodily injury or other attacks that might stem from more aggressive messages meant to inflict pain. Someone who is communicating defensively is guarding against something different than

such aggressiveness. This difference can be explained through terms such as the presenting self, or what is also referred to as face.

The *presenting self* consists of the “physical traits, personality characteristics, attitudes, aptitudes, and all other parts of the image you want to present to the world” (Adler et al., 2009, p. 295). Also, there is not just one single face because a person might try to project different selves to different people depending on which role they take in the conversation. The term *face* is defined as “the different selves we present to different people” (p. 296). When others are willing to acknowledge different parts of their presenting self, there is no need to feel defensive. Conversely, when others are confronted with *face-threatening acts*, which are defined as messages “that challenge the presenting self that people want to project”, than they are likely to resist what others say (p. 296). Thus, defensiveness is the process of protecting the presenting self, or the face. The concept of face refers to “the self-image or self-respect that you and your partner seek to maintain” (Beebe et al., 2007, p. 219). Communication researcher Ting-Toomey (1994) has stressed the importance of face saving and maintaining a positive self-concept when communicating, especially in collectivist cultures such as those in Asia, where she claims maintaining face is especially important. She writes that finding ways to allow others to save face is an important “other oriented” approach when communicating with people.

Hence the concept of face has important relevance to interpersonal conflict. Strategies that enhance a person’s self concept and that “acknowledge a person’s autonomy will not only be polite, they are likely to be more effective than strategies that attack a person’s self-image and deny a person’s autonomy” (Devito, 2008, p. 264). According to a study by Donohue and Kolt (1992), even when people get what they want,

it is wise for the “winner” to help the “loser” retain face because it makes it less likely that future conflicts will arise. It is thus important to note how the self-concept plays a role in creating and influencing communication climates by discussing how the face influences communication climate and how defensiveness is related to people’s self perceptions. A look at self-perceived flaws as defined by researchers in other studies can help explain how defensiveness works alongside the self-concept in creating and influencing communication climate.

Understanding communication climate starts with Gibb’s concept of defensiveness and is followed by numerous studies influenced by his work. A study by Glen Stamp et al. (1992) found that people get defensive about their *self perceived flaws*. That is to say people get defensive about flaws they do not want to discuss or areas about which they feel sensitive or perhaps inferior. The researchers also noted other causes of defensiveness, which up to this point in the discussion of Gibb’s model have not been mentioned. Gibb’s study explains defensiveness from the point of view of a person who feels threatened. Stamp et al. noted that “an attack by another person which focuses on an area or issue the attacker perceives as a flaw is also a cause of defensiveness (p. 185). This approach makes sense from an interpersonal perspective in that it takes into account the role played by those who send face threatening messages. The authors hypothesize that defensiveness is related to:

- (1) A self-perceived flaw which the individual refuses to admit, (2) a sensitivity to that flaw, and (3) an attack by another person which (4) focuses on an area or issue that the attacker perceives as a flaw in the other (p. 177).

In other words, defensiveness is a social construct and both the sender and receiver of messages contribute to communication climates.

Defensiveness can be understood by acknowledging when an important part of the presenting self is attacked. For example, people might feel threatened if certain claims about them are not true, or they might respond defensively when they feel they have made a mistake. In fact, people often feel most defensive when criticism is right on target (Stamp et al., 1992). It is important to note that defensiveness is not only the responsibility of the person who feels threatened. Such an approach ignores the role played by those who send face-threatening messages. According to Cupach and Messman (1999), competent communicators protect the face needs of others as well as their own. Their study showed that the people who college students judge as close friends are those who provide positive face support through acknowledging the presenting self of others. Studies such as this have shown that defensiveness is interactive, and both the sender and receiver of interpersonal messages contribute to communication climates.

Verbal and Non-Verbal Messages

Communication climate is the emotional tone of a relationship, and thus is created and influenced by the verbal and non-verbal display of emotions that are encoded within interpersonal messages. Self-perceived flaws that influence defensiveness can be displayed by verbal and non-verbal expressions that work alongside someone's perception. As Adler and his colleagues (2009) explain, the perception of the verbal or non-verbal message points out many factors that can cause us to perceive an event in a different manner. These factors can include physiological, social roles, and even human needs, all of which "shape and distort the raw data we hear into very different messages"

(p. 196). Because every person interprets data in a unique way, one has to accept the fact that he or she can never completely understand another person. What's more, people bring their personal experiences with them into every interaction. This affects the way people make sense of the words and actions of others. Research by Spitzberg (1991) noted that dyads typically achieve only twenty-five to fifty percent accuracy in interpreting or representing each other's behaviour. This means that the ability of people to listen to another is constantly influenced by their unique perspective and past experience. Consequently, an important factor that influences perception is the self-concept (Hinde et al., 2001). Another study by Alberts et al. (1996) showed that perception is the greatest factor for people who are being teased and interpret it as friendly or hostile, and thus whether they respond comfortably or defensively.

In the same way, one can also send a message that acknowledges the other's presenting self even when they disagree. This process occurs through both the verbal and non-verbal display of messages. For example, on a content level, one can express dissatisfaction with another person, but on a relational level one can also be saying -- explicitly or non-verbally -- that they value that person as well (Adler et al., 2009). It is important to acknowledge that although language may shape thoughts and behaviour, it does not always dominate the message and non-verbal communication can sometimes be just as important if not more to the meaning of the message. Perceiving other people more accurately can be quite challenging, and as Adler et al. (2009) note "when people view themselves in a distorted way, these self-perceptions can generate feelings that interfere with effective communication" (p. 110), and thus influence positive or negative communication climates.

To complicate matters, non-verbal emotional expressions can also be contagious. That is to say that people might display the same emotions that another person is displaying. The term “emotional contagion” suggests that people tend to catch the emotions of others (Beebe et al., 2007, p. 185). In other words, social interactions can have an effect on the non-verbal expression of emotions. However, being aware that someone might be imitating the emotional expression of others can help them interpret their own non-verbal messages and those of others more effectively.

Emotional contagion is a process by which emotions are transferred from one person to another (Goleman, 1995). Researchers have demonstrated that this process can happen quickly, and with little or no verbal communication (Sullins, 1991). Thus, the expression of one’s emotion is an important communication skill to acknowledge. The work of Goleman (1995) explains how emotional intelligence, referred to as the ability to recognize our own feelings as well as those of others, impacts communication climate through communication competence. For instance, people with low emotional intelligence are more likely to engage in physical aggression such as fighting, and psychological aggression such as insults (Swift, 2002; Trinidad & Johnson, 2002). To put it briefly, being aware of one’s feelings and expressing them constructively is essential to effectively communicating with others.

Climate Patterns

Understanding communication climate patterns can help explain how climates effectively build human relationships or ultimately destroy them. As discussed, communication climate refers to the emotional tone of a relationship and the most influential factor in shaping a communication climate is the degree to which the people

involved see themselves as being valued and confirmed. Over time, these messages form climate patterns that often take the shape of positive or negative spirals.

As noted earlier in this discussion, positive climates tend to be created more through supportiveness, and, alternatively, negative climates emerge from defensiveness. However, once a communication climate is formed, it can take on a life of its own, or in other words, the pattern can be either positive or negative. In one study of married couples, each spouse's response in conflict situations was found to be similar to the other spouse's statement (Burggraf & Sillars, 1987). This means that supportive statements were likely to be followed by other supportive responses, just as aggressive acts were likely to trigger an aggressive response. This pattern was also found in a study on disagreements of married couples (Newton & Burgoon, 1990). The interactions of the couples were videotaped and it was revealed that accusations from one spouse triggered accusations in response, and that communication satisfaction was highest when both spouses used supportive rather than accusatory tactics.

This reciprocal communication climate pattern can be represented as a spiral (Wilmot, 1987). Some spirals are negative while others are positive. In dysfunctional and abusive couples, studies have found that one spouse's complaint is likely to produce a counter complaint by the other (Sabourin & Stamp, 1995; Sutter & Martin, 1998). Yet spirals can work in a positive direction as well. A confirming message can lead to a similar response by the other person, which in turn can lead to further confirmation by the first person (Le Poire & Yoshimura, 1999). In any event, whether spirals are positive or negative, they rarely go on endlessly.

When a negative spiral gets out of control, both parties might agree to back off from their aggressive behaviour. At this point, there may be “a cooling-off period or the partners may work together more constructively to solve their problem” (Adler et al., 2009, p. 297). However, if the partners pass “the point of no return” then the relationship may end. It is impossible to take back a message once it has been sent, and some exchanges are “so lethal that the relationship cannot survive them” (p. 298). On the contrary, positive spirals can also have their limit. Under certain circumstances, even the best relationships go through “rocky periods” in which the communication climate suffers, however “the accumulated goodwill and communication ability of the partners can make these times less frequent and intense” (p. 298). To illustrate, Cahn (1992) summarizes studies showing that even among well-adjusted couples, negative communication is more likely to be reciprocated than is positive talk. This type of negative climate spiral can have one attack leading to another until it escalates into a conflict and aggressiveness ensues.

With this in mind, an interpersonal approach to communication climate is useful in describing the impact of defensiveness on people’s self-worth. Once a communication climate is created, the pattern continues by being either positive or negative. Cahn and Tubbs (1983) explain that negative communication is more likely to be reciprocated than positive, and that once hostility is expressed, it usually escalates. This pattern of negative communication is created from one attack leading to another until eventually a defensive communication climate is recreated in the relationship. Indeed, defensiveness is at the heart of the most negative of spirals, and occurs when individuals perceive their presenting self as being attacked by face-threatening acts. As seen above, people become

particularly defensive about flaws they do not want to admit and those that touch on sensitive areas. Both the attacker and the person attacked are responsible for creating defensiveness, since effective communication entails protecting other people's face needs as well as their own. Devito (2008) explains that instead of focusing on a solution to a problem, some people try to place blame on the other person. He writes that "whether true or not, blaming is unproductive, as it diverts attention away from the problem and from its potential solution, and it creates resentment that is likely to be responded to with additional resentment" (p. 264). The conflict then spirals into personal attacks, leaving individuals and the relationship in a worse condition than before it had begun.

Even so, the most damaging types of defensive messages for interpersonal relations are those that inflict psychological pain and attack the self-concept of the other. When supportive communication is present, it can help transform an actual or potentially negative climate into a more positive one. When absent in the conflict, a defensive communication climate can lead into a negative, downward spiral that creates more damaging and extreme messages, which further inflict pain, destroy relationships, and impact society through violence or other extreme acts of aggressiveness. This type of communication behaviour, referred to as verbal aggressiveness by Infante and Gordon (1989), and which they contrast with argumentativeness, will now be explained along with the damaging effects that follow a negative communication spiral gone out of control.

Verbal Aggressiveness

Despite the many different ways to disagree with others, the most destructive of such messages are those called aggressiveness. Dominic Infante and his associates (1992)

define *verbal aggressiveness* as the tendency to “attack the self-concepts of other people in order to inflict psychological pain” (p. 166). Unlike argumentativeness, aggressiveness devalues the worth of others. For example, “name calling, put-downs, sarcasm, taunting, yelling -- all are methods of ‘winning’ disagreements at someone else’s expense” (Adler et al., 2009, p. 291). Infante (1987) identified nine types of direct aggression. The results of such aggression can have a severe impact on the person who receives it. What’s more, there is a significant connection between verbal aggression and physical aggression (Infante et al., 1989). Specifically, research shows that verbal aggressiveness is associated with physical violence in marriages (Infante et al., 1989), juvenile delinquency (Atkin et al., 2002), depression (Segrin & Fitzpatrick, 1992), and a negative communication climate in both the workplace (Infante & Gorden, 1985, 1987, 1989) and the classroom setting (Myers & Rocca, 2001).

Even if the verbal attacks never lead to physical exchanges, the psychological effects can be harmful and devastating to the relationship. These results can lead to decreased effectiveness in personal relationships, on the job, and in families (Beatty et al., 1996; Kinney & Segrin, 1998; O’Brien & Bahadur, 1998; Venable & Martin, 1997). Verbal aggression affects the relationship as well as the receiver of such messages. One aggressive remark can lead to a destructive spiral that can expand beyond the original dispute and damage the entire relationship (Infante, 1988; Turk & Monahan, 1999). In other words, verbal aggressiveness has been found to have a variety of serious consequences. Also, aggressive behaviour is especially hurtful when it comes from people who are close to us (Martin et al., 1996).

