

THE PERCEPTION OF GENDER DIFFERENCES IN COMMUNICATION

AND

THE LINK TO THE NATURE OR NURTURE THEORY

A THESIS

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Abstract

What are the perceived communication differences between men and women and how are these differences linked to the nature and nurture theory?

This thesis will uncover the perceived gender communication differences and the possible link to biological differences between men and women. Gender differences have been explored for years and several studies (Begley, Mur, 1995) have been conducted to determine the impact of these differences. The author asserts that different styles of communication and some behavioral differences may be attributed to differences in the male and female brain.

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CHAPTER I

INTRODUCTION

In today's society, there is an emphasis on valuing diversity. We recognize and appreciate differences in culture, ethnicity and religion. At the same time, there is a tendency to pretend that differences do not exist and we are all equal in pursuit of political correctness. For the purpose of this research, the author will focus on the perceived communication differences and the possible link to biological differences between men and women. Kramer (1978, p.192) as cited in Communications Quarterly notes that "perceptions of the speech of males and females may be at least as important to verbal interaction of women and men, as actual differences.

Gender differences have been explored for years and several studies (Begley, Mur 1995) have been conducted to determine the impact of these differences. The author asserts that different styles of communication and some behavioral differences may be attributed to differences in the male and female brain. Begley and Mur (1995, p.1) state the following:

Of course men and women are different. Boy, are they different. In every sphere of life, it seems, the sexes act, react or perform differently. Toys? A little girl daintily sets up her dolls, plastic cups and saucers, while her brother assembles his Legos® into a gun -- and ambushes the tea party. Navigating? The female tourist turns her map every which way but right, trying to find the way back to that

charming bistro, while her boyfriend charges ahead, remembering every tricky turn without fail. Relationships? With spooky intuition, women's acute senses pick up subtle tones of voice and facial expressions; men are insensitive clods who can't tell a sad face until it drenches them in tears. Cognition? Females excel at language, like finding just the right words to make their husbands feel like worms; males can't verbalize even one good excuse for stumbling home at 2 a.m.

Background

During the feminist years of the seventies, it was taboo to discuss the innate differences between men and women, because it implied that one gender was superior. There have been several debates over the differences between how men and women communicate. Women are perceived as the caregivers and the emotional types. They are thought to place more value on building relationships and tend to share their feelings more than men (Tannen, 1990). Many would argue that men are not as adept at sharing emotion, focusing their communication on achieving results rather than on building relationships. There is also a belief that men are better at focusing on one project at a time and women are better at multitasking. Some researchers (Moir, Jessel, 1989) believe that women are better at remembering the placement of items and utilizing fine motor coordination and language, while men are better at mathematical reasoning and mentally rotating objects.

Could biological differences be the explanation why women complain that their male partners don't hear them when they speak while they are watching television or reading the newspaper? Is this due to a lack of interest or a biological difference in the

brain that allows men to only focus on one project at a time? According to David Jessel and Ann Moir, authors of *Brain Sex* (1989, p. 5), “the brains of males and females are constructed differently, resulting in important differences in perceptions, emotional expression, priorities and behavior.”

Purpose of Study

The purpose of this research is to examine the perceived communication differences between genders and to determine the perceived cause of differences. Research (Gorski, 1990) supports that there are differences between the male and female brain that may impact the perceptions of gender communication. This thesis will examine the gender-related biological differences and their possible link to communication. The author will also investigate the perceived cause of communication differences. Are differences between men’s and women’s communication caused by nature or nurture? Is the difference caused by brain development and function or is it the result of the environment? This paper includes various theories on biological differences and the role they play in language, socialization and ultimately the communication styles of men and women.

Limitations of the Study

Most research on communication differences has only been conducted on adults. There is not as much data available on the brain differences and communication styles of young children by gender. The behavior of young children has been observed by researchers and these findings will be shared. Only adults have been part of brain studies

that show activity in different sections of the brain. The results of these studies will be discussed in the following review. The behavior of children would in some ways be a more reliable case study because their behavior has been less impacted by society and life experience. For example, some differences can be seen in the corpus callosum of adult brains (Blum, 1997). This difference is not seen in young children and therefore may be a result of environment.

Lastly, the research does not include differences caused by religion, ethnicity, geography or culture. Nor will there be a differentiation in communication styles per age group. These may all play a role in communication styles and behavior, but that will not be the primary focus in this research.

Research and Subsidiary Questions

Research Questions

What are the perceptions regarding the communication styles of men and women?

What are the perceived causes of these differences?

Subsidiary Questions

What are the differences between the male and female brain?

Do biological differences play a role in communication styles?

What role does society and the environment play in communication styles?

CHAPTER II

LITERATURE REVIEW

This chapter reviews the research on biological differences between the male and female brain. It will also examine how and to what extent these differences impact behavior and communication. Differences between the male and female brain have generated much controversy over the past 20 years. Although many researchers (Gurian, Stevens 2004) agree that there are in fact differences, the impact of those differences varies.

Brain Differences

Male brains are larger than female brains, and for some time, size differences led people to believe men were smarter. This was not proven true. Most studies (Candon, 1999) show that at birth a boy's brain is 12-20 percent larger than a girl's brain. The head circumference is also larger by about 2 percent. These studies also show that brain size is relative to body size, so if two babies are about the same weight, boy or girl, their brain size would be comparable.

In adults the average male brain is still about 12 percent larger and the circumference is 2 percent larger (Blum, 1997). Keep in mind the average male weighs 180 pounds while the average female weighs 152 pounds. Brain size does not have an impact on intelligence, communication or any other behaviors. Although women tend to have smaller brains, studies (Gurian Stevens, 2004) show their brains have more neurons.

