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SEPTEMBER 11, 2001: AN INDIVIDUAL MEDIA DEPENDENCY PERSPECTIVE

by

Tyrone H. Glade

A thesis submitted to the faculty of Brigham Young University  
in partial fulfillment of the requirements for the degree of

Masters of Arts

Department of Communications

Brigham Young University

December 2004

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BRIGHAM YOUNG UNIVERSITY

GRADUATE COMMITTEE APPROVAL

of a thesis submitted by

Tyrone H. Glade

This thesis has been read by each member of the following graduate committee and by majority vote has been found to be satisfactory.

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As chair of the candidate's graduate committee, I have read the thesis of Tyrone H. Glade in its final form and have found that (1) its format, citations, and bibliographical style are consistent and acceptable and fulfill university and department style requirements; (2) its illustrative materials including figures, tables, and charts are in place; and (3) the final manuscript is satisfactory to the graduate committee and is ready for submission to the university library.

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## ABSTRACT

### SEPTEMBER 11, 2001: AN INDIVIDUAL MEDIA DEPENDENCY PERSPECTIVE

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This study uses individual media dependency (IMD) to examine student dependency on the media before and during the attacks of September 11. A content analysis of media journals kept by a group of university students during the week of September 11 confirmed the existence of the IMD relationship, a finding that adds to the methodological breadth of IMD research. Goal scope, which is composed of the understanding, orientation, and play goals narrowed to the goal of social understanding on September 11 only to expand outwards to pre-September 11 levels by the end of that week. The theory postulates goal scope to be comprehensive, but student-identified reasons for seeking out the media during the week of September 11 were not fully explained by goal scope. Dependence on news mediated sources followed the pattern of goal scope with students articulating a tremendous dependence during the attacks, only to be followed with a sharp decline in time spent with news media by the end of the week.

Contrary to hypothesis 4, referent scope did not narrow at all during that week. However, the media diaries revealed television was the referent of choice among students for information about the attacks. Time spent with television followed the patterns of goal scope and dependence on news mediated sources—a sharp increase in time spent with television was followed by a comparable decline in time spent.

Student reflection papers were analyzed to understand why students returned so quickly to former media consumption patterns. Weariness with the reports and images surrounding the attacks, disappointment with the lack of new information, and the obligations of being a student were among the reasons given in the reflection papers. Despite the quick return to pre-attack levels of media consumption, students wrote that the media presentations of the attacks had broad cognitive, affective, and behavioral effects.

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To my good friend and coder Jeremy Shakespear, I say thank you. I thank him for always being willing to listen to me when I needed to vent some frustration. Best of



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## CHAPTER I

### Introduction

September 11, 2001 has joined the ranks of catastrophic events in U.S. history, destined to become another chapter alongside the explosion of the space shuttle *Challenger*, the assassination of JFK, and the bombing of Pearl Harbor. The tragedy and its aftermath will be written about, discussed, debated, and theorized over for years to come. “The tragedy of that day has left all Americans with a permanent image of where they were when the towers fell, and likely will mark the end of one historical period and the beginning of another” (Horatio Alger Association of Distinguished Americans, 2001). The collapsed buildings not only left a void in the New York City landscape, but in the lives of Americans. People across the country crowded in front of television sets waiting for information of any kind. Terry Sweetman, a columnist for the *Courier Mail* in Australia, said “the pressing concerns of the moment were the demand for more information and the conflicting need for a bathroom visit . . . somehow, the terrible images of New York were reduced to the magic of a movie set” (2001). Sweetman’s words echo the sentiments that many felt that day.

With the fall of the buildings came a drastic rise in the consumption of media for information related to the attacks. On September 11 and the days that followed, 81% of Americans turned to their television for the majority of the information and updates they received about the attacks, while 11% of Americans reported receiving most of their information from the radio. Only 3% of the U.S. population reported using the Internet as their main source of information about the attacks (Tompkins, 2001). Arbitron reported

that during the week of September 11 “viewership in its portable people-meter test market of Wilmington, Delaware, jumped 350 percent on September 11 compared to the previous three Tuesdays,” and radio listening jumped 23% in the same test area (Bachman, 2001).