Argumentativeness

In contrast to aggressiveness is argumentativeness. A disagreeing message can be perceived as disconfirming, and because there are better and worse ways to disagree with others, disagreeing messages need to be put on a “positive-to-negative scale” (Adler et al., 2009, p. 289). Three types of disagreement are argumentativeness, complaining, and aggressiveness. Communication researchers define *argumentativeness* as presenting and defending positions on issues while attacking positions taken by others (Infante & Rancer, 1982). Myers and Rocca (2001) compared argumentativeness and verbal aggressiveness and found that when instructors in a classroom setting are perceived to engage in argumentativeness, they promote student motivation. However, when they are perceived to engage in aggressiveness this diminishes student motivation. This can explain how “win-win” approaches to conflict are healthier and more productive than the “win-lose” tactics of aggressiveness (Devito, 2008, p. 260). Furthermore, argumentativeness is associated with a number of positive attributes. This can include an enhanced self-concept (Rancer et al., 1992), increased communicative competence (Onyekwere et al., 1991) as well as a more positive communication climate in the workplace (Infante & Gorden, 1987).

Argumentative Skill Deficiency

Several reasons for some people’s reliance on verbal aggression in interpersonal communication have been suggested. One, called *argumentative skill deficiency*, is when “individuals resort to verbal aggression because they lack the verbal skills for dealing with social conflict constructively” (Infante & Wigley, 1986, p. 62). The idea of an argumentative skill deficiency as a cause of verbal aggression is “consistent with the analysis of Bandura (1973) and Toch (1969), who concluded that violent persons often do

not have the verbal skills for dealing with normal frustrations and feel violence is their only alternative” (p. 62). To sum up, the key to maintaining a positive climate while arguing a point is the way one presents his or her ideas. It is important to attack the issue, and not people who disagree on the issue. Further, a sound argument is received better when it is delivered in a supportive, affirming manner (Infante & Gorden, 1989). The supportive kinds of messages in Jack Gibb’s model show how it is possible to argue in a productive way in order to counter the damaging effects of verbal aggressiveness. Indeed, this thesis seeks to contribute to the current body of knowledge on communication climate by evaluating the impact of different types of talk. Such research can help to reduce the amount of verbal aggression in human communication along with the amount of violence that might be created in society due to argumentative skills deficiency.

Gibb’s Categories of Defensive and Supportive Communication

The words people use can build or destroy the quality of relationships they have with others. As Adler et al. (2009) write: “language reflects the speaker’s willingness to take responsibility for her or his beliefs, feelings and actions” (p. 143). Whether the speaker accepts or rejects this responsibility is a style of communication that can shape the tone of a relationship. In other words, language has a strong effect on our perceptions and how we regard one another. This thesis will now look at some specific types of language usage as described by Gibb (1961) and examine both their value and the problems they can cause in communication climate.

Gibb’s study gives suggestions for creating messages that are both productive and supportive. People who use supportive communication avoid using language that in any way disconfirms or devalues others. However, not all supportive messages are guaranteed

to create a positive climate. In fact, a complimentary comment “can be interpreted as sarcasm; an innocent smile can be perceived as a sneer; an offer to help can be seen as condescension” (Devito, 2008, p. 260). Especially since human communication is so complex, there are no unfailing words or actions that assure a positive communication climate. Nevertheless, Gibb’s work along with others has shown how a particular style of talk is much more likely to build a positive climate spiral, as well as to create, or repair, a negative climate. His model of defensive and supportive types of talk includes twelve concepts that influence a positive or negative communication climate. The different behaviours are paired as opposites as shown below in Table 1 (Adler et al., 2009). Each of these will be discussed in detail below, and explained as a solution for how to transform communication climates and protect oneself against the problematic and damaging effects of a negative spiral gone out of control through the use of verbally aggressive messages.

Table 1

The Gibb Categories of Defensive and Supportive Communication

Defensive Communication	Supportive Communication
1. Evaluation	1. Description
2. Control	2. Problem Orientation
3. Strategy	3. Spontaneity
4. Neutrality	4. Empathy
5. Superiority	5. Equality
6. Certainty	6. Provisionalism

1. Evaluation vs. Description

The first type of defensive talk is evaluation. An evaluative message judges the other person. In other words, a message might be judging rather than describing one's thoughts or feelings. This judgment can often be expressed in the kinds of defence arousing "You" messages that trigger a negative response (Adler et al., 2009). In contrast, description is a way to offer thoughts and feelings without judgment. These types of messages are "observations that can be specific and concrete" (p. 298). For example, description focuses on behaviour that can be changed rather than on personal characteristics that cannot. These descriptive messages are often expressed in the form of "I" messages (Proctor & Wilcox, 1993). For example, when contrasting evaluative with descriptive messages, language such as supportive "I" messages can be more likely to create a positive communication climate than defensive "You" messages.

It is important to note the arousing impact that "You" language can have on defensiveness. "I" language can be a much more accurate way to express a complaint that is less likely to provoke defensiveness (Kubany et al., 1992; Winer & Majors, 1981). Research shows that it is not a sure thing that a well delivered "I" message will always receive a supportive response (Gordon, 1970). Interpersonal communication researchers Bippus and Young found that "simply prefacing an emotionally charged piece of feedback with the word 'I' instead of 'You' doesn't always melt away relational tension" (Beebe et al., 2007, p. 145). The researchers had their participants read hypothetical examples in which people used either "I" messages or "You" messages, and found no significant difference in how people thought others would respond to the messages (Bippus & Young, 2005). In other words, an "I" message was not found to be better than a "You" message in all cases. However, it is important to note that the participants were

reading a message rather than actually experiencing a conversation with a partner which may have affected the results. The study concluded that people do not like to hear negative expressions of emotion directed towards them, regardless whether it is attached to an “I” or “You” message. Even more, “I” language that is used too often can be taken by others as egotistical (Proctor, 1989). Other research shows that “self-absorbed” people are associated with a constant use of “first-person singular pronouns” in the style of talk they choose (Raskin & Shaw, 1988; Vangelisti et al., 1990). Given these facts, “I” language proves to be most effective when used in moderation.

2. Control vs. Problem Orientation

The second type of defensive talk is called control. These kinds of messages are seen as an attempt to control another. This occurs when a “sender seems to be imposing a solution on the receiver with little regard for the receiver’s needs or interests” (Adler et al., 2009, p. 366). Controlling messages can communicate status and even create hostility. When people act in controlling ways the outcome for communication climate might be defensive and negative. In contrast to controlling, problem orientation puts a focus on finding solutions and is more collaborative. This can make a major difference because the person is demonstrating a willingness to satisfy the needs of all those involved. The goal in problem orientation is not to be right but to solve the problem. Problem orientation is often typified by “We” language.

To avoid the negative perceptions associated with the overuse of “I” language, one can use “We” language instead. Such language implies that “the issue is the concern and responsibility of both the speaker and receiver of a message” (Adler et al., 2009, p. 144). In other words, “We” language can be a useful way to build a more productive and

positive communication climate. It suggests a kind of “we’re in this together orientation” (Gorham, 1988). Overall, couples who use “We” language are more satisfied than those who rely more heavily on “I” and “You” pronouns (Honeycutt, 1999; Sillars et al., 1997). Proctor and Wilcox (1993) write about the most effective pronouns to use in interpersonal communication climate. They found that “I” and “We” combinations were strongly endorsed by college students, particularly for confrontational conversations in romantic relationships. Vangelisti and her associates (1990) came up with a similar conclusion in their study, which is that combining “I” references with references to other persons, objects and events had a positive impact on communication climate. In summary, all three pronouns, “I”, “You” and “We” messages each have their own advantages and disadvantages when used in human communication.

3. Strategy vs. Spontaneity

Thirdly, the term strategy describes defensive talk that is characterized by hiding one’s motives. Such behaviour can create dishonesty and manipulation in relationships (Adler et al., 2009). For example, many forceful sales techniques can be strategic. Messages that give others limited information and are hiding motives can indicate that strategy is involved. Spontaneity is the supportive type of talk that contrasts with strategy. Spontaneity means being honest with others instead of manipulating them (Adler et al., 2009). This entails making sure that there are no hidden agendas others might sense and that will cause them to resist. Spontaneity can be very useful in lowering the level of defensiveness created from strategy.

Another way strategy occurs is through “questions that carry hidden agendas” (Adler et. al., 2009, p. 205). Such questions are not asked in order to increase

understanding but instead are put in place as a setup for a proposal to follow. Since they are strategic rather than spontaneous, these questions are likely to provoke defensiveness. Namely, Adler et al (2009) write that “sincere questions are aimed at understanding others; counterfeit questions are really disguised attempts to send a message, not receive one” (p. 205). Thus, such questions are more likely that they will lead to a defensive communication climate. According to Coates (1986), there are also types of questions that can “trap the speaker”. This describes how listeners sometimes use tag endings such as “did you?” or “isn’t that right?” to confirm understanding. Despite this tag endings can also be forceful and dishonest, and consequently seen as strategic rather than spontaneous. Other research by Bjorklund and his colleagues (2000) showed children and adults a video of a theft and interviewed them several days later using both “leading” and “free recall” questions. The study concluded that the adults were not affected by the type of question asked, but the children who were asked leading questions had a less accurate memory of the video than those who were asked free recall questions. When communicating with others regardless of age, avoiding the perception that one is dishonest and manipulative is important to building and maintaining a supportive, positive communication climate.

4. Neutrality vs. Empathy

Neutrality is the fourth type of defensiveness. A word that can be helpful in clarifying neutrality is indifference (Adler et al., 2009). Feelings of indifference may arise in people who do not see themselves as being valued by others. On the contrary, Gibb uses the term empathy to oppose neutrality. Empathy is defined as accepting another’s feelings and putting oneself in another’s place (Adler et al., 2009). For

example, a person who expresses caring and respectful messages to others might increase the chances for a positive communication climate. Empathy can be useful in reducing defensiveness through the use of supportive messages.

It is important to note that certain language can more effectively accept another person's feelings and show empathy towards them. The "I" language mentioned above makes it clear that one can own their feelings, however it can also be useful in expressing empathy and caring towards the other. Incidentally, emotive language that is attempting to be descriptive can sometimes seem to be describing something yet comes across as only describing the speaker's attitude towards it (Hansson, 1996). Another study by Alberts (1988) found that when dealing with problems, dissatisfied couples were more likely to use emotive comments, and that satisfied partners were found to be describing the other person's behaviour in neutral terms. Thus, some research shows that communication climate can be negatively influenced by the use of emotive language, along with messages that come across as not accepting another person's feelings.

5. Superiority vs. Equality

The fifth type of defensiveness is superiority. This occurs when messages suggest that the speaker is better than everyone else (Adler et al., 2009). Many people do not possess as much skill as others. When messages of superiority come across in these situations, it is likely that feelings of defensiveness will arise and a negative communication climate can result. On the other hand, Gibb's model also shows that those with superior skills might choose to communicate messages of equality instead. Equality creates a positive communication climate where ideas are not shared on the basis of who contributed them but on how constructive they are (Adler et al., 2009). An example of

this could be when someone holds more knowledge than everyone else. Treating other people with equality helps to build a positive communication climate which promotes the exchange of creative ideas.

Another way that superiority might occur is through one person who is advising others. To demonstrate, research suggests that unsolicited advice threatens the presenting self of the recipient (Goldsmith, 2000). When confronted with a distressed person, one of the most common reactions from the listener is to advise (Notarius and Herrick, 1988). However, many researchers have found that advice is most accepted under two conditions. First, when it has been requested, and second, when the adviser seems concerned with respecting the face saving needs of the recipient (Goldsmith, 2000; Goldsmith & MacGeorge, 2000; MacGeorge et al., 2002). Furthermore, another study done by Jake Harwood, Howard Giles, et al. (1993) discussed the impact of messages of superiority on communication climate. Their research shows that patronizing messages, defined as treating others in a condescending manner, irritated receivers in their study on response strategies in a community setting, with respondents ranging in age from young students to senior citizens. The group of respondents in their study viewed patronizing talk from a negative communication climate perspective. Any message that suggests one person is better than another is likely to arouse feelings of defensiveness in the receiver. The authors explain that when people communicate with others who possess less talent or knowledge, they should avoid conveying an attitude of superiority. Their findings are consistent with Gibb, who explains that those who have superior skills and talents have a choice in expressing messages of equality rather than superiority.