These extra neurons are located in the cerebral cortex, which deciphers language and recognizes melodies and voice tones.

The major pathway that connects the left and right sides of the brain is known as the corpus callosum. The left and right brain are the two cerebral hemispheres of the brain. This pathway or corpus callosum is a thick band that runs from one side to the other and contains millions of nerve fibers. There have been claims that the corpus callosum is larger and more developed in women than in men (Gorski, 1998). This allows more “cross-talk” between the hemispheres. Women may have stronger neural connectors in the temporal lobe, which leads to detailed memory retention, better listening skills and the use of more detail in writing.

In 1991 at UCLA, Roger Gorski and Laura Allen examined 146 brains and found that the women’s corpus callosum was 23 percent larger than that of men. This confirmed the researchers’ idea that the right and left sides of the brain in women are in nonstop communication. On the other hand, in men, the two sides of the brain operate more independently. This may explain why women are better able to recover language skills after suffering a left brain stroke, why they tend to have better language skills and why they demonstrate “women’s intuition” (Glass 1992). These may all be attributed to the women’s use of the left brain’s rationality and the right brain’s emotions. Another larger area in the female brain is the hippocampus, which stores memory.

The pre-frontal cortex in females is generally more active and develops earlier. This fact combined with higher levels of serotonin in the bloodstream makes women biologically less impulsive.

Gurian and Stevens (2004, p.21) state that:

With more cortical areas devoted to verbal functioning, sensual memory, sitting still, listening, tonality and mental cross talk, the complexities of reading and writing come easier, on the whole, to the female brain. In addition, the female brain experiences approximately 15 percent more blood flow with this flow located in more centers of the brain at any given time. The female brain tends to drive itself toward stimulants, like reading and writing that involve complex texture, tonality and mental activity.

According to Anne Moir and David Jessel (1989), this may be the reason that boys excel at abstract and physical-spatial functions. Children and adults gravitate to what the brain finds pleasurable and stimulating. Boys have more cortical areas dedicated to spatial and mechanical functioning and they use less brain space than females for verbal-emotive functioning. These traits make boys want to throw balls or build models. Boys have less blood flow in the brain and they compartmentalize learning, so they are better able to focus on one task at a time and are less skilled at multi tasking.

Moir and Jessel (1989, p. 3) state the following:

Boys have less serotonin than girls have, but they also have less oxytocin, the primary human bonding chemical. This makes it more likely that they will be physically impulsive and less likely that they will neurally combat their natural impulsiveness to sit still and empathetically chat with a friend. Generally, boys are better with symbols, diagrams and objects moving through space, than they are with words.

Current research (Gur, 2003) has demonstrated that women have a larger and deeper limbic system. Due to this difference, women are more in touch with their feelings and better able to express feelings. They have an increased ability to bond and form connections with others. This may provide an explanation as to why women in many societies are the primary caretakers of children. One disadvantage of this larger limbic system is that it makes women more susceptible to depression than men. Twenty one percent of women will experience major depression in their lifetime, compared to only 12 percent of men.

In 2003, Newsweek published a cover story on the way men and women use their brains differently, as discovered by brain imaging machines. Richard Haier, professor of pediatrics and neurology at the University of California, states that “even at this early point, we have data to support the idea that men and women in general have brains that work differently.” This technology, known as functional magnetic resonance imaging and positron emission tomography, has enabled researchers to study the brain in the act of cogitating, feeling and remembering. Haier and his team found that women use different neurons than men when they begin reading and when their brains are idle. They also found that women engage more of their brain when they think sad thoughts than they do when attempting to solve a math problem.

A 1995 study conducted by Ruben Gur, director of the Brain Behavior Laboratory at the University of Pennsylvania, had subjects lie in a dark room and think about nothing, so that their brains could be studied while they were idle. There were 37 men and 24 women, and their brains were injected with glucose, which is considered brain

food. Their brains were then monitored by positron emission tomography or PET. They found that in men the idling action occurred in the temporal limbic system, which is the region that controls expressions of emotion like fighting. In the women's brains, the activity was happening primarily in the posterior cingulate gyrus, which is a newly discovered area of the mammalian brain.

As cited in Newsweek, Mozley (1995 p. 2), co-researcher and volunteer, concluded:

The PET scans may actually be showing that, when told to think of nothing, men think of sex and football, while women weave together strings of words. But if in men the pilot light is always on in neurons that control aggression and action, it may explain why they're more violence-prone than women.

In that same study, Gur also discovered that females have 15-20 percent more "gray matter" than men do. The gray matter contains more neurons and allows women more thought-linking capability. In men there is more white matter and cerebrospinal fluid, which gives men superior spatial reasoning. According to Gur, this white matter allows men to inhibit information spread and allows more focus on difficult tasks.

Yale University professor Sally Shaywitz conducted a 1994 study in which 19 men and women were shown nonsense words and had their brains monitored to look for a response to the words as they flashed on a screen. In all 19 men and women, they saw activity in the left inferior gyrus, which is the part of the brain where language is controlled. However, in more than half the women, they also saw activity in the right side or emotion center of the brain. This led them to believe that women draw on reason and emotion when choosing and reacting to language. They also found that half of the

women's brains looked like the men's, a conclusion that has been the case in many brain studies. In other words, women seem able to use their brains as men do, while most men were not able to use their brains as women. Neuropsychologist Melissa Hines of UCLA (1995, p.2) states, "Men seem to be "exclusively channeled into one way of behaving and possibly thinking."