A study conducted by the Horatio Alger Association of Distinguished Americans surveyed 308 high school students to evaluate how the disaster had affected their lives. The study found that 75% of the students felt that the attacks were the “most significant event in their lifetimes, even when weighed against other significant incidents such as the Oklahoma City bombing, the Columbine shootings, and the impeachment of former President Clinton” (2001). The study also found that 54% of students felt that the attacks had directly affected their lives a great deal or fair amount; only 12% felt that the attacks had not affected their lives. While it is unquestioned that the events of September 11 had a tremendous effect on the American public as a whole, how did individuals describe their interactions with the media that week?

In a Poynter Institute article published online on September 20, 2001, students from the University of South Florida told how they felt about the media coverage of September 11. Michael Frimpter, 26, said,

The day in question was the first time that I actually sat down and watched the news for a long period of time, 10 hours to be exact. The point is that the media captured my interest, which it never has before. Maybe it was the situation, but I now like the news. (White, 2001)

While some students felt that the media coverage benefited their knowledge and awareness of the situation, others felt that there was too much coverage all together.

Melissa Davis, 20, wrote,

Some of us can only see so much of the footage from the attack before it makes us even more sick and outraged. While I watched the news for around six hours, one station had a freeze-frame clip from one of the tapes. It was a body free-falling from (the) window and floating in midair. It stayed on the screen for five minutes while the reporters spoke of the incident. (White, 2001)

This study sought to address how a group of university students interacted and reacted to the media coverage during the week of September 11. Do the comments of Frimpter and Davis reflect the extremes of students' experiences with the media during that week, or is one or the other the norm?

To answer this question and others, media consumption diaries kept the week of September 11 by university students were analyzed using Media System Dependency. As part of a Communications 101 class at Brigham Young University during fall semester 2001, students were assigned to keep a media diary detailing their media consumption for a week. After completing the diary, the students were to write a short paper analyzing their media consumption. A number of students happened to be keeping their media consumption diaries during the week of September 11. An initial analysis of the diaries revealed that September 11 and September 12 saw drastic increases in the amount of time spent with various media, but by September 14 some students had returned to pre-September 11 media consumption patterns. Wondering why, the researcher chose to



content analyze the diaries using Media System Dependency. The theory of Media System Dependency (MSD) was chosen for two reasons: the Media System Dependency definition of dependency and the theoretical position that states under what conditions an individual's media dependency intensifies.

Within Media System Dependency, dependency is defined as “a relationship in which the satisfaction of needs or the attainment of goals by one party is contingent upon the resources of another party” (Ball-Rokeach & DeFleur, 1976, p. 6). Consequently, the goals of individuals are seen as being contingent upon the resources of the media. The events of September 11 intuitively caused individuals to depend on the media for information about the attacks.

Secondly, the theory postulates that a person's individual media dependency (IMD) becomes more intense under two conditions: whether “a relatively high degree of change and conflict is present in a society” and whether the message is central to the individual (Ball-Rokeach & DeFleur, 1976, p. 6 – 7). Sandra Ball-Rokeach, principal author of the theory stated, “Media System Dependency theory is not so much a theory of powerful or weak effects as it is a theory of media power. The theory concerns the conditions that give rise to media power and the conditions that constrain media power” (1998, p. 15). Power is based on dependency—in the media/individual relationship, dependency upon the media weakens the power of the individual. The events of September 11 naturally gave rise to media power. Moreover, September 11 without question represented “a relatively high degree of change and conflict” (Ball-Rokeach & DeFleur, 1976, p. 7). Because of the high degree of change and conflict created by September 11, the students naturally gravitated towards the media system for information

about the attacks. This study examined how students' media dependency changed over the course of the week of September 11.