6. Certainty vs. Provisionalism

The final type of defensive talk is certainty. Gibb notes that people who hold their opinions with certainty while disregarding the views of others tend to communicate a lack of interest in what others hold to be important (Adler et al., 2009). The person who sends messages that they are right and no other information is needed and that their way is the only way is communicating certainty. This approach can have a negative impact on communication climate when others interpret such certainty as offensive and thus they respond defensively. In contrast to certainty is provisionalism. This is characterized by those who have strong opinions yet are still able to acknowledge different points of view from others. Provisionalism might appear in the choice of words people use. In other words, while certainty uses the terms can't, never and always, provisionalism uses perhaps, maybe and possibly. One study reported that provisional word choice enhances communication climate (Winer & Majors, 1981) and these authors concluded that discussion benefits from such open-minded messages.

Research Rationale

As this thesis has discussed, communication climates are determined by the degree to which people see themselves as valued. The term confirming communication is used to describe messages that convey such valuing. There are many benefits to confirming messages that create a positive, supportive communication climate. For example, a confirming, supportive climate is very important in marriage, and has been noted to be the best predictor of marital satisfaction (Clarke, 1973; Veroff et al., 1998). Specifically, research has found that satisfied couples have a 5:1 ratio of positive to negative statements, whereas the ratio for partners who are dissatisfied in their relationship is 1:1 (Gottman, 2003). In contrast to confirmation, disconfirming

communication displays a lack of value towards the other. There are many negative effects that result from disconfirming messages and these have a strong impact on communication climate. As an illustration, children who lack confirmation suffer more intense feelings of anxiety, depression, grief, jealousy, and loneliness, and have higher incidences of mental and physical illness, as well as a broad range of behavioural problems such as criminality and suicide (Osterman, 2000). Also, victims of hateful speech can experience the same long term consequences that follow other traumas, such as feeling dazed, shocked, ill, and angry (Leets, 2002). Regardless, it is important to note that whether a message is confirming or disconfirming, how such messages will be perceived throughout the conversation is in “the eye of the beholder” (Vangelisti & Crumley, 1998).

Understanding communication climate patterns helps explain how communication climates can effectively build a given relationship or destroy it. While there is significant research supporting Gibb’s (1961) model of defensive and supportive communication, less research has been done to identify the impact of such talk on the relationship between verbal aggressiveness and communication climate. The verbally aggressive type of climate pattern is created from one attack leading to another until eventually a negative communication climate is created in the relationship. Furthermore, the most fundamental effect of verbal aggression is self-concept damage. An interpersonal approach to communication climate is useful in describing the impact of messages on people’s self-worth. The effects of defensive and supportive messages on communication climate provide a strong justification for studying verbal aggression, in order to allow for greater control by those who receive such messages over its destructive impact on relationships.

This chapter has explored the theoretical framework to understand those factors that create communication climate as well as noting the approaches and researchers who have addressed the topic of verbal aggressiveness, and the influence that defensive and supportive communication has on interpersonal climate.

In other words, the current study investigates the problematic effects of verbal aggressiveness along with the potential solution given by Gibb's (1961) work. The information obtained will provide interpersonal communication researchers with additional insights regarding how a supportive style of talk creates a positive communication climate, which in turn, can limit the effects of verbal aggressiveness through talk that is characterized by a problem solving approach present throughout Gibb's list of supportive categories. Such dialogue gives useful examples of how to communicate more effectively with others and provide more choice in behaviour than many of the automatic responses that stem from more defensive, controlling types of talk. This thesis seeks to explore the impact of different types of talk on perceptions of communication climate. Thus, the following chapter will discuss the methodology designed to answer the research question: What is the relationship between defensive and supportive talk, verbal aggressiveness and communication climate?

Chapter Three: Research Design and Methodology

This chapter will outline the research design implemented for the current study. In doing so, it will offer a justification for the mixed-method approach that was selected in order to investigate the central research question. This section will also summarize the quantitative and qualitative measures employed in this study, including the criteria used to determine the use of a mixed-method strategy, and the reasons for rejecting other research method options.

Methodology Rationale

As mentioned earlier, the current study investigates the problematic effects of verbal aggressiveness along with the potential contribution of Gibb's (1961) work, whereby the perception of communication climates may be influenced by the use of different types of talk. Thus, the undertaking of such empirical research involved operationalizing the research question in order to explore the relationship between defensive and supportive talk, verbal aggressiveness and communication climate.

For this specific project, the research design involved a combination of approaches through the use of two questionnaires and a problem solving exercise which generated qualitative conversational data. Three hypotheses were proposed: first, that when two people who both scored high on verbal aggressiveness completed the problem solving exercise, the conversation during the exercise would be characterized by a defensive type of talk, and the partners would perceive a more negative communication climate. The second hypothesis was that when both people scored low on verbal aggressiveness, the conversation exhibited in the exercise would be characterized by a supportive type of talk, and they would perceive a more positive communication climate.

Finally, those conversations that included a mix of both high and low scores might have a more neutral communication climate.

Therefore, this thesis used a combination of quantitative and qualitative analysis through its mixed-method research design. This strategy was employed given the amount of time and other resource constraints that limited the gathering of data. The mixed-method approach was also selected as a feasible and practical method of selecting and overcoming limitations in terms of the quality of both quantitative and qualitative data that was gathered.

Procedures

In order to understand the relationship between defensive and supportive talk, verbal aggressiveness and communication climate, a mix of quantitative and qualitative measures were used. Ethical approval was provided for this study by the University of Ottawa Social Sciences and Humanities Research Ethics Board.

Recruitment

In order to recruit participants for this study, the researcher presented the study to students in two large introductory classes (Introduction to Media Studies courses (CMN 1160)) at the University of Ottawa in the fall semester of 2010. The use of convenience sampling was chosen as this course provides an environment conducive to the study and is very convenient to access through the Department of Communication. After explaining the research project to the class, the researcher invited students to visit SurveyMonkey.com to complete the online Verbal Aggressiveness Scale (see Appendix 1). As well, students were invited to indicate online whether they would be willing to participate in the follow up problem solving exercise.

The Verbal Aggressiveness Scale was administered as a way to organize groups for the problem solving exercises, rather than a scale strictly used for analysis.

The scale was developed by Infante and Wigley (1986) as an instrument for measuring verbal aggression. The researchers note that the scale distinguishes a “preference for verbally aggressive messages from preferences for other forms of communication” (p. 63). In other words, the scale measures how people try to obtain compliance from others. The scale used in this particular study was adapted from a 20-item scale developed by Infante and Wigley (1986) and factor analyzed by Beatty, Rudd, and Valencic (1999). Ten items were written according to the conceptualization of verbal aggressiveness as a trait to attack the self-concept of other people instead of their positions on topics of communication. The rating format was a five point linear scale with “almost never true” and “almost always true” endpoints. To compute the verbal aggressiveness score, all 10 of the responses must be added up together. A total score of 30 would indicate the neutral point, and that the person is not especially aggressive, but not especially confirming of the other. If the score is above 35, one would be considered moderately aggressive. If over 40, one would be considered very aggressive. If one scores below the neutral point, they would be considered less verbally aggressive and more confirming when interacting with others.

The validity of the instrument was demonstrated through studies by Infante and Wigley (1986), using different sample sizes of students enrolled in introductory level communication courses. To summarize, the results of their studies supported assumptions about how verbal aggressiveness would relate to message preferences in different interpersonal situations. In the current study, the scale was useful in grouping together the

dyads for gathering further data in the problem solving exercise and Communication Climate Inventory that followed.

Sample

A total of 74 students completed the online survey and, of these, 38 students indicated that they would be willing to participate in the problem solving exercise. All together, the convenience sampling process resulted in 28 female and 10 male participants. The age of the participants ranged from 17 to 29, with an average age of 19. The number of years in their university program ranged from 26 participants in first year, 9 participants in second year, 2 participants in third year, and finally one participant in their fourth year of study. Based on their score on the Verbal Aggressiveness Scale, participants ($n = 38$) were assigned by the researcher to one of three problem solving conditions, based on whether they measured high (score greater than 30), low (score less than 30) or neutral (score of 30) on this scale. The researcher then contacted the 38 participants by email to schedule their problem solving exercise at their convenience.

Data gathering

Those participants who agreed to partake in the problem solving exercise ($n = 38$) presented themselves at a communication laboratory at the University of Ottawa. After explaining the purpose of the study and asking them to sign the consent form, the researcher and an undergraduate research assistant placed the participants into pre-determined pairs ($n = 19$) based on their Verbal Aggressiveness Scale scores as described above. Specifically, the dyads were organized into three different conditions: one condition was composed of dyads that both had scored high on the Verbal Aggressiveness Scale ($n = 10$), a second condition was composed of dyads that both

scored low (n= 10), and a third condition was a dyad composed of one member who had a high score and one member who had a low score (n= 18). Once seated, participants were asked to follow written instructions in order to negotiate and solve a problem together (see Appendix 2) using their natural language style. The problem solving exercise, called The Winter Survival Game, asked participants to read a scenario in which they imagined that they had been in a plane crash in Northern Canada during winter and must rank order a list of items found after the crash in terms of their importance to their survival. To rank the list items, discussions between the members of the dyad were limited to a 10-minute maximum length. The interactions were tape-recorded and these recordings were transcribed verbatim.

A research assistant helped with the problem solving exercise by setting up and organizing the dyads as they arrived, such as handing out consent forms for participants to complete, and confirming the proper execution of the Communication Climate Inventory by each dyad after the problem solving exercise ended. Audio-taping began only after written consent was gained from each participant to permit the exercise to be recorded. The research assistant who handed out the consent form (see Appendix 4) to each participant was also useful in that each participant was assured their privacy and anonymity would not be put at risk by participating in the study, as neither their names nor their initials would be used to identify them in any publications. Further, the form explained that, as part of the research protocol, only the researcher and Thesis Supervisor would have access to the records. The participants were also made aware that this study had received ethical clearance from the Research Ethics Board at the University of Ottawa. Additionally, the form explained that participation in the study was entirely

voluntary and participants could refuse to answer any specific questions or withdraw at any time. Once the problem solving exercise discussions ended, participants were debriefed about the correct rankings and rationale (as provided by experts in outdoor survival) and then asked to complete an online survey to measure their perception of the interpersonal communication climate of their interaction, called the Communication Climate Inventory at one of the computers in the communication lab.

Quantitative Measures

A quantitative approach to the study was used to explore the relationship between defensive and supportive talk, verbal aggressiveness and communication climate. This project investigated the influence of supportive and defensive communication on climate and measured perceptions of communication climate using the Communication Climate Inventory (see Appendix 3). This instrument was developed by Costigan and Schmeidler (1984) and has been used by many organizations in order to help with the diagnosis and correction of non-productive communication climates between a supervisor and subordinate at work. The questionnaire operationalizes Gibb's twelve factors for assessing supportive and defensive communication behaviours. Thirty-six questions are presented in a Likert-style format and in this case, were administered to each partner who participated in the dyadic problem solving exercise that followed from the Verbal Aggressiveness Scale. The scores of the first 18 questions indicated the degree to which the dyadic relationship of each partner reflected the six dimensions of a supportive communication climate. The following 18 questions indicated the degree to which the dyadic relationship of each partner reflected the six dimensions of a defensive communication climate. Thus, the Communication Climate Inventory was used to

measure the interpersonal relationship of each dyad and sum up the communication climate that resulted from the problem solving setting. In addition, the instrument was used to assess the communication climate between a high, low or mixed dyad score that was grouped based on results of the participants of the Verbal Aggressiveness Scale.

Costigan and Schmeidler note that the odd-numbered questions describe a defensive climate while the even-numbered questions describe a supportive climate. However, in this case the original wording of certain questions was altered to reflect the nature of the problem solving exercise. In order to assess the validity of the adapted instrument, three experts in the University of Ottawa's Department of Communication aided in the review, adaptation, and validity checking of the changes made to certain words. The perceived level of defensive and supportive talk on communication climate was assessed with questions such as the following: "My partner treated me with respect" (supportive) and "My partner criticized my ideas without allowing me to explain" (defensive). The online questionnaire consisted of questions using a 5-point metric scaled from 1 (almost never) to 5 (almost always). To sum up, participants in each dyad evaluated the communication behaviours of their partner immediately following the problem solving interaction and the descriptive results of these questions are contained in the following chapter for analysis.

Qualitative Measures

This study used qualitative research in the form of a problem solving exercise in order to indicate factors which may have influenced the perception of communication climate, either positively or negatively. A qualitative approach was used which relied on content analysis of conversation in order to strengthen the quantitative data and explore

the different types of talk and interaction. The exercise was audio-recorded and transcribed verbatim. The data was analyzed thematically and is presented in the following chapter. Specifically, data that were similar in themes were clustered together under each of Gibb's categories of supportive and defensive talk. The transcripts of each dyad's conversation during the problem solving exercise were coded and analyzed using the computer software NVivo.