As for using the brain to read emotion, several studies (Baron-Cohen, 2003) indicate that men use more effort in their limbic system than women in reading emotion. Men were able to read emotion in other men's faces 90 percent of the time, but were not as successful reading emotion in women's faces. Women, on the other hand, were able to read emotion, especially sadness, 90 percent of the time in both men and women with very minimal limbic activity.

The Role of Hormones

Another difference that cannot be ignored is the role of hormones in brain function, development and behavior. Both males and females produce sex hormones or androgens. Researchers (Marano, Konner, 2003) agree that high levels of testosterone enable the right hemisphere to dominate the brain. Men have higher testosterone levels. This causes the right brain to dominate, which may explain why there are more left-handed men than women.

Melissa Hines, a behavioral scientist at UCLA, conducted a study in 1990 observing children and their reaction to toys like dolls and dump trucks. Hines and her colleagues observed the children to see which toys they chose and how they behaved while playing. She found that overall boys preferred cars, trucks and Lincoln logs, while

girls were drawn to dolls and domestic toys. Hines also found that a small percentage of girls did prefer the “boys’ toys”. These girls, however, had a genetic abnormality that caused them to produce more testosterone while in the early stages of development.

Neurologist Norman Geschwind (2000) theorized that testosterone affected the development of the two hemispheres of the brain, causing the right side to be more developed in men. The connection between testosterone levels and brain function was tested in a 1990 study at the Addenbrook Hospital, which is a center for the analysis of amniotic fluid. The mothers whose amniotic fluid had been preserved at the hospital were asked to come in for a study and they brought their toddler-age children with them. They found that toddlers who had lower fetal testosterone in their amniotic fluid had higher levels of eye contact and a larger vocabulary. Four years later they conducted another study called the Childhood Communication Checklist, which measures social skills and interests in various subjects. They found that the children with higher levels of pre-natal testosterone had lower social skills and fewer interests. The children with lower testosterone levels had overall better communication skills, which is a sign of better empathizing.

In 2001 Kenneth S. Kendler, director of the Virginia Institute for Psychiatric and Behavioral Genetics at Virginia Commonwealth University, conducted an experiment on opposite sex twins. He found significant differences in their response to stress and low levels of adversity. Women have difficulty shutting off stress hormones because of higher levels of progesterone. This hormone blocks the natural ability of the stress hormone to shut itself down. Women tend to internalize their negative life experiences and replay them. This leaves them more vulnerable to depression hopelessness and

despair according to Susan Nolan Hoeksema, a psychologist at the University of Michigan.

Brain Wiring

Simon Baron-Cohen (2003, p. 27), a Cambridge University psychologist and author of *The Essential Difference, The Truth about the Male and Female Brain*, has another theory.

The female brain is predominantly hard wired for empathy. The male brain is predominantly hard-wired for understanding and building systems. Empathizing is defined as the drive to identify another person's emotions and thoughts and to respond to them with appropriate emotion. Systemizing is defined as the drive to analyze, explore and construct a system. Lack of eye contact and poor language aptitude are early hallmarks of autism, the extreme form of the systemizing male brain.

Baron-Cohen believes these differences are the result of more than just culture and environment. He believes they are connected to the difference in brain development and function. He goes on to say (2003 p. 40):

Women's perceptual skills are oriented to quick people reading. Females are gifted at detecting the feelings and thoughts of others, inferring intentions, absorbing contextual clues and responding in emotionally appropriate ways. They empathize. Tuned to others, they more readily see alternate sides of an argument. Such empathy fosters communications and primes females for

attachment. Men focus first on minute detail, and operate most easily with a certain detachment. They construct rules-based analyses of the natural world, inanimate objects and events. They systemize.

Baron-Cohen also believes that humans share behaviors with animals and therefore these differences are innate and biological. For example, young male baboons and monkeys engage in more play fighting than females, just like human boys. The fact that we see this behavior in males across the species, a desire to show strength and prowess, further supports the notion of innate biological connections. Another similarity between humans and monkeys is the female interest in babies. This supports Baron-Cohen's idea that females are wired for empathizing and caring for others.

Marano (2003, p. 5) observes:

The brain basis of empathizing and systemizing is not well understood, although there seems to be a social brain, nerve circuitry dedicated to person perception. Its essential components lie on the left side of the brain, along with language centers generally more developed in females.

Nature vs. Nurture

Jerre Levy (1992, p. 42), professor of Psychology at the University of Chicago, states the following:

When I was younger, I believed that 100 % of sex differences were due to the environment...after 20 years of studying the brain, I'm sure there are biologically based differences in our behavior. The studies provide no evidence favoring

either nature or nurture. There's one thing I know that testosterone does to masculinize [men's] brains. It causes them to be born with a penis. And everybody treats the boy baby differently [than they do a girl. I'm sure that affects the development of the brain. Is that a biological effect or a social effect? It's both.

Even though various research supports there are differences in male and female brains, it doesn't ignore the significant impact of nurturing and environmental factors on the behavior of adult men and women. As soon as the sex of a child is determined, parents and society have decided how that child will be raised. They decide what color to paint the room, what toys to buy, and the activities in which they will engage. The life experiences of men and women are different and cannot be ignored when determining causes of behavior.

Researchers (Glass, 1992) argue that little girls receive more nurturing verbal and non-verbal communication from the beginning. They are handled with care and described as sweet and gentle. They are taught to be lady-like, modest, and discouraged from being tough and confrontational. Little boys, in contrast, are expected to be tough and assertive. They are expected to engage in sports, get down and dirty and are rewarded for standing up for themselves. These differences lead to varying expectations and communication behaviors. Men are generally not taught to openly express their feelings or have intimate conversations with their friends. Once these expectations are reinforced, men and women feel uncomfortable when stepping out of their prescribed roles for fear of judgment and negative reactions.