## CHAPTER II

### Literature Review

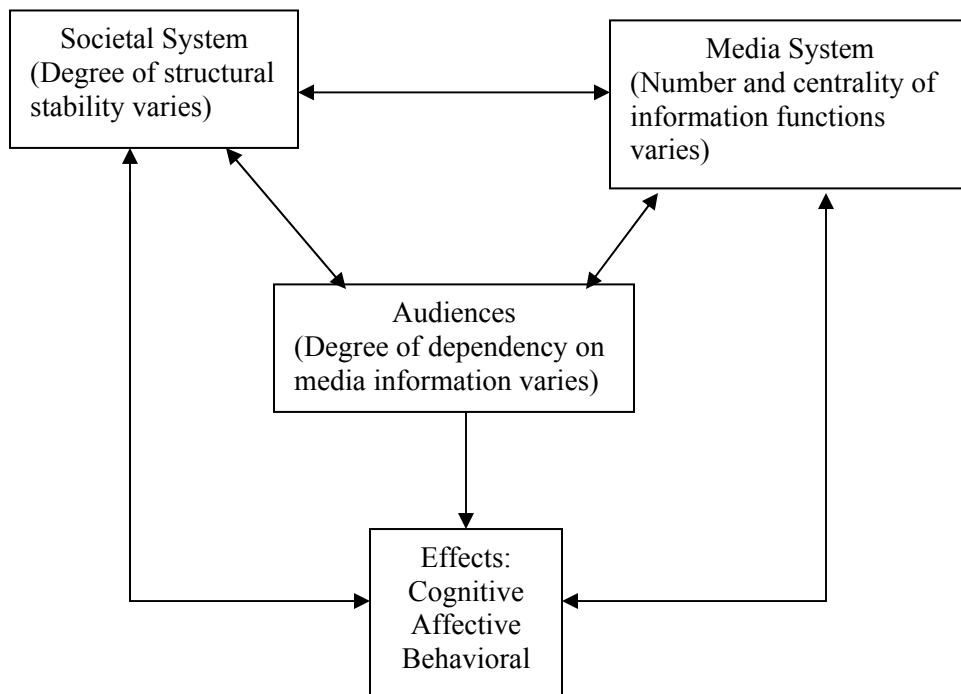
#### *Media System Dependency*

The foundations of what was to become Media System Dependency theory were laid in 1967-1968 when Sandra Ball-Rokeach was working on her dissertation. Having examined structural and psychological ambiguity, Ball-Rokeach had come to view “individual and social reality as precarious and volatile.” She saw individuals who were full of ambiguity “due to the conditions of structural alienation, conflict, and change over which they had no direct control,” and wondered how they could “be masters of their own reality construction of media or any other texts” (Ball-Rokeach, 1998, p. 9).

Ball-Rokeach observed that the reality of the Vietnam War for individuals and interpersonal networks was constructed and constrained by the media system. The media system in turn, was constrained by the state and its military arm. Early in the war, the media system was dependent upon the state for information about the war (i.e. press releases, press conferences, and interviews) which created an asymmetrical relationship between the two. When the media began to employ their own resources to gather information about the war, the dependency relationship between the media and state shifted towards symmetry (1998). This dependency shift between the media system and the state affected the construction of reality of the Vietnam War for interpersonal networks and individuals. Ball-Rokeach concluded that relationship changes in these macro systems created changes in individual and interpersonal network dependency relations. “As the legitimacy of the war became more open to question or more problematic, individual and interpersonal network relations intensified because

individuals and groups required access to media information resources to resolve their ambiguities about the meaning of the war” (Ball-Rokeach, 1998, p. 14).

From these observations and ideas, the theory of Media System Dependency was created. Media System Dependency (1976), hereafter referred to as MSD, was first published by Sandra Ball-Rokeach and Melvin DeFleur. Ball-Rokeach and DeFleur (1976) felt that in order to establish media effects, research should focus on the audience as an integral part of a larger social system. They postulated that it is possible to look at the effects of media on people and society by examining the relationships between the media, audiences, and society. The nature of this tripartite relationship emphasizes the concept of dependency by the audience on the resources of the media for information (Ball-Rokeach & DeFleur, 1976). They visualized their theory with the following diagram.



*Figure 1.* Tripartite relationship between the societal system, media system, and the audience. (Merskin, 1999, as cited by Demers & Viswanath, 1999, p. 81)

The greater the audience or individual dependency upon the resources of the media for information, “the greater the likelihood that the information supplied will alter various forms of audience cognitions, feelings, and behavior” (Ball-Rokeach & DeFleur, 1976, p. 6).