A case study approach was used in order to discuss patterns of language revealed during the problem solving exercise. Three case studies present detailed information about each particular dyad chosen to represent the high, low or mixed VAS group, including examples of defensive and supportive talk from the participants themselves. As Robert Yin (2003) notes, the case study is a form of qualitative descriptive research that looks intensely at an individual or small participant pool. Emphasis will be placed on exploration and description, which in addition to the presentation of the quantifiable research data, the goal of these case studies are to offer new variables and questions for further research. The researcher interpreted each dyad's qualitative data through the use of coding, or, that is to say, through systematically searching the data to identify and categorize specific observable actions or characteristics that reflected each of Gibbs' defensive and supportive communication categories. These observable communication actions are the key variables in the case study. Thus, the analysis of data consisted of examining, categorizing, and combining both quantitative and qualitative results to address the three hypotheses of the study.

Furthermore, the speech that was audio recorded and transcribed in each problem solving exercise was coded and labelled as either a defensive or supportive utterance.

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Jack Sidnell (2010) explains that the term utterance in conversation analysis refers to a unit of speech. In phonetic terms, it is a stretch of spoken language that is preceded by silence and followed by silence or a change of speaker. Sidnell notes that phonemes, morphemes and words are all considered to be a segment of the speech sounds that constitute an utterance. The case studies illustrate the type of talk used by each partner in relation to each of Gibb's categories, and the qualitative data from the problem solving exercises was used to analyze which of Gibb's categories influenced the emergent communication climate of each dyad.

In brief, the problem solving exercise was analyzed by the researcher using pre-determined categories that arranged the qualitative data into defensive and supportive utterances in order to gain an understanding of the patterns and themes that emerged. As such, the content analysis of transcripts was useful in examining the frequency with which each of Gibb's categories of defensive and supportive communication were present during the discussion of each dyad, and in order to determine the most prominent factors that may have had an influence on whether the communication resulted in a positive or negative interpersonal climate.

Chapter Four: Results and Discussion

Quantitative Data

The communication climate in human relationships is a key factor in the effectiveness of solving problems that arise in everyday situations. Those relationships with a supportive environment encourage more participation and an open exchange of information, which leads to a more constructive resolution for interpersonal conflict. In relationships with defensive climates, those involved are more likely to keep their ideas to themselves and make more guarded statements towards the other, thus resulting in a less productive outcome.

As mentioned in the second chapter’s literature review, Gibb (1961) identified six categories of a supportive environment and six categories of a defensive one and noted how relationships are influenced by the communication climate created by those involved. He categorized a supportive climate as one characterized by description, problem orientation, spontaneity, empathy, equality, and provisionalism, and a defensive climate as one characterized by evaluation, control, strategy, neutrality, spontaneity, and certainty. These defensive and supportive categories are paired as opposites, as illustrated below within Table 2, where they are linked to the survey questions from the Communication Climate Inventory (CCI) (Costigan & Schmeidler, 2004).

Table 2: Gibb’s Categories linked to CCI survey questions

Defensive Climate	Supportive Climate
Evaluation: Questions 1, 3, 5	Provisionalism: Questions 2, 4, 6
Control: Questions 7, 9, 11	Empathy: Questions 8, 10, 12
Strategy: Questions 13, 15, 17	Equality: Questions 14, 16, 18

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Neutrality: Questions 19, 21, 23	Spontaneity: Questions 20, 22, 24
Superiority: Questions 15, 27, 29	Problem Orientation: Questions 26, 28, 30
Certainty: Questions 31, 33, 35	Description: Questions 32, 34, 36

The total of the scores from the odd-numbered questions indicated the degree to which the communication climate of each dyad was defensive, and the total scores from the even-numbered questions indicated the degree to which the dyad's relations were supportive. For each dyad's individual category, a total score of 3 to 6 indicated agreement or strong agreement on either the defensive or supportive scales. A total of 12 to 15 indicated disagreement or strong disagreement, and a total of 7 to 11 indicated a neutral or uncertain attitude. The lowest possible overall climate score was 18 on either the defensive or supportive scales, which means that each partner in the dyad strongly agreed with all questions. The highest possible overall score was 90, which means that each partner strongly disagreed with all questions. Both extremes are highly improbable (Costigan & Schmeidler, 2004). Hence, summing up the responses in each category provided the overall score for the type of climate (defensive or supportive), and comparing those two scores provided a rough estimate of the general climate of all the dyads in their high, low or mixed group. The table below was used to provide a way of scoring the communication climate of each dyad (Costigan & Schmeidler, 2004).

Table 3: Defensive and Supportive Scales

Defensive Scale	Supportive Scale
Defensive = score of 18 – 40	Supportive = score of 18 – 40
Defensive to Neutral = score of 41 – 55	Supportive to Neutral = score of 41 – 55

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Neutral to Supportive = score of 56 – 69	Neutral to Defensive = score of 56 – 69
Supportive = score of 70 – 90	Defensive = score of 70 – 90

After both partners in the dyad filled out the questionnaire, obtaining the total score for each of Gibb’s categories along with the total communication climate score of the high, low or mixed group was the most effective method of scoring the inventory. If each partner in the dyad agreed or strongly agreed (a scale of 1 or 2) with the statements measuring a specific category, then that category was deemed to be important in the dyad’s perception of their communication climate. If the partner scored the statement as a 4 or 5 (disagree or strongly disagree), it indicated that the category being measured was not reflected in the dyad’s communication climate. In other words, the CCI was used to measure the communication climate that emerged during the problem solving exercise. The following tables display the quantitative data that can be used to assess each dyad’s perception of the emotional and social tone of the relationship that resulted from the problem solving exercise.

High VAS Dyad Results

This section will display the results of all three of the VAS group’s overall CCI scores by having each dyad’s score on the defensive and supportive scales presented in tables 4 to 9 below, along with the mean of each of the high, low or mixed VAS groups. Table 4 displays the results of the high VAS group and their overall scores on the Defensive Scale of the Communication Climate Inventory. The score for all the dyads in this group was 71.6. All five dyad scores in the high VAS group are shown, and the total scores of each partner in the dyad are listed in the two columns above the score for each

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dyad. The first dyad (HD1) had the lowest score (65.5), with both partners perceiving the most defensive communication climate compared to all other dyads in the high VAS group. As a reminder, the lower the score is on this table, the more defensive is the perception of communication climate.

Table 4

High VAS Dyad Group (n=5)										
Subtotals for Defensive Scores										
	HD1		HD2		HD3		HD4		HD5	
Total Score	66	65	79	74	62	71	78	70	79	72
Dyad Score	65.5		76.5		66.5		74.0		75.5	
Group Mean	71.6									

Table 5 displays the results of the high VAS group with their scores on the Supportive Scale of the Communication Climate Inventory. The total score for all the dyads in this group resulted in a mean of 33.5. The high VAS group perceived a more negative communication climate than the low VAS group in both the defensive and supportive scales, as Tables 6 and 7 shows. As a reminder, the lower the score is on this table, the more supportive is the perception of the communication climate.

Table 5

High VAS Dyad Group (n=5)										
Subtotals for Supportive Scores										
	HD1		HD2		HD3		HD4		HD5	
Total Score	25	38	35	36	40	39	36	27	24	35
Dyad Score	31.5		35.5		39.5		31.5		29.5	
Group Mean	33.5									

Low VAS Dyad Results

Table 6 below displays the results of the low VAS grouping along with their scores on the Defensive Scale of the Communication Climate Inventory. The group mean for all the dyads was 78.5. This group had the highest mean, which makes it the least defensive of all the groups and thus the perception of the communication climate was most supportive. As a reminder, the lower the score is on this table, the more defensive is the perception of the climate.

Table 6

Low VAS Dyad Group (n=5)										
Subtotals for Defensive Scores										
	LD1		LD2		LD3		LD4		LD5	
Total Score	74	71	81	88	73	74	73	85	81	85
Dyad Score	72.5		84.5		73.5		79.0		83.0	
Group Mean	78.5									

Table 7 below displays the results of the low VAS group and their scores on the Supportive Scale of the Communication Climate Inventory. The total score for all the dyads in this group resulted in a mean of 32.4. The fifth dyad (LD5) had the lowest score (27.5) on the Supportive Scale, and thus this dyad was most supportive and perceived a more positive communication climate than all other dyads in the low VAS group. Also, the group mean of 32.4 was the lowest out of all the VAS groups, showing that the low group was more supportive than the rest. As a reminder, the lower the score is on this table, the more supportive the perception of the climate.

Table 7

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Low VAS Dyad Group (n=5)										
Subtotals for Supportive Scores										
	LD1		LD2		LD3		LD4		LD5	
Total Score	29	33	43	26	28	39	38	33	24	31
Dyad Score	31.0		34.5		33.5		35.5		27.5	
Group Mean	32.4									

Mixed VAS Dyad Results

Table 8 displays the results of the mixed VAS grouping on the Defensive Scale of the Communication Climate Inventory. The total mean for all the dyads in this group was a score of 67.05, which was the most defensive of all the groups. The fifth dyad (MD5) had the lowest score (43.0) with both partners perceiving a much more defensive communication climate than not only all the other dyads in the mixed VAS group, but of all other dyads who participated in the problem solving exercise. As a reminder, the lower the score is on this table, the more defensive the perception of the climate.

Table 8

Mixed VAS Dyad Group (n=9)																		
Subtotals for Defensive Scores																		
	MD1		MD2		MD3		MD4		MD5		MD6		MD7		MD8		MD9	
Total Score	68	58	65	71	77	58	75	69	48	38	72	68	83	80	75	62	70	70
Dyad Score	63.0		68.0		67.5		72.0		43.0		70.0		81.5		68.5		70.0	
Group Mean	67.05																	

Finally, in Table 9 the results of the mixed VAS group on the Supportive Scale of the Communication Climate Inventory are shown. The total score for all the dyads resulted in a group mean of 37.5, which was the least supportive of all the groups. Again,

the fifth dyad (MD5) had the highest score (50) on the Supportive Scale, which is the least supportive of not just this group, but out of all the dyads that partook in this study. That is to say, this dyad perceived the most defensive and negative communication climate than the others dyads in all three of the VAS groups. As a reminder, the lower the score is on this table, the more supportive the perception of the climate.

Table 9

Mixed VAS Dyad Group (n=9)																		
Subtotals for Supportive Scores																		
	MD1		MD2		MD3		MD4		MD5		MD6		MD7		MD8		MD9	
Total Score	38	24	41	41	42	37	35	35	50	50	41	43	29	34	28	42	38	28
Dyad Score	31.0		41.0		39.5		35.0		50.0		42.0		31.5		35.0		33.0	
Group Mean	37.5																	

Thus, the quantitative data from both the Defensive and Supportive Scales show that the mean of the mixed group resulted in those dyads as the least supportive compared to the others. The high VAS group was less supportive and more defensive than the low VAS group or, put another way, the low VAS group was the most supportive compared to the high and mixed VAS groups. Interestingly, the mixed group had the most negative communication climate scores compared to the other two groups, and these results will be discussed in the following section.

Quantitative Data Discussion

This section will discuss possible explanations for the communication climate results that occurred in each of the three VAS groupings.

Hypothesis 1. The first hypothesis was that when two people who both scored high on verbal aggressiveness completed the exercise, the conversation during the exercise would be characterized by a more defensive type of talk and they would perceive a negative communication climate. This prediction was not supported by the quantitative data which revealed that although the high VAS group was more defensive than the low VAS group, it was the mixed group that resulted in a more negative climate as displayed in the tables above.

Given these facts, the first explanation of how this might have occurred is grounded in a discussion of complementary communication patterns. The second explanation relates to the first and is grounded in what is referred to as symmetrical communication. Partners in interpersonal relationships, as well as impersonal ones, can use two different styles of talk to manage their problems with others (Adler et al., 2009). In relationships with a complementary conflict style, the partners use “different but mutually reinforcing behaviours” (p. 331). According to Adler et al., this can lead to a communication climate pattern that spirals into a more defensive and aggressive climate for those involved due to a cycle of increasing hostility and isolation. Accordingly, research shows that a complementary style of talk can occur frequently in many unhappy heterosexual marriages and that when one partner, most commonly the wife, addresses the problem directly, the other partner, usually the husband, withdraws from the problem (Krokoff, 1990; Sillars et al., 1984). As a result, their communication climate pattern leads to a spiral of increasing defensiveness since each partner approaches the problem with a different -- but complementary -- communication style, creating a more negative climate in the relationship.