The games children play also have an impact on their communication styles. Boys play in large groups and teams and have clear rules. Girls play in small groups or with one best friend and the rules are not always considered. Girls will pick their friend for their team, while boys will pick the best player so they can win the game. In boys' games, a leader usually emerges. When girls play, there is no defined leader and they negotiate the rules, a strategy referred to as cooperative play. Boys heckle each other, give orders, and try to show that they are the best.

Boys' games have winners and losers, which help them achieve status. Robin Lakoff (1993 p. 6) considers status to have a major impact on gender communication. In her book, Talking Power, the Politics of Language, she states:

The language of males is powerful, direct, clear and succinct, as would be expected by those who do not need to fear giving offense or directing change. Females' language, on the other hand, developed as a way of surviving and flourishing without control. The less powerful have to listen, agree rather than confront, be indirect, and say risky things out of the hearing range of others. The weak get what they need through persuasion and influence, anticipating what others want, and placating the powerful.

Impact of Gender Differences on Communication

Although self-perception, environment, and status play significant roles in communication differences, research (Tannen 1990, Glass, 1992) indicates there are nature-based differences in style. Male communicators are more dominant, aggressive, argumentative and dramatic. Female communicators demonstrate more friendliness and

openness and display more non-verbal animation like eye contact and facial expressions (Tannen, 1990, Glass, 1992). The following links can be made between biological design and perceived communication styles:

- Women have stronger connections between the left and right sides of their brains; therefore, there is a stronger connection between language and emotion. Men are better able to separate words from emotion. (Konner 2003, Shaywitz, 1994)
- Men have less oxytocin, the primary human bonding chemical; therefore, they place less emphasis on building and maintaining relationships through communication. (Blum, 1997, Moir, Jessel 1989)
- Women have a larger and deeper limbic system. This makes women more aware of and better able to express feelings. This also enables women to read emotion with minimal limbic activity. (Shaywitz, 1994)
- Women string together thoughts and words when their brain is resting, which leads to an ease with communicating through language. (Shaywitz, 1994)
- Men have more white matter, which makes them more skilled at separating tasks and focusing on one thought or process at a time without interference. This may make them seem “disinterested” in conversation, if they are performing another task at the same time. (Gur, 2004)
- Higher testosterone levels can impact social skills, including eye contact and vocabulary, which both impact the communication between two people. (Baron-Cohen, 2003)

- High levels of progesterone in women can cause them to replay negative experiences.

This can inhibit communication progress in any relationship because previous events are still on the radar. (Nolen-Hoeksema, 2003)

Several books have been written as guides to help men and women understand one another. From the very popular Men are from Mars; Women are from Venus, by John Gray to Deborah Tannen's collection of books on the topic, it appears that our contrasting communication styles do have a significant impact on our relationships. If testosterone levels have a significant impact on brain development and, therefore language skills, verbal ability, and brain function, it is possible that women and men communicate differently based on biology. Society is evolving to a place where men and women have access to the same opportunities; however, there are still larger numbers of men and women in particular fields. Wouldn't this suggest that biological factors play some role in career choices? If hormones and genetic make-up can determine the toys children play with, their social skills, and their later career choice, then communication may also be significantly impacted.

Communication Differences

Research (Tannen, 1990) suggests that men and women have different communication styles. They attribute these differences to socialization, self-image, status, power and finally biology. In conversation, men and women appear to be doing the same thing. The difference is not so much in the words, but in the purpose of the conversation. Following are some common communication differences between men and women.

According to Tannen, (1990) men use conversation to compete, navigate their way within a hierarchy, share facts and information, and to solve problems. As Baron-Cohen suggests, they systemize. They also see communication as a way to maintain status and preserve independence. They do this by sharing their knowledge of a subject, showing a skill or teaching. Women use conversation to build relationships, understand their own and other people's feelings, make connections or empathize. Women also tend to use conversation to gain agreement, understanding and support.

In her 1990 book You Just Don't Understand, Deborah Tannen refers to these two styles as "report talk" for men and "rapport talk" for women. Although women have superior verbal skills, they talk less in public. Men are more comfortable giving a presentation than having an intimate conversation, because they learned this skill in the hierarchical games they played. Women may feel on display when giving a speech to a group and are more comfortable in small group discussions about personal subjects. Women tend to avoid conflict and use language like "sort of" and "kind of". They don't assert their opinion as strongly and when they do express it, they often end with a question in the hopes of gaining agreement and inviting dialogue. Women like to build relationships and are more concerned with being liked and accepted. Men are more confident when expressing their opinion. Their socialization encourages them to be more firm and allows them to show aggression.

Other communication differences can be found in the way men and women listen and respond to each other, the way they use body language, and their listening habits. Women tend to use active listening gestures like nodding, making eye contact and commenting during the story. Men display what appears to be disinterest when listening,

because they tend to interrupt and use fewer facial expressions. It would not be unusual to see this picture of women and men conversing: the two men are side by side making little eye contact, and the two women are sitting forward, face to face, appearing fully engaged. Women expect reciprocation when listening, so they are more likely to take turns talking and listening. Women also mix details with personal information. Men place less value on taking turns. Instead, they place value on conversations that are factual and brief.

John Gray (1992) dedicates a chapter in his popular relationship book, Men are from Mars; Women are from Venus to the different language men and women use. He says they use the same words, but the words have different meanings. He asserts that men and women rarely mean the same thing even when they say the same words. Gray (1992, p. 60) found that “to fully express their feelings, women assume poetic license to use various superlatives, metaphors and generalizations.” Because men take words literally and use words to convey facts and share information, they often misunderstand the intent of a woman’s message. According to Gray, the number one complaint women have in relationships is that they don’t feel heard.

Men tend to keep their feelings inside and think of ways to solve problems, while women like to talk about their problems. This can lead to communication problems because silence is often misunderstood and misinterpreted by women. When women process information, they think aloud and share their thoughts with the listener. This free flow of thought helps women tap into their intuition and is a normal process. Men process information by “mulling things over.” Gray refers to this as men “going to the cave.” They formulate the resolution internally and then share it.

These opposite styles lead partners to believe their feelings are not being validated, which in turn causes them to grow apart. Perhaps this can be attributed to men's tendency to systemize and women's tendency to empathize. Women will want to offer help and guidance to others if they feel there is a problem. Men prefer to systemize and find a way to solve their own problems and don't react well to someone trying to solve problems for them. Although these differences don't apply to all men and women, they are common enough to be the subject of books, articles and debates on gender communication differences.

Biological differences play a significant role in the development of men and women. Society begins to impact boys and girls from the day they are born and placed in a pink or blue blanket. Research (Baron-Cohen 2003) asserts that although there may be innate biological differences, the impact of society and environment cannot be ignored. Everything from the games we play as children to the way we are treated in the classroom can affect our communication styles.

The following survey asked participants if they see communication differences and if so, if they attribute these differences to nature or nurture. There are several factors that impact one's perception of differences, including age, gender and culture. The need to disagree with stereotypes also impacts one's response to differences. In other words, people may be reluctant to admit that they agree with differences, if they think one is superior or the difference shines a negative light on one gender. In chapter four, the author will review the survey participants' thoughts on this subject and see how they compare to the subject matter experts.

CHAPTER III

DATA COLLECTION AND METHODOLOGY

After conducting a literature review on communication differences and the possible causes, the author began to examine if the perceptions matched the research. In order to research the perceptions regarding gender research, the author utilized the online survey tool, called Zoomerang. This site can be found at zoomerang.com and allows the researcher to create a variety of surveys in different formats. This site allows you to modify the format, view your results and send reminders at anytime during the three-month contract. The first steps were to open an account online, and then create the survey, and establish a survey link to send to subjects via email. There is an option to use a Zoomerang database for respondents or send the survey to your own email list and post on various websites. The researcher chose to send the survey to a personal email list, which contained almost 200 people including, colleagues, classmates and contacts. The author then researched universities with gender studies programs and requested that the survey link be posted on the site. The responses were anonymous, so the respondents could have come from any of these sources. The survey was launched in February and remained open for 45 days in order to ensure maximum participation.

The next step was to develop survey questions. At first the survey included questions incorporating relationship status, culture and ethnicity. The questions around these topics were later removed, as they would add too many variables to the research. The intention was to focus on perceived communication differences, the perceived cause

of those communication differences and what differences the respondents saw in their personal experiences.

The survey contained six questions, two of which were for demographics purposes. The reason the survey was kept to six questions was to encourage participation by keeping it brief. The first question asked respondents whether they believed men and women had different communication styles with the option of yes, no, or other response. The other option was to see if respondents had a reaction to this statement and to encourage comments from the onset. If participants answered no, they didn't believe there were differences, and they had the option to skip to question # 4.

The format of question # 2 was a series of statements that the subjects could check off if they believed the statement was true. These statements forced the participants to choose an answer regardless of the situation with no room for any further explanation. The survey also included an open comments portion for the subjects to add differences they witnessed that were not listed. Question # 3 focused on the perceived cause for the communication differences. This question also included an open comments box.

Questions # 4 and # 5 were demographic questions related to gender and age. Knowing the gender of the subjects would be important to understand how women perceive men and how men perceive women. The age of the respondents was important as different generations may have different expectations of the opposite gender. The site had 222 visits and 186 survey responses including 57 men and 129 women between the ages of 21 and 60.

Survey Questions

1. Do you believe men and women have different communication styles?
2. Review the following list of statements and check those that you believe to be true.
 - Men are less likely to share emotion and feelings
 - Men are able to focus on one project at a time and less able to multi-task
 - Women are more likely to bond with other women
 - Women are emotional
 - Women can more easily recall past negative memories and experiences
 - Men are more impulsive
 - Women are better able to read the emotions of others
 - Women react more strongly to feedback
 - Men are skilled in math and science while women have stronger language skills
 - Women are more empathetic
 - Women converse to gain understanding and support
 - Men are more assertive when expressing their opinion
 - Men appear to be disinterested when listening
 - Men take words at face value without looking for deeper meaning
 - Women include more details when telling stories
 - Men ask fewer questions
3. What do you think is the primary reason for communication differences between men and women?
4. What is your gender?
5. What is your age?

CHAPTER IV

SURVEY FINDINGS

There were 186 completed surveys submitted from men (57) and women (129) of varying ages. Although age did not seem to be a factor in any responses, the highest participation among the age groups was in the 31 to 40 range, with 81 responses. Most of the participants were women, which suggests that women are more interested in a survey on this subject. There were 8 respondents who did not believe there were differences in communication styles, and this group was equally divided among men and women.

The strongest correlation, based on the survey results, was respondents' perception of emotional differences between men and women. These include statement relative to reading, sharing and empathizing with emotions. A range of 61% - 77% of respondents agreed with all three statements regarding emotional tendencies by gender, indicating that they believed there are emotional differences between men and women. "Men are less likely to share emotion and feelings" had the highest support, with 77% of total respondents in agreement with that statement. Furthermore, 67% agreed with the statement, "Women are more emotional" with a mere 1% difference between the genders on this statement.