Complementary styles are not the only type of communication patterns that can have a negative impact on climate. Interpersonal relationships can also be influenced by a symmetrical communication style that is also defensive. A symmetrical conflict style is seen when both partners use the same communication behaviours (Adler et al., 2009). This can lead to both defensive and supportive climate patterns that are created by either an escalatory or de-escalatory type of spiral, which in turn leads to positive or negative outcomes for the relational climate. In other words, a symmetrical conflict style is when both people use the same strategy in their behaviour. If both partners respond to one another with matching aggressiveness, one response can trigger another and this can lead to an escalatory aggressive spiral. On the other hand, if both partners withdraw from each other instead of discussing their problems, a de-escalatory spiral occurs which might result in a lack of communication that ultimately ends the relationship. Thus, the communication pattern which both partners in the dyad created through their talk influenced their perception of communication climate. Despite placing two partners together in the problem solving exercise who both had high VAS scores, this group did not result in the most negative climate when compared to the participants in the mixed group.

Hypothesis 2. The second hypothesis was that when both people scored low on verbal aggressiveness, the conversation exhibited in the exercise would be characterized by a more supportive type of talk and they would perceive a positive communication climate. This hypothesis was supported by the CCI data in that the low VAS group was the most supportive out of all three, and the high VAS group's results were more defensive than the low VAS group. This makes sense because although the same problem

solving exercise was used for each of the dyads, the communication patterns of the partners involved can spiral into much different results depending on whether the dyad's communication was symmetrical or complementary. According to Adler et al. (2009), both complementary and symmetrical behaviour can produce positive communication climates as well as negative ones. If the complementary behaviours are positive, then a positive spiral results, and the problem has a much better chance of being resolved. Ridley and colleagues (2001), in their study of married couples' conflict responses, report that couples using symmetrical styles had a more positive communication climate in their marriage than any other type of couples in their study. Symmetrical styles can create a positive climate because "a constructive symmetry occurs when both people communicate assertively, listen to one another's concerns, and work together to resolve them" (Adler et al., 2009, p. 331). Indeed, there are many factors at play when communicating face to face with others and there is more than one way to respond when resolving a problem with another person (Canary & Cupach, 1988; Canary & Spitzberg, 1987). Adler et al. note that assertive tactics, such as asking for information and considering alternative solutions, are "more preferable to aggressive tactics such as shouting or blaming" (2009, p. 332). What's more, a personal conflict style is not necessarily a personality trait that will arise in every situation. The research of Wilmot and Hocker (2001) suggests that roughly 50 percent of the population change their style from one situation to another. Such behavioural flexibility can be seen in more competent communicators who influence climates positively when solving problems with others. The qualitative analysis in the second half of this chapter examines the types of talk that

are present during the problem solving exercise and will be useful for demonstrating how supportive behaviours had a positive influence on communication climate.

Hypothesis 3. The third hypothesis was that those conversations in the problem solving exercise which included a mix of both high and low VAS scores would result in a more neutral communication climate. Interestingly, in contrast to the findings of studies cited in the literature review of Chapter 2, the mixed group reported the most defensive and least supportive scores compared to the high and low VAS group scores and, furthermore, resulted in the most negative climate of all three groups. Possible explanations as to why this occurred can be found in the literature on communication climate patterns. The mixed group's more negative scores might have been a result of complementary communication climate patterns. Could it be that the reason why the mixed group had the most negative climate was because partners with high VAS scores (and thus more defensive) were paired with partners who had low VAS scores and were more supportive, and this led to communication behaviours that were complementary in nature?

Each individual's communication style influenced the other's type of talk, which may provide an explanation for the results of the CCI scores. Although the style each partner used when solving the problem was important, communication climate patterns were not the only factor that determined how the problem solving exercise was completed. That is to say, interpersonal conflict is relational and can be determined by the way the people involved are interacting with each other (Wilmot and Hocker, 2001; Knapp et. al., 1988). The style of talk used in the problem solving exercise was not simply a decision made by each partner in the dyad, but instead depended on how the

partners interacted together. Research by Burggraf and Sillars (1987) support this notion that the mutual influence both partners have on each other affects their ability in resolving conflict in the style of talk that comes most easily and naturally to them. The authors write that when two or more people are in a relationship, they develop their own relational conflict style, which can be defined as a pattern of managing problems with each other that repeats itself over time. Thus, some relational styles of talk are constructive, whereas others can be destructive to the relationship.

The communication pattern that both partners in the dyads created through their talk might have influenced the perception of communication climate. Despite the hypotheses stated here, placing two partners together in the problem solving exercise who both had high VAS scores did not result in the most negative climate when compared to the participants in the mixed group. It may seem then, that the complementary or symmetrical style of talk that was used in the mixed group had an influence on their communication climate patterns, and that this spiralled into more defensive and negative outcomes. The goal of this research project is not simply to predict and confirm that the communication of certain dyads would result in more positive or negative scores, but rather to acknowledge other influential factors that this thesis can help illustrate through an examination of types of talk and their impact on perceptions of communication climate. Thus, while there is no single factor that results in a specific communication climate every time, the goal of this discussion is to examine what other factors are present, such as the different styles of talk which impacted the communication climate.

What might it be about the style of communication that was used which resulted in the mixed group having the most negative communication climate results? The

quantitative data does show that the low VAS group was most supportive of all three, yet the high VAS group was more supportive than the mixed group. The following qualitative research section will use three representative case studies in order to discuss specific examples that give possible explanations for the quantitative data results. The recorded audio transcriptions of the problem solving exercise will aid in this analysis and discussion of possible reasons for the supportiveness of the low VAS grouping, the less supportive results of the high VAS group, and finally the more defensive outcomes for the mixed VAS group.

Qualitative Data

This section will review the study's key findings and place them in the context of both the research question and the literature examined in Chapter 2. It will include three case studies in order to discuss each dyad's patterns of language revealed during the problem solving exercise. Moreover, the defensive and supportive communication used by each of the high, low and mixed VAS dyads will be illustrated through examples gathered from the transcribed audio recordings. In other words, the following case studies present detailed information about each particular dyad chosen to represent the high, low or mixed VAS group, including examples of defensive and supportive talk from the participants themselves.

The case studies were chosen based on each of the dyad's CCI scores. This was accomplished by distinguishing the high VAS group's most defensive dyad on the Defensive Scale for that group, the low VAS group's most supportive dyad on the Supportive Scale, and the mixed VAS group's dyad that was the most defensive on the Defensive Scale, and the least supportive on the Supportive Scale compared to all other

dyads in the study. The transcripts of the problem solving exercise of the three representative dyads were examined to identify which specific defensive and supportive categories had more of an influence on the participants' perception of communication climate than others.

Case Study One: High VAS Dyad

The first case study explores the dyad from the high VAS group that was labelled in the quantitative data section as HD1. This dyad scored the highest on the Defensive Scale and was the most defensive for that group. Random names were given to each participant in order to maintain their confidentiality; in this case the participants were both female and will be called Mary and Samantha. The dyad was characterized by numerous defensive utterances which, it can be concluded, had an influence on each of the partners' perception of communication climate created during their conversation. The examples below illustrate specific defensive language patterns used by each of the participants and which reflect the categories of defensive communication as defined by Gibb in Chapter 2. While solving the problem exercise, the dyad used a total of seventy-two utterances. Of these, thirty-six utterances were defensive, and another thirty-six were supportive.

The first example below explores the defensive language used by each partner at the onset of their dialogue, which had an influence on their perception of communication climate through the defensive categories of Certainty and Control. Here, the participants are reading a scenario in which they must imagine that they have been in a plane crash in Northern Canada and must rank order a list of items they have found in terms of their importance to their survival.

Mary: Okay, well I already know what the small axe should be for.

Samantha: Yeah, okay, well the small axe should be used in case you need to cut down stuff to cross over the creek.

Mary: Wait, you have to fill out...

Samantha: Oh, it's a lighter without the fluid.

Mary: No, but look, you need all of these. You don't pick one.

Samantha: Okay, so what is that? Okay, so extra...

Mary: Okay, like an axe for sure is number one.

Samantha: You don't need to do that. You don't need to number them.

The first type of defensive talk present in their dialogue is Certainty, which Gibb notes can occur when people hold their opinions in such a way that they are disregarding the views of others. The use of Certainty led to both Mary and Samantha communicating a lack of interest in what their partner believed was important when rank ordering the list of items. Mary started the exercise without leaving her opinions open to discussion ("Okay, well I already know what the small axe should be for"). She is using an approach that can have a negative impact on communication climate if Samantha perceives such certainty as aggressive and then responds defensively. Mary is sending messages to Samantha ("Okay, like an axe for sure in number one") that she is right and no other information is needed, and that her way is the only way in solving the problem.

The second type of defensive talk that appears in the conversation is Control. These kinds of messages are perceived as an attempt to control a person, which can be seen when Mary imposes a solution on Samantha ("Wait, you have to fill out...") and then offers little regard for Samantha's opinion or interest in which items she holds

important for solving the problem (“You don’t pick one”). The use of Control by Mary creates further defensive language during the exercise and this is seen in the following two examples of this case study. Both Mary and Samantha act in controlling ways by giving their opinion while interrupting and ignoring the opinion of their partner. The impact that controlling behaviour has on the perception of communication climate triggers further defensiveness by both parties. Moving along, both partners continue to use this approach, which leads into a negative spiral that can be seen in the following example.

This second example illustrates how their conversation continues using the categories of Control and Certainty, which creates a negative communication spiral and further defensiveness for both parties.

Mary: List the twelve items in order of importance.

Samantha: Okay so, number two for the, no, no, because you already have warmth here. This, it gives you energy, a spur of energy, so you are going to need energy to work harder.

Mary: Yeah, I still think that we should put shirt and pants second.

Samantha: Second? But like you’re already keeping warm with the fire. Then, you can put it third.

Mary: This is second.

Samantha: That’s second, that’s third, then fourth put the t-shirt. So now you’re warm. Then now, you need, do you think you need a compass though to go around the woods?

Mary: This is so useless...

Samantha: Oh and you need water. You need water. So you already need that to cut down the trees.

Here, the use of Control by Mary leads to similar defensive behaviour from Samantha. The messages that led to their perception of communication climate reflected Certainty and Control, which occurred when each partner perceived the other as consistently directing her in an authoritarian manner, and when each partner attempted to change the other's opinion without allowing her to be heard. For example, Samantha goes ahead and ranks the items with little regard for Mary's opinion ("That's second, that's third, then fourth put the t-shirt"), and Mary responds negatively ("This is so useless"), which further escalates into a more defensive and negative spiral that is shown in the third example.

Samantha: What about the newspaper?

Mary: No.

Samantha: Oh my god. You're crazy!

Mary: This.

Samantha: Actually, no. Listen. We need to bring the gun with us to go find the water. If there's a bear, you need to kill the bear.

Mary: And then put this as number eight.

Samantha: Yeah, because of bear attacks. What if there is like tigers?

Mary: No, no. We're in Northern Canada. Okay.

Samantha: So what if there is like wolves or something? Okay, and then...

Mary: This. Number nine. Number ten as the newspapers.

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Samantha: Yeah, well like I think we need to restart because look, newspaper to start up the fire, you need newspaper. You don't just use a huge piece of wood.

Mary: I guess.

Samantha: Oh my god. Then we have to restart.

Mary: We're retarded. No, we'll just do this. Look. We'll do number two.

Number one, and then we'll just number everything one down right?

Samantha: Whatever. And then, I don't even know what that is.

Here we can see that a defensive communication pattern was created that led to name calling by both parties through language such as "you're crazy" and "we're retarded". Two other defensive categories escalate into a negative pattern, through the use of Evaluation, such as "you messages" and name calling, and then ending with Neutrality, in which Mary and Samantha used language such as "I guess" and "Whatever". The categories of Control and Certainty also continue throughout the conversation, leading both spiralling into defensiveness.

The third type of defensive talk noted in the above example is the use of Evaluation. Gibb explains that an evaluative message judges the other person, which occurs through the name calling of both partners. The "you" messages that come from Samantha are actually judging Mary rather than describing Samantha's own thoughts and feelings around solving the problem. This judgment is expressed in the kinds of defense arousing "you" messages from Samantha ("you're crazy") and that trigger a negative response from Mary ("we're retarded"). That is to say, the dyad was influenced by Evaluation in that they perceived their partner as being critical and judgmental while not accepting their explanations for what items they felt were most important.