Question # 1. Do you believe men and women have different communication styles?

The overall response to this question was a resounding yes; 97% of females and 93% percent of males believed there were communication differences. Overall, 96% of the total participant population agreed with this statement. This suggests that most male and female subjects believe there are differences. Since 3% of the female respondents did not believe there were differences and almost twice the amount of male respondents, 7%, did not believe there were differences, this suggests that more women than men believe there is a difference in communication based on gender.

Question # 2 –Review the statement below and check those which you believe to be true.**Statement # 1: Men are less likely to share emotions and feelings.**

More than 75% of male and female survey participants agreed with this statement. Forty-five of the 57 male subjects agreed with this statement (what percent). This suggests that men do not consider themselves to be emotional, and they are less likely to share their feelings with male or female companions. This perception may be linked to the biological difference in the levels of oxytocin in the brain. As mentioned earlier, this “human bonding chemical” may cause women to share emotions in an attempt to bond with others. (Blum, 1997, Moir, Jessel, 1989) Another link may be to the assertion that women have a deeper limbic system which may impact women’s ability to express their feelings.

Statement # 2: Men are able to focus on one project at a time and less able to multitask.

This statement received 45% agreement from female respondents and only 11% agreement from male respondents. This perception could be linked to Ruben Gur's research regarding the amount of white matter and cerebrospinal fluid in the male brain and the relative ability to focus on one project at a time. The responses suggest that men do not perceive this to be true about them. It also suggests they may view this as a negative trait and therefore tend to disagree with this statement without realizing the benefit of this ability.

Statement # 3: Women are more likely to bond with other women.

Although there wasn't overwhelming agreement with this statement, there were 60 women compared to only 18 men who believed this statement to be true. The purpose of this statement was to confirm whether women find it easier to communicate and share emotions with other women, since research (Tannen, 1990) suggests that women are more focused on building and maintaining relationships.

Statement # 4: Women are more emotional.

More than 60% of the respondents agreed with this statement. This garnered almost as much agreement as the opposite statement for men. This is another stereotypically negative statement, which may be a manifestation of genetic makeup. As stated earlier, women have a deeper limbic system which can make them more aware of

and expressive of their feelings. This, combined with higher levels of oxytocin, may cause women to share emotions more often than men.

Statement # 5 – Women can more easily recall past negative experiences.

Almost half of the female subjects agreed with this statement. The level of agreement was high with a total of 88 participants in agreement (42% of men and 49% of women). This perception can be linked to research (Kendler, 2003) that women have higher levels of progesterone and serotonin, which can increase their tendency to replay negative experiences. Women also have a larger hippocampus which stores memory.

Statement # 6 – Men are more impulsive.

Significantly fewer women agreed with this statement. Only 23% of women compared to 32% of men found this to be true. Additionally a woman's pre-frontal cortex is more developed. This difference, combined with higher levels of serotonin may make women less impulsive.

Statement # 7 – Women are better at reading emotions of others.

Women require minimal limbic activity to read the emotions of others. Simon Baron-Cohen's research on this topic is aligned with the survey participant responses. 47% of men and 67% of females agreed with this statement.

Baron-Cohen contends "Baby girls, as young as 12 months old, respond more empathetically to the distress of other people, showing greater concern for others through

more sad looks, empathetic vocalizations and comforting behavior.” (Baron-Cohen, 2003)

Statement # 8 - Women react more strongly to feedback.

This statement gained agreement from 67% of females and only 39% of males. This would indicate women are more aware of their own reaction to feedback than their male counterparts. It also suggests that men are less impacted by feedback than women. This relates to the research of Sally Shaywitz in which she found that female subjects responded to random words on both sides of their brain. They had reactions in language and emotion centers, indicating that women link emotion to language more often than men.

Statement # 9-Men are skilled in math while women and science while women have stronger language and writing skills.

This statement received the least amount of agreement with only 19% of men and 26% of women. Controversy recently erupted when Lawrence Summers, president of Harvard University, suggested that innate differences between the sexes could be the reason that fewer women succeed in science and math careers. He angered his audience further by stating that “cutting edge research has shown that genetics are more important than previously thought, compared with environment and upbringing.” Statements like these automatically place people on the defensive, which may be the reason for the low level of agreement with this statement.

Although there has been research, (Glass, 1992) to support that women develop language skills earlier and men have a stronger ability to solve complex math problems, the statement implies the superiority of one gender. According to Ann Moir and David Jessel, men have more areas dedicated to spatial and mechanical functions which may have a strong influence on their math and science capabilities.

Statement # 10-Women are more empathetic.

Not surprisingly, this statement received a high level of agreement with 42% of males and 65% of females in agreement. This can be linked to Baron-Cohen's theory of women being hard wired for empathy as well as chemical makeup like higher levels of oxytocin. Although oxytocin is present in all mammals, this hormone is counter-balanced by male hormones and therefore has a lower impact on men. UCLA researcher Shelley Taylor refers to this hormone as the "tend and befriend" hormone. It causes women to nurture others (tend) and share feelings and emotions (befriend) when under stress. The stereotype that women are more maternal may be due simply to research, (Taylor, 2002), that states that women have higher levels of oxytocin, a hormone that causes maternal behavior both physiologically and biologically.

Statement # 11-Women use conversation to gain understanding and support.

More than 70% of women agreed with this statement and only 35% of men agreed. This suggests that men are not aware of the purpose of female conversation or perhaps women most often converse with other women to gain understanding and

support. Tannen refers to this as “rapport talk”, whereas men tend to use conversation to get results.

Statement # 12- Men are more assertive when expressing their opinion.

This statement received a moderate level of agreement with 30% of men and 40% of women. This can be linked to styles of play where boys are more likely to assert themselves in a game or to get to use a toy. Boys tend to use conversation to assert themselves and see it as a competition. Girls often use conversation to explore their feelings and find common ground.

Statement # 13- Men appear to be disinterested when listening.

This is along the same vein as women showing more empathy in conversation. When a person is being empathetic, it is displayed through his or her body language. This can also be impacted by higher levels of testosterone, which can impact eye contact and social skills. This statement received a higher level of agreement from women (38%) than men (28%).

Statement # 14- Men take words at face value without looking for deeper meaning.

This statement received a high level of agreement from male and female respondents. With 49% of males and 55% of females in agreement, it lends support to the research of Sally Shaywitz. Women tend to attach more emotion to language and tend to look for deeper meaning.

Statement # 15-Women include more details when telling stories.

Many more women (71%) agreed with this statement than men (44%). There was a large disparity in the responses to this statement, which could be attributed to women sharing details of their stories with other women. This statement is linked to research, (Gorski, 1992) that women generally include more detail when telling and writing stories.

Statement # 16 – Men ask fewer questions.

This statement garnered comparable levels of agreement with 51% of men and 56% of women agreeing. This is relative to Tannen's assertion that men talk to share information and details. They may have a decreased need to give or receive extraneous details. They report information which usually is limited to relevant facts and action items. The responses were equally divided on this question which may indicate that this varies dramatically by individual. This limited probing for details may also be the reason that men seem disinterested in stories.

Question # 3- What do you think is the primary reason for communication differences between men and women?

Forty-two percent of women and 35% percent of men attribute differences to nature. Sixty-seven percent of women and 61% percent of men attribute communication differences to nurture. Many of the individual comments suggest that a combination of both nature and nurture is the cause for differences.

Comments

The statements that respondents were reacting to were chosen due to their link to a biological factor found in the research. If the survey statements were linked to a biological factor, the researcher may have seen very different results. The researcher was struck by the passion that arose around this subject in both survey respondents and colleagues. When the thesis topic was mentioned, many people commented on how interesting the research must be and how often they had thought about this same topic. Both male and female colleagues had examples of their experiences in communicating with the opposite gender and how complicated it could be at times. They confirmed some of the research in earlier chapters without realizing there may be a biological connection. Below are some intriguing comments from survey takers on their perception of gender communication differences.

Several survey participants indicated that most of the statements were generalizations and/or stereotypes. They also mentioned that if the survey had used fewer absolute statements, the results would have been significantly different. For example, using a statement like “women tend to be more emotional” may have prompted more respondents to agree. Although many of my respondents stated that they thought the statements were generalizations, they used stereotypical statements in their comments. For example, one participant stated the following:

“While I think your basic assumptions are correct - I do think there are exceptions to these statements - some men are more like women in their communication

styles and vice versa- some women are more masculine in their communication styles. I also feel that this style can be taught and learned if the individual is willing.”

In the previous comment, the respondent states that there are masculine and feminine ways of communicating and these differences are clearly defined. This comment suggests that differences are shaped by society and they can be learned and unlearned.

“I have been a social worker in the field for over 10 years. It has been my experience in working with both men and women that there is an obvious difference in their styles of communication. When working with people of various cultures I've seen similarities that exist in the communication styles of both sexes. Women are instinctively more aware of others and focus on the overall well being of those they are communicating with. Men seem more interested in the task at hand. Women talk first, act later. This is the opposite for men. I believe these differences are innate. It's true; society plays a role in all aspects of human development. However, these differences are displayed in extremely young children who have not been subjected to the stereotypes and labels of society.”

This respondent agrees that there are differences between men and women regardless of ethnicity or culture. They also support the notion that women are better able to connect with others and are more empathetic. They agree that men may be more impulsive by stating that women talk first and act later. Lastly, this participant agrees that gender differences are impacted by nature as evidenced by the display of masculine or feminine behavior at a very young age.

“Based upon several studies it is clear that some aspects of gender specific behavior are innate (and this is well documented by Richard De Lisi, Helen Fisher, Michael Lewis, evolutionary psychologists, and others). In addition, as you already know, theorists can confidently cite many contextual variables that also strongly influence gender-specific behaviors (norms, social psychology data, and feminist literature effectually support this assertion). I think the most important point however, lies in the multiplicative interactions between nature and nurture, which strongly influence our conversational and affective interactions. Accordingly, it is impossible to unequivocally disentangle these influences into discrete quantities. Gottlieb, Lerner and others have deftly argued this stance. In my opinion, discussion of this issue is timely in light of the belief articulated by the president of Harvard University: women are less capable in the areas of math and science. I think this assertion regarding the innate wiring of the female brain is ridiculous and reflects a wish to blame nature/nurture interactions on nature or nurture alone. For example, as women try to balance motherhood in a world of fiscal strain and neighborhood/familial distance (nurture), fewer mothers-to-be are willing to work the eighty hour per week schedules required of math and science scholars. This is not a reflection of innate deficits amongst women; rather it is a consequence of the female biological readiness to bear children in tandem with a lack of societal support.”

This respondent seems to firmly believe that the differences are minimal and they are caused by both nature and nurture. He also suggests that attempting to attribute these differences to one or the other is a mistake.