Finally, Neutrality is the fourth type of defensiveness to occur in this case study. A word that is synonymous to neutrality is indifference, which can be seen in the language used by both parties after Mary's statement "this is useless" in the first example. In other words, this dyad used defensive language that relates to the categories of Certainty, Control, Evaluation and Neutrality. Both Mary and Samantha used language that offered minimal personal support for the other and that expressed their lack of interest in completing the rest of the exercise. Indeed, this dyad's low scores on the Defensive Scale reflect that both partners had a more negative perception of their communication climate than other dyads in their group and this perception is likely the result of their use of defensive talk in their conversation.

Case Study Two: Low VAS Dyad

The second case study examines the dyad chosen from the low VAS group that was noted in the quantitative section as LD5. This dyad scored the lowest on the Supportive Scale, and was the most supportive dyad not only of its own group, but of all the other dyads who participated in the study. The names Kathy and Stephanie were given to the participants in this dyad, who were again both female. The dyad was characterized by many supportive utterances that provide examples of the type of talk that creates a positive perception of communication climate. The following examples illustrate numerous supportive utterances that were present throughout their dialogue and that relate to Gibb's categories of supportive communication. The total number of utterances that were exchanged during the completion of the problem solving exercise was one hundred and sixteen. There were one hundred and thirteen supportive utterances

from both parties, which means only three defensive utterances occurred in the conversation.

In contrast to the previous case study, which was an exploration of the defensive language used in solving the problem exercise, this case study was dominated by four supportive categories, which directly oppose the four dominant categories that appeared in the previous high VAS dyad's talk. The four defensive behaviours in the last case study, Evaluation, Control, Neutrality, and Certainty, are in opposition to the low VAS dyad's use of talk that was characterized by the supportive categories of Description, Problem Orientation, Empathy and Provisionalism. The first example below illustrates the specific language of these four supportive categories.

Kathy: Okay, so do you want to start kind of ordering these?

Stephanie: Yeah, let's start a list. Okay, why don't we just, so we need, well do we need the compass because do we know where we're going in the first place?

Kathy: Well, it says there's a town 20 miles away.

Stephanie: Oh, that's a good point.

Kathy: So like since we have this map, then maybe the compass might be kind of useful.

Stephanie: Yeah, at least the compass for sure, because I don't really know where this is.

Kathy: Yeah, okay, so the compass.

Stephanie: Yeah, okay, the compass for sure.

Kathy: I feel like an axe would be good too.

Stephanie: Definitely, definitely. And then the pistol would be good because you could get meat, assuming there's meat available.

Description was present in Stephanie's usage of "I" messages ("I don't really know where this is) and "we" messages ("we just, so we need, well do we need the compass because do we know where we're going in the first place?"). This descriptive language was a way for Stephanie to offer her ideas on certain items without judgment. Such messages allowed her to focus on ideas and behaviours that can be changed rather than on personal characteristics that cannot. Both partners' descriptive messages were often expressed in the form of "I" and "we" language that were more likely to create a positive communication climate than defensive "you" messages.

The second supportive category of Problem Orientation appeared in Kathy's language at the very start of this example ("Okay, so do you want to start kind of ordering these?"). Kathy put a focus on finding solutions which allowed for collaboration and positive feedback of "Yeah, let's start a list" from Stephanie. Their orientation to the problem created a positive influence on their perception of communication climate because both partners demonstrated a willingness to satisfy each other's needs while trying to complete the exercise. Again, the category of problem orientation was often seen by the use of "I" and "we" language, such as "I don't really know" and "do we know", which demonstrated the partners were not just focused on being right but rather on how to solve the problem effectively. Such language implied that the problem solving exercise was of equal concern and responsibility to both partners. Indeed, their supportive "I" and "we" messages were a useful way to build a more positive communication climate.

Third, the category Empathy is displayed in language such as “I feel like an axe would be good too”. Kathy used many emotive comments throughout the exercise, and effectively expressed her feelings to Stephanie on many items that were chosen. Both parties were receptive of each other’s feelings when emotional messages were spoken. Emphatically putting themselves in each other’s place increased their chances for a positive communication climate, and was useful in reducing defensiveness. Again, the consistent use of “I” language was useful in expressing empathy to the other partner. The numerous “We” messages created language patterns that accepted the other partner’s feelings while making clear their own feelings as well.

Fourthly, the category Provisionalism was present in the language of both Stephanie (“Oh, that’s a good point”) and Kathy (“so since we have this map, then maybe the compass might be kind of useful”). Both partners expressed their opinions yet were still able to acknowledge the different points of view from the other. Provisionalism appeared throughout the dialogue in their choice of words, such as “maybe” and “probably”. Those words that expressed Provisionalism had a positive influence on their perception of communication climate and the example below further illustrates how their conversation benefited from the use of two additional supportive categories, Spontaneity and Equality.

Kathy: Yeah, what about the ball of steel wool? Do you think that’s important though?

Stephanie: Probably.

Kathy: I don’t know how to use it. That’s the thing. I think that it’s important, but I don’t know how to use it.

Stephanie: Well, it would be good to like tie things together and make shelter, right? Like tie wood or something?

Kathy: Oh yeah, that's true.

Spontaneity was apparent in the conversation when both partners were honest with each other instead of using the defensive category Strategy to try and get their way. Kathy consistently asked Stephanie questions on items that she was unsure of, which allowed her to freely express her ideas. Stephanie gave advice and focused on solving the problem rather than on hidden motives that come from what are referred to as strategic questions. Kathy's use of expressing honest and productive questions was useful in lowering any defensiveness that strategic questions might create and which led to a sixth supportive category, that of Equality. Gibb explains that those with superior skills or knowledge who express messages of equality help to create a positive communication climate where ideas are not shared based on who gave them but rather on how productive they are for solving the problem. An example of this occurs in Stephanie's answer to Kathy's question ("well, it would be good to like tie things together and make shelter right? Like tie wood or something?"), and Kathy's positive response ("Oh yeah, that's true"). The dyad was influenced by the perception of Equality, in that both partners did not communicate status to control which items to use in the situation, and there was mutual respect for each other's knowledge on how to use each item. Both partners treated each other with honesty and respect, which helped to build a positive perception of communication climate and promoted the exchange of creative ideas. That is to say the dyad was influenced by Equality, and perceived that their partner did not try to make them feel inferior, therefore respecting their position throughout the problem solving

exercise. In the final example below, all six of Gibb's categories appear which concludes the exercise.

Kathy: I feel like we're running out of time.

Stephanie: I know. Why don't we go with newspaper?

Kathy: Newspaper, we can start a fire with this.

Stephanie: Yeah, that's good, or you can use them to make you warm. So that's seven. Umm, so now we just have to decide.

Kathy: I think Crisco shortening is probably going last.

Stephanie: Okay, yeah, and than air map.

Kathy: Sure.

Stephanie: And than whiskey. So we don't feel the cold.

Kathy: I don't know about the cigarette lighter.

Stephanie: Yeah, I have no idea what that would be good for.

Kathy: Yeah.

Stephanie: So maybe the cigarette lighter is the last one.

Kathy: Yeah.

Stephanie: Twelve, and than family sized chocolate bars?

Kathy: I think that would be better than Crisco. Because that we can eat.

Stephanie: Yeah, good call. So that's ten and then eleven? Yes? Are we good?

Kathy: Yeah, okay I think we got it.

Stephanie: We're good.

Kathy: Alright.

The dialogue was characterized by Description through the use of “I” and “we” messages (“I think that would be better than Crisco. Because that we can eat”). This helped make both partners’ communication much clearer as well as describe situations more fairly. Both Empathy and Problem Orientation are at the very beginning of this example, when Kathy effectively expressed her feelings (“I feel like we’re running out of time”), which evoked an empathic response from Stephanie, who understood and listened to those feelings. Stephanie’s response (“I know, why don’t we go with the newspaper?”) put a focus on the problem as she was open to discussion instead of insisting on her partner’s agreement. Spontaneity followed with Stephanie’s honest expression of her ideas (“Yeah, I have no idea what that would be good for”). This in turn led to Provisionalism through language that focused on more possibilities (“So maybe the cigarette lighter is the last one?”). Finally, the category of Equality ended the problem solving exercise with both partners having an equal say on the last of the items (“Yeah, good call. Are we good?”). In summary, the characteristics that influenced this dyad’s supportive communication climate were that their partner’s messages were honest, that their ideas were expressed freely, that their partner did not try to make them feel inferior or use status to control the situation, and that there was flexibility, creativity and mutual respect from both parties. Indeed, this dyad had the lowest score on the Supportive Scale than any other dyad in the study, and the examples of supportive talk above explain the reasons as to why these partners had the most positive perception of communication climate.

Case Study Three: Mixed VAS Dyad

This final case study explores the dyad from the mixed VAS group that was noted in the quantitative section as MD5. This dyad had the most defensive and least supportive perception of communication climate compared to all other dyads in the study. The names Michael and Rachel were given, as one of the participants was male while the other was female. The dyad was characterized by numerous defensive utterances and these illustrate the defensiveness of both partners as they completed the problem solving exercise together. The examples below highlight the defensive language present in relation to Gibb's categories of defensive communication. The use of defensive messages from one partner had a negative impact on the other, which resulted in a defensive spiral and negative perception towards communication climate. The total number of utterances that were exchanged between the participants of this dyad was one hundred and sixty-two. There were eighty-five defensive utterances, and a total of seventy-seven supportive utterances throughout the exercise.

As discussed in the quantitative section, the dyad's perception of communication climate might have been influenced by a complementary pattern, which escalated into a negative spiral and influenced the language of both partners. The quantitative results show that the high VAS dyad in the first case study scored most defensive on the Defensive Scale for its group, the low VAS dyad scored most supportive on the Supportive Scale than all other dyads in the study, and the mixed VAS dyad scored more defensive and less supportive on both scales than any other dyad that completed the problem solving exercise. The example below illustrates that although there was supportive language present, a negative spiral escalated from the use of a defensive type

of talk by Michael. A complementary communication pattern resulted in more defensive talk that superseded the use of supportive language by Rachel.

Rachel: But I feel like the shelter is not the most important part.

Michael: No, no, no, no, look. First importance is your survival.

Rachel: Yeah I know, but I feel like the shelter is not the most important part, because we're not planning on being there for a long period of time. Our main focus is getting out of there. So like we're not going to make a shelter and live in it, because we're travelling....

Michael: No, no, no, but like a mobile one.

Rachel: I guess. I guess, but like...

Michael: Clothes are definitely the most important, because it's freezing, you're going to need another set of clothes.

Rachel: Yeah, but I wouldn't put it as number one.

Michael: What would you put as number one?

Rachel: Whatever is going to get us out.

Michael: You're taking so much time on this. You should just pick something.

Rachel: Okay I agree, but then I disagree, because how is an extra shirt and pants really going to help? It's not going to keep you that much warmer.

Michael: Okay, wait, wait, wait.

Rachel: If you put on a second t-shirt, how much warmer do you feel?

Michael: Okay, you've wasted like four minutes and haven't even gotten one yet.

A mix of both defensive and supportive messages characterized this dyad.

Interestingly, their complementary communication style reflects the difference in this

mixed dyad's VAS scores, in which there is one high VAS participant and one low VAS participant. This mix between high and low VAS scores might have resulted in a more defensive communication climate during the problem solving exercise. Put another way, a complementary communication pattern was created when one partner began the exercise with more supportive communication (such as "I feel like the shelter is not the most important part"), while the other participant completed the exercise with language that was characteristic of Gibb's defensive categories (for example, "you've wasted like four minutes and haven't even gotten one yet"). This defensive use of language seemed to override supportive talk through many utterances that appear throughout the exercise. A defensive spiral was created from the complementary communication pattern present during the conversation. The next example below explores how the mixed dyad had a more negative perception of communication climate due to participants with high VAS scores and a more defensive type of talk being grouped with participants who had lower VAS scores that used a more supportive type of talk. This defensive and supportive mix created a complementary communication pattern and a defensive spiral that dominated the use of supportive language.

Rachel: I feel like the canvas would be important because that would keep us warm.

Michael: You're in a suit. You're in the snow.

Rachel: I guess. But I, yeah, okay, okay, sure.

Michael: No, axe is definitely in the top five, that's for fire.

Rachel: No, no, I disagree though.

Michael: You disagree about everything.

Further, this mixed VAS dyad was characterized by supportive language from Rachel that was superseded with more defensive language from Michael, which ultimately escalated into a defensive spiral that created the most negative communication climate score out of all the dyads who participated in the study. In other words, Rachel's supportive talk was dominated by Michael's defensive language, which contained many of the categories of defensive communication as defined by Gibb. An escalatory spiral developed and influenced each partner's perception of communication climate as the dialogue progressed. The research on communication climate patterns discussed in this chapter's quantitative section as well as the literature review of Chapter 2 explains why their complementary style of talk could have resulted in a more negative perception of communication climate. Put briefly, once a communication climate is created, the pattern of language continues by being either positive or negative.

As noted by Cahn and Tubbs (1983), negative communication is more likely to be reciprocated than positive, and once aggressiveness is expressed, it usually escalates. A pattern of negative communication developed from defensive utterances spoken by Michael; leading to further defensiveness from Rachel until eventually a defensive communication climate was recreated in the relationship. Their defensive language was characterized by a negative climate spiral that influenced both Michael and Rachel's perception of their presenting self. As the negative spiral escalated, Rachel became more defensive (e.g. "No, no, I disagree though") because of the face-threatening messages used by Michael (e.g. "You disagree about everything"), who instead of focusing on a solution to the problem had put blame on her partner for their unproductiveness. This diverted their attention away from the problem and its potential solution, thus impacting

their perception of communication climate with additional defensive language. That is to say the problem solving exercise spiralled into language reflective of Gibb's categories of defensive communication.

This qualitative analysis has explored the patterns of language that resulted from each of the high, low and mixed dyadic experiences during the problem solving exercise. Using a case study approach, each of the dyads revealed numerous defensive and supportive utterances that influenced their perception of communication climate. This impact was illustrated using Gibb's defensive and supportive categories and through examples gathered from the recorded audio transcriptions. These results are discussed further in the following chapter, which concludes the study by examining the significance of these findings and the implications of such research for the field of interpersonal communication.

Chapter Five: Conclusion

This thesis looked at some specific types of language as described by Gibb (1961) and examined both their value and the problems they can create in the perception of communication climate. The problem solving exercises indicated that each participant's perception of communication climate was not necessarily predicted by their score on the Verbal Aggressiveness Scale. The qualitative data indicated that various factors occurred during the problem solving exercise which may have influenced the perception of communication climate, either positively or negatively, and contribute to each participant's results.

Findings

The words that participants used in this study were shown to either build or destroy the quality of their communication they held with their partners. Whether the participant used a defensive or supportive type of talk was a style of communication that shaped the tone of their relationship. In other words, their language was shown to have an effect on their perceptions and how they regarded each other during the problem solving exercise. Indeed, this research demonstrates that it is the use of language that has an influence on communication climate through the words that shape the complex ways people perceive and understand each other.

The results of this study show that a symmetrical communication pattern of two high VAS partners with mutually defensive behaviours escalated into what the partners perceived as a more negative communication climate. Similarly, the symmetrical communication pattern of two low VAS partners with mutually supportive behaviours resulted in what they perceived as a positive climate. However, when there was a

complementary style in both partners' communication, in which one partner used defensive behaviours and the other used supportive behaviours, the complementary communication pattern seemed to produce an outcome in which the defensive communication dominated over the supportive, thus resulting in a more negative climate than the symmetrical climate pattern. In other words, the defensive behaviours superseded the supportive behaviours in the partners' complementary relationship.

These findings contradict the expected outcomes of the hypotheses stated at the onset of the study and are important as they show that there was more than just defensive and supportive talk at play during the problem solving exercise. That is to say there were communication climate patterns which escalated into positive or negative spirals based on complementary and symmetrical styles of talk. In sum, if the two partners exhibited positive symmetrical styles with supportive behaviours then this resulted in a more positive climate. At the same time, if the two partners each exhibited negative symmetrical styles with defensive behaviours then the outcome seemed to be a more negative climate. In other words, the symmetrical communication style amplified the defensive or supportive behaviours and escalated into more positive or more negative perceptions of the communication climate. Most interestingly, the complementary style that included both a high VAS participant and a low VAS participant resulted in a more negative climate, in that the defensive behaviours dominated the supportive behaviours and a negative climate pattern escalated into defensiveness for both partners.

These findings indicate that in a complementary relationship in which one high VAS partner is matched with a low VAS partner, the partner who uses a defensive style of talk will override the supportive talk and a more negative communication climate will

likely result. Thus, a complementary relationship with defensive talk mixed with supportive talk might have a greater negative influence on communication climate than a symmetrical relationship where both partners use the same style of talk -- even if it is a defensive one. This study's research focused on how type of talk -- whether defensive or supportive -- has a positive or negative impact on perceptions of communication climate. The research revealed that it is the defensive and supportive types of talk that have an influence on the perception of communication climate, and that the VAS scores do not necessarily predict the perception of communication climate.

Limitations

It is important to acknowledge that the conclusions presented in this thesis are based on a small number of participants from the University of Ottawa's Introduction to Communication courses. The characteristics of talk that were illustrated in the problem solving exercises may vary from those of students from a different University program. One will likely find differences across a larger sample size from the University because of differences resulting from socio-demographics such as age, gender or ethnicity. The CCI group scores along with each dyad's qualitative language patterns may have differed somewhat had a larger sample size been used. However, the benefits of the rich qualitative content gathered from transcribing the recorded speech may have also made the data from a smaller sample size much more useful than if the study gathered quantitative data from a larger population. Nevertheless, the researcher does acknowledge that the small sample size is a limitation and that further research could extend this study and attempt to use a larger sample size.

It is also important to note the gender distribution of the study sample and discuss the resultant implications. The sampling process ended in a distribution of 28 female and 10 male participants, and more importantly, 5 of the 6 case study participants were females. Possible reasons that explain this uneven distribution between male and female participants should be acknowledged along with how this uneven distribution might skew study findings. One possible explanation is that there were a larger number of females in the courses in which the researcher recruited students. More importantly, if there had been equal numbers in gender and a better representation from a much larger sample size, there might have been differences in the way both partners in the dyad communicated with each other. For example, the work of Deborah Tannen (1991) investigates how gender has an influence through different types of talk in conversations between men and women, which can be summarized in terms of report vs. rapport talk. The term report talk is used to describe how men tend to speak to others in terms of their position on a subject and to see who is in charge. In contrast, women tend to speak with each other using a style of talk that attempts to deal with feelings and build connections between people. The current study disregarded such variables in order to focus on language and the defensive and supportive types of talk used by the participants themselves. Given the constraints of the current study, the researcher did not have the resources to recruit more males which resulted in the uneven distribution of gender. Thus, the study did not focus on socio-demographics such as gender, age, or ethnicity, all of which can lead to differences in talk and influence perceptions of communication climate. Nevertheless, this exploratory research opens the door to more questions and future research, which can

be approached through other studies that examine the influence of such variables on perceptions of communication climate.

Indeed, the different types of interaction between participants can influence their talk, and a defensive partner can react differently than with a more supportive one. A confederate placed in the experiment who provides the same style of communication for all participants could address this weakness and explore whether the same communication pattern occurs in different contexts, such as a business meeting or classroom setting. Jack Gibb's model, along with others, has been effective in describing how different types of talk are influential in creating a defensive or supportive communication climate. Further research is needed to determine how supportive types of talk can be used to transform a negative communication climate into a more positive one.

Future Research

While there is much research supporting Gibb's (1961) model of defensive and supportive communication, less research has been done to identify the relationship between type of talk, verbal aggressiveness and communication climate. The effects of defensive and supportive messages on communication climate provide a strong justification for studying verbal aggression, in order to allow for greater control by those who receive such messages over its destructive impact on relationships. It is important to note that the current study only looked at verbal communication. Future studies could take into consideration non-verbal communication by measuring both the verbal and non-verbal influence on communication climate that might possibly strengthen this study's results. Future research could replicate this study with a larger sample size and with video as well, which shows both verbal and non-verbal vocal cues along with body language

and facial expressions that also have an impact on climate. Thus, further research could focus on how people use non-verbal cues to create defensiveness and supportiveness. Such a study could enable researchers to take a reading of the emotional and social tone of a relationship, and provide insight into how non-verbal communication is essential to the messages that influence communication climate.

This study gives examples of messages that are both productive and supportive. People who use supportive communication avoid using language that in any way disconfirms the other person. The qualitative analysis has shown how a particular style of talk is more likely to build a positive communication climate spiral. Such results support Gibb's model of defensive and supportive types of talk including the twelve categories that influence a positive or negative communication climate. Each of these were discussed in detail as a solution for how to transform communication climates and protect oneself against the problematic effects of a negative spiral gone out of control through the use of defensive messages. In other words, the current study explored the problematic language of defensiveness along with the potential solution given by Gibb's (1961) work. The information obtained provides interpersonal communication researchers with additional insights regarding how a supportive style of talk creates a positive communication climate, which in turn, can limit the effects of verbal aggressiveness. Such dialogue gives useful examples of how to communicate more effectively with others and provide more choices in behaviour than many of the responses that result from a defensive type of talk.

To conclude, whenever people are communicating with each other, a communication climate is being created and recreated. Understanding the ways that

defensive and supportive types of talk have an influence on perceptions of communication climate adds to the current knowledge related to controlling verbal aggressiveness. An ability to change communication climates through supportive messages has important implications for how humans relate with each other in everyday conversations. This thesis explored the relationship between defensive and supportive types of talk, verbal aggressiveness and communication climate. Results of this study have found that closely examining a conversation directed towards solving a problem can assist in understanding the factors that influence the perception of communication climate. Continuing to examine the influences on communication climate will allow for a better understanding of the ways in which people can improve the quality of relationships they have with others in their everyday life.

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Appendix 1: Verbal Aggressiveness Scale

PAGE 1

Information Sheet & Participant Consent Form

The impact of defensive and supportive talk on communication climate

Researcher: Peter Hajdasz, MA Candidate, Department of Communication, University of Ottawa

Supervisor: Jenepher Lennox-Terrion, Ph.D, Professor, Department of Communication, University of Ottawa

Please read this Information Sheet and Consent Form carefully and ask as many questions as you like before deciding whether to participate.

Introduction: You have been invited to participate in a research project entitled: The impact of defensive and supportive talk on communication climate. The purpose of this project is to investigate the relationship between different messages on communication climate and verbal aggressiveness.

Procedure: Your participation will last approximately 5 minutes and you will be asked to complete an online questionnaire. It is expected that approximately 200 other students from CMN 1160 will also take part in the questionnaire.

Risks and Discomforts of Participation: Participation in this questionnaire requires approximately 5 minutes of your time. There are no known risks to participating in this study.

Benefits of Participation: You may not receive any direct benefit from your participation in this research. Your participation in this study will allow the researcher to better understand interpersonal communication from a societal perspective. The effects of defensive and supportive messages on communication climate provide a strong justification for studying verbal aggression, in order to allow for greater control over its impact.

Confidentiality: Only the Researcher and Supervisor will have access to the raw data and anonymity in publications and presentations will be preserved. Data gathered during this research study will be conserved for 5 years after any publications that result from it.

Participation: Participation in this research is completely voluntary. You are free to choose to participate or not to participate in this research study. If you agree to participate in this study, you may choose to withdraw your participation at any time. You may also refuse to answer any specific questions.

Consent to Participate in Research

I understand that I am being asked to participate in a research study to help understand the impact of defensive and supportive talk on communication climate.

I have read and understood this Information Sheet and Consent Form. All my questions at this time have been answered to my satisfaction.

If you would like to be contacted to participate in the second phase of the study, please put your email address below:

Q1

1. I voluntarily agree to participate in this study.

Yes

No

email address

PAGE 2

How Verbally Aggressive Are You?

This scale measures how people try to obtain compliance from others. For each statement, indicate the extent to which you feel it's true for you in your attempts to influence others.

Use the following scale: 1 = strongly disagree, 2 = disagree, 3 = undecided, 4 = agree, 5 = strongly agree.