“I feel that women are ruled more by emotion, where men are more logical and seem to be emotionless at times.”

“Women by nature are made to nurture and men by nature are made to be physically stronger to take care of the family and focus on one task at a time.”

These two respondents seem to agree with some of the more stereotypical notions regarding men and women. They also suggest that the differences are innate.

“I believe that there are communication differences because of how men and women are treated from infancy. Watch anyone with babies/young children and you'll see the difference in how they are socialized.”

“I have a Ph. D. in sociology and believe that gender differences obviously play a role, but do not believe that role is unchangeable. Society can mold people into different norms, gender roles, etc.”

These two respondents agree that there are differences and they can be attributed to nurture. They support the notion of babies being socialized to communicate on gender specific ways.

“This survey encourages people to fall back on stereotypes and generalizations. You would have been more effective to give situational examples and allow

options to answer "most men" or "do you find this more often" etc. I think you'll get very biased results."

This response was not surprising, especially considering that the researcher intentionally formatted the questions to force respondents to make a choice. Overall, the survey responses varied between concurrence and firm disagreement.

Overall, the responses demonstrated how impassioned subjects are when reacting to differences between the sexes. It was interesting to find that people were offended by many of the statements, but couldn't help but agree. In a class about cross-gender communication, there was a discussion about communication differences and the societal influences on behavior and communication. The women often defended their labels, but at the same time, could not help but agree with items included in a list of stereotypical female behavior.

CHAPTER V

RESEARCH SUMMARY

To research the perceptions regarding gender differences the author reviewed two key areas: biological differences between the male and female brain and the impact of society on communication styles. Additionally, the researcher surveyed participants to find out which differences they believed to be true and what they believed the cause of the differences to be.

With regard to brain differences, some basic themes arose. The left hemisphere of the brain is where speech and comprehension are centered and the right side is reserved for visual patterns, spatial relationships and emotions. Women have a strong connection between these two hemispheres. This can lead to more connections between language and emotion and more enhanced verbal and language ability. Brain scans show that women use both the left and right sides of the brain when processing language, which could result in women communicating with greater ease. Men have a weaker connection between these hemispheres, which can lead to a stronger ability to lateralize brain activity and focus on one project or problem at a time. It may lead men to have less of a connection between emotion and language.

Women have more serotonin and oxytocin, which may cause them to be more empathetic and more interested in bonding with others. Men have higher levels of testosterone, which can impact verbal ability and communication styles at a young age. Men are more assertive in conversation, and women are more interested in building and

maintaining relationships through sharing emotion. The survey participants seem to agree with this notion since more than 75% agreed that women are more emotional.

Although these differences are mild, they may have a stronger impact on some individuals. Ninety-six percent of the survey respondents agreed that there were differences in gender communication styles. More than 60% of respondents also agreed that these differences could be attributed to societal influences. Most comments suggested that the differences were a mixture of nature and nurture. If society shapes people to communicate as women or men, how does one explain young children preferring one toy or one activity over another?

Respondents disagreed with statements that seemed disparaging to their gender or statements that made one gender seem superior. Are we afraid that if we have a biological excuse to fall back on, we will fulfill the myths associated with our gender? Could gender differences be causing men and women to communicate differently and therefore create a need for slightly different communication, interaction, and educational styles for each gender? Would using different tactics or techniques specific to gender be more effective?

Although there is research (Glass, 1992) that supports the notion that men and women are shaped by their culture, the role of nature can't be ignored. Whether or not these differences are innate or environmentally caused could be consequential. Perhaps most important is the ability to recognize these differences and react accordingly. Perhaps Yancey (1993, p.69) summarized it best when he stated, "Naturally any generalities about gender differences do not apply to all men or women. Yet we found one point of

commonality that helped us all; male-female relationships represent a classic case of cross-cultural communication.”

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APPENDIX

Zoomerang Survey

Gender Differences and Communication

There has always been controversy over the differences between men and women. Are these differences innate, or are they created by society? If there are differences, what impact do they have on behavior and communication?

In partial fulfillment of my master's degree in corporate and public communication, I am conducting a survey to complete my thesis on the impact of biological differences between men and women that may impact communication.

The information collected will be kept confidential and will be used strictly for academic purposes.

Your assistance and time are greatly appreciated. Please forward this survey to others as I need to reach a completion quota for the research to be valid.

Thank you.
Crystal Zuckerman

Gender Differences and Communication

Questions marked with an asterisk (*) are mandatory.



1

*Do you believe men and women have different communication styles? If yes, go to next question. If no, please skip to question 4.

Yes

No



2

Review the statements below and check those that you believe to be true. Check all that apply.



Men appear to be disinterested when listening

■
Women are more empathetic

■
Men are more impulsive

■
Women are better able to read the emotion of others

■
Women are emotional

■
Women converse to gain understanding and support

■
Women are more likely to bond with other women

■
Men are skilled in math and science while women have stronger language and writing skills

■
Men are more assertive when expressing their opinion

■
Men are less likely to share emotion and feelings

■
Men take words at face value without looking for deeper meaning

Women react more strongly to feedback

Men are able to focus on one project at a time and less able to multi-task

Men ask fewer questions

Women include more details when telling stories

Women can more easily recall past negative memories and experiences

Other, Please Specify



3

What do you think is the primary reason for communication differences between men and women?



Nature/innate biological



Nurture/society



Other, Please Specify



4

*What is your gender?



Male



Female



5

*What is your age?



21-30



31-40



41-50



51-60



Over 61



6

If you work in neurology, psychology, gender studies or a related field, your additional comments on this subject are welcome and greatly appreciated.