Q2

1. If individuals I am trying to influence really deserve it, I attack their character.

1 - strongly disagree

2 - disagree

3 - undecided

4 - agree

5 - strongly agree

Q3

2. When individuals are very stubborn, I use insults to soften their stubbornness.

- 1 - strongly disagree
- 2 - disagree
- 3 - undecided
- 4 - agree
- 5 - strongly agree

Q4

3. When people behave in ways that are in very poor taste, I insult them to shock them into proper behavior.

- 1 - strongly disagree
- 2 - disagree
- 3 - undecided
- 4 - agree
- 5 - strongly agree

Q5

4. When people simply will not budge on a matter of importance, I lose my temper and say rather strong things to them.

- 1 - strongly disagree
- 2 - disagree
- 3 - undecided
- 4 - agree
- 5 - strongly agree

Q6

5. When individuals insult me, I get a lot of pleasure out of really telling them off.

- 1 - strongly disagree
- 2 - disagree
- 3 - undecided

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- 4 - agree
- 5 - strongly agree

Q7

6. I like poking fun at people who do things that are stupid in order to stimulate their intelligence.

- 1 - strongly disagree
- 2 - disagree
- 3 - undecided
- 4 - agree
- 5 - strongly agree

Q8

7. When people do things that are mean or cruel, I attack their character to help correct their behavior.

- 1 - strongly disagree
- 2 - disagree
- 3 - undecided
- 4 - agree
- 5 - strongly agree

Q9

8. When I am trying to influence others but nothing seems to work, I yell and scream to get some movement from them.

- 1 - strongly disagree
- 2 - disagree
- 3 - undecided
- 4 - agree
- 5 - strongly agree

Q10

9. When I am unable to refute others' positions, I try to make them feel defensive to weaken their positions.

- 1 - strongly disagree
- 2 - disagree
- 3 - undecided
- 4 - agree
- 5 - strongly agree

Q11

10. When people refuse to do a task I know is important without good reason, I tell them they are unreasonable.

- 1 - strongly disagree
- 2 - disagree
- 3 - undecided
- 4 - agree
- 5 - strongly agree

PAGE 3

Q12

1. Are you Male or Female?

- Male
- Female

Q13

2. What is your age?

Q14

3. What is your program of study?

Q15

4. What is your year in the program?

- 1st year
- 2nd year
- 3rd year
- 4th year
- 5th year

PAGE 4

Thank you for completing our survey, we appreciate your time and feedback!

Appendix 2: Problem Solving Exercise

**WINTER SURVIVAL
A Simulation Game**

You and your companions have just survived the crash of a small plane. Both the pilot and co-pilot were killed in the crash. It is mid-January, and you are in Northern Canada. The daily temperature is 25 below zero, and the night time temperature is 40

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below zero. There is snow on the ground, and the countryside is wooded with several creeks criss-crossing the area. The nearest town is 20 miles away. You are all dressed in city clothes appropriate for a business meeting. Your group of survivors managed to salvage the following items:

- A ball of steel wool
- A small axe
- A loaded .45-caliber pistol
- Can of Crisco shortening
- Newspapers (one per person)
- Cigarette lighter (without fluid)
- Extra shirt and pants for each survivor
- 20 x 20 ft. piece of heavy-duty canvas
- A sectional air map made of plastic
- One quart of 100-proof whiskey
- A compass
- Family-size chocolate bars (one per person)

Your task as a group is to list the above 12 items in order of importance for your survival. List the uses for each. You **MUST** come to agreement as a group.

Appendix 3: Communication Climate Inventory

PAGE 1

Q1

1. What is your email address?

PAGE 2

The statements below relate to how your partner and you communicate in solving the Winter Survival Game. There are no right or wrong answers. Respond honestly to the statements, using the following scale:

1 = Strongly Agree, 2 = Agree, 3 = Uncertain, 4 = Disagree, 5 = Strongly Disagree

Q2

1. My partner criticized my ideas without allowing me to explain.

- 1 = Strongly Agree
- 2 = Agree
- 3 = Uncertain
- 4 = Disagree
- 5 = Strongly Disagree

Q3

2. My partner allowed me as much creativity as possible in solving the problem.

- 1 = Strongly Agree
- 2 = Agree
- 3 = Uncertain
- 4 = Disagree
- 5 = Strongly Disagree

Q4

3. My partner always judged my actions.

- 1 = Strongly Agree
- 2 = Agree
- 3 = Uncertain
- 4 = Disagree

5 = Strongly Disagree

Q5

4. My partner showed flexibility in solving the problem.

1 = Strongly Agree

2 = Agree

3 = Uncertain

4 = Disagree

5 = Strongly Disagree

Q6

5. My partner criticized my ideas in the presence of others.

1 = Strongly Agree

2 = Agree

3 = Uncertain

4 = Disagree

5 = Strongly Disagree

Q7

6. My partner was willing to try new ideas and to accept other points of view.

1 = Strongly Agree

2 = Agree

3 = Uncertain

4 = Disagree

5 = Strongly Disagree

Q8

7. My partner believed that he or she must control how we solve the problem.

1 = Strongly Agree

- 2 = Agree
- 3 = Uncertain
- 4 = Disagree
- 5 = Strongly Disagree

Q9

8. My partner understood the difficulty that I encountered in solving the problem.

- 1 = Strongly Agree
- 2 = Agree
- 3 = Uncertain
- 4 = Disagree
- 5 = Strongly Disagree

Q10

9. My partner was always trying to change my attitudes and behaviors to suit his or her own.

- 1 = Strongly Agree
- 2 = Agree
- 3 = Uncertain
- 4 = Disagree
- 5 = Strongly Disagree

Q11

10. My partner respected my feelings and values.

- 1 = Strongly Agree
- 2 = Agree
- 3 = Uncertain
- 4 = Disagree
- 5 = Strongly Disagree

Q12

11. My partner always needed to be in charge of the situation.

- 1 = Strongly Agree
- 2 = Agree
- 3 = Uncertain
- 4 = Disagree
- 5 = Strongly Disagree

Q13

12. My partner listened to my ideas with interest.

- 1 = Strongly Agree
- 2 = Agree
- 3 = Uncertain
- 4 = Disagree
- 5 = Strongly Disagree

Q14

13. My partner tried to manipulate me to get what he or she wanted or to make himself or herself look good.

- 1 = Strongly Agree
- 2 = Agree
- 3 = Uncertain
- 4 = Disagree
- 5 = Strongly Disagree

Q15

14. My partner did not try to make me feel inferior.

- 1 = Strongly Agree
- 2 = Agree
- 3 = Uncertain

- 4 = Disagree
- 5 = Strongly Disagree

Q16

15. I had to be careful when talking to my partner so that I would not be misinterpreted.

- 1 = Strongly Agree
- 2 = Agree
- 3 = Uncertain
- 4 = Disagree
- 5 = Strongly Disagree

Q17

16. My partner participated in solving the problem without projecting his or her higher status or power.

- 1 = Strongly Agree
- 2 = Agree
- 3 = Uncertain
- 4 = Disagree
- 5 = Strongly Disagree

Q18

17. I seldom said what really was on my mind, because it might have been twisted and distorted by my partner.

- 1 = Strongly Agree
- 2 = Agree
- 3 = Uncertain
- 4 = Disagree
- 5 = Strongly Disagree

Q19

18. My partner treated me with respect.

- 1 = Strongly Agree
- 2 = Agree
- 3 = Uncertain
- 4 = Disagree
- 5 = Strongly Disagree

Q20

19. My partner and I became involved in conflict when solving the problem.

- 1 = Strongly Agree
- 2 = Agree
- 3 = Uncertain
- 4 = Disagree
- 5 = Strongly Disagree

Q21

20. My partner did not have hidden motives in dealing with me.

- 1 = Strongly Agree
- 2 = Agree
- 3 = Uncertain
- 4 = Disagree
- 5 = Strongly Disagree

Q22

21. My partner was not interested in solving the problem together.

- 1 = Strongly Agree
- 2 = Agree
- 3 = Uncertain
- 4 = Disagree

5 = Strongly Disagree

Q23

22. I felt that I could be honest and straightforward with my partner.

1 = Strongly Agree

2 = Agree

3 = Uncertain

4 = Disagree

5 = Strongly Disagree

Q24

23. My partner rarely offered moral support during the problem solving game.

1 = Strongly Agree

2 = Agree

3 = Uncertain

4 = Disagree

5 = Strongly Disagree

Q25

24. I felt that I could express my opinions and ideas honestly to my partner.

1 = Strongly Agree

2 = Agree

3 = Uncertain

4 = Disagree

5 = Strongly Disagree

Q26

25. My partner tried to make me feel inadequate.

1 = Strongly Agree

- 2 = Agree
- 3 = Uncertain
- 4 = Disagree
- 5 = Strongly Disagree

Q27

26. My partner defined his or her position in the problem solving game so it could be understood but did not insist that I agree.

- 1 = Strongly Agree
- 2 = Agree
- 3 = Uncertain
- 4 = Disagree
- 5 = Strongly Disagree

Q28

27. My partner made it clear that he or she was in charge.

- 1 = Strongly Agree
- 2 = Agree
- 3 = Uncertain
- 4 = Disagree
- 5 = Strongly Disagree

Q29

28. I felt free to talk to my partner.

- 1 = Strongly Agree
- 2 = Agree
- 3 = Uncertain
- 4 = Disagree
- 5 = Strongly Disagree

Q30

29. My partner believed that if the problem solving game was to be done right, he or she must oversee it or do it.

- 1 = Strongly Agree
- 2 = Agree
- 3 = Uncertain
- 4 = Disagree
- 5 = Strongly Disagree

Q31

30. My partner defined the problem we had to solve.

- 1 = Strongly Agree
- 2 = Agree
- 3 = Uncertain
- 4 = Disagree
- 5 = Strongly Disagree

Q32

31. My partner could not admit that he or she made mistakes.

- 1 = Strongly Agree
- 2 = Agree
- 3 = Uncertain
- 4 = Disagree
- 5 = Strongly Disagree

Q33

32. My partner tried to describe his or her ideas fairly without labeling them as good or bad.

- 1 = Strongly Agree
- 2 = Agree

- 3 = Uncertain
- 4 = Disagree
- 5 = Strongly Disagree

Q34

33. My partner was dogmatic; it was useless for me to voice an opposing point of view.

- 1 = Strongly Agree
- 2 = Agree
- 3 = Uncertain
- 4 = Disagree
- 5 = Strongly Disagree

Q35

34. My partner presented his or her feelings and perceptions without implying that a similar response was expected from me.

- 1 = Strongly Agree
- 2 = Agree
- 3 = Uncertain
- 4 = Disagree
- 5 = Strongly Disagree

Q36

35. My partner thought that he or she was always right.

- 1 = Strongly Agree
- 2 = Agree
- 3 = Uncertain
- 4 = Disagree
- 5 = Strongly Disagree

Q37

36. My partner attempted to communicate clearly and without personal bias.

- 1 = Strongly Agree
- 2 = Agree
- 3 = Uncertain
- 4 = Disagree
- 5 = Strongly Disagree

Appendix 4: Problem Solving Exercise & CCI Consent Form

Information Sheet & Participant Consent Form

The impact of defensive and supportive talk on communication climate

**Researcher: Peter Hajdasz, MA Candidate, Department of Communication,
University of Ottawa**

**Supervisor: Jenepher Lennox-Terrion, Ph.D, Professor, Department of
Communication, University of Ottawa**

Please read this Information Sheet and Consent Form carefully and ask as many questions as you like before deciding whether to participate.

Introduction: You have been invited to participate in a research project entitled: *The impact of defensive and supportive talk on communication climate*. The purpose of this project is to investigate the relationship between different messages on communication climate and verbal aggressiveness. The study will involve you participating in a problem solving experiment with a partner in the Communication Lab (MRT 0036) at the University of Ottawa, and completing a questionnaire right after. Your participation will last approximately 20 minutes. It is expected that approximately 30 other students from CMN 1160 will take part in the experiment.

Procedure: If you agree to participate in the study the researcher will give you a problem solving game to complete with your partner in 15 minutes. The researcher will record your conversation on an audiotape. You will then be asked to complete a questionnaire and this will only take approximately 5 minutes.

Risks and Discomforts of Participation: Participation in this study requires approximately 20 minutes of your time to complete an experiment and questionnaire with the researcher. While the experiment should be a fun experience, you will have a chance to discuss any negative feelings during the de-briefing right after the experiment.

Benefits of Participation: You may not receive any direct benefit from your participation in this research. Your participation in this study will allow the researcher to better understand interpersonal communication from a societal perspective. The effects of defensive and supportive messages on communication climate provide a strong justification for studying verbal aggression, in order to allow for greater control over its impact.

Confidentiality: You will not be identifiable in publications or presentations but you may be directly quoted from the interviews in publications or in presentations. Only the Researcher and Supervisor will have access to the raw data and anonymity in publications and presentations will be preserved. Audio-tapes and Transcripts will be

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kept in the locked office of the Supervisor. Data gathered during this research study will be conserved for 5 years after any publications that result from it.

Participation: Participation in this research is completely voluntary. You are free to choose to participate or not to participate in this research study. If you agree to participate in this study, you may choose to withdraw your participation at any time. You may also refuse to answer any specific questions.

Consent to Participate in Research

I understand that I am being asked to participate in a research study to help understand the impact of defensive and supportive talk on communication climate.

I have read and understood this Information Sheet and Consent Form. All my questions at this time have been answered to my satisfaction. I understand that there are two copies of the consent form, one of which is mine to keep.

I voluntarily agree to participate in this study.

Participant's Name

Participant's Signature

Date

Researcher's Signature