While most research using MSD has used the individual as the focus point, there have been several studies that have looked at the dependency relations that exist between structures. Bait-Almal (1986) examined the cooperative television efforts of several Arab countries. Cambridge (1989) studied the “interrelationships that exist among the Jamaican radio systems, the government, the private sector, the creative talent, and the audience in the creation, broadcast, and consumption of Jamaican radio soap operas” (Abstract, para. 1). Mattos (1982) examined the relationship between Brazilian mass media and the military regime that gained power in 1964. Ball-Rokeach, Hale, Schaffer, Porras, Harris, & Drayton (1999) used MSD to identify the dependency relations between the commercial and informational components of the traffic report production system in Southern California. Identifying these structures and their power (asymmetrical or symmetrical) within the dependency relationship assisted the researchers in creating and implementing a plan to change the production of radio traffic reports to counter aggressive driving.

### *Individual Media Dependency*

Individual Media Dependency (IMD), “is a theory about the determinants and the consequences of this (dependency) relation: its formation; variation across individuals, time, and situation; and its consequences” (Ball-Rokeach, 1998, p. 17). Ball-Rokeach (1998) defined IMD as “the extent to which attainment of an individual’s goals is

contingent upon access to the information resources of the media system, relative to the extent to which attainment of media system goals is contingent upon the resources controlled by individuals” (p. 18). This relationship is highly asymmetrical however, “with individuals having a multitude of goals that are contingent on the information resources of the media and the media system having goals that are not directly contingent on the resources of the average member of its audience” (Ball-Rokeach, 1985, p. 494). The media system is conceived as an information system that exhibits control over three types of information resources that individuals depend upon to fulfill their goals: information gathering or creating, information processing, and information dissemination (DeFleur & Ball-Rokeach, 1989; Ball-Rokeach, 1985).

Thus, the IMD relation is always seen in light of the existing conditions of structures (i.e. media, political, and economic) from which they must operate. “Peoples’ social realities are regarded as not only a product of their social histories and current systems of symbolic interaction, but also in being fundamentally connected to the structural conditions of the society to which they live,” (Ball-Rokeach & Defleur, 1976, p. 4). In addition to structural conditions, an individual’s social environs, interpersonal and individual factors are variables in the dependency relation (Ball-Rokeach, 1985; Ball-Rokeach, 1998). The degree to which the social environment is threatening or ambiguous should affect the intensity of the IMD relationship. Threat and ambiguity will be discussed in greater detail later in this chapter.

As part of an interpersonal network, individuals’ goals are influenced by the focus of the network dialogue. Individuals who belong to interpersonal networks where the focus of discussion is sports are likely to have different dependency relations with the

media than those whose focus is politics (Ball-Rokeach, 1985). Individual factors such as class, life cycle stage, and lifestyles are hypothesized to have effects, albeit minor effects on an individual's dependency relation (Ball-Rokeach, 1985; Ball-Rokeach, 1998). Other individual factors that can mediate the dependency relation of the individual are psychological factors—perceived utility of the media message, and the credibility of the media source (Ball-Rokeach, 1998). Finally, the extent that the individual has access to alternative information systems, or expert networks will affect the characteristics of the dependency relationship (Ball-Rokeach, 1985; Ball-Rokeach, 1989).

In the IMD relationship, the individual is an active problem-solver who is imbedded in interpersonal influence networks and a media environment (Ball-Rokeach, Rokeach, & Grube, 1984). As an active problem solver, the individual is dependent to varying degrees upon the media system's information resources for the attainment of goals. "Goals are the key dimension of individual motivation conceived to underlie media system dependencies," (Ball-Rokeach, et al., 1984, p. 8). Ball-Rokeach conceives of three types of dependencies on the media, each of which has two subtypes:

1. Understanding Dependency
  - a. Self-understanding
  - b. Social understanding
2. Orientation Dependency
  - a. Action orientation
  - b. Interaction orientation
3. Play Dependency
  - a. Solitary play

## b. Social play

Ball-Rokeach delineates between personal and social goals because of differing motivations and actions. She explains, “Human beings are motivated to understand themselves and their social environments. They use these understandings in orienting their actions and interactions with others” (Ball-Rokeach & DeFleur, 1989, p. 306).

The goal of social understanding is defined as the degree to which an individual is dependent on the media system for information about the social environment in which he or she lives in. Such information is necessary to “act or anticipate acting (in the social environment), because meaningful social action cannot occur in the absence of a definition of a situation” (Ball-Rokeach et al., 1984, p. 8).

The goal of self-understanding is concerned with the media’s role in producing and distributing information that is relevant and helpful for understanding oneself. Such topics might include “staying mentally and physically fit, learning to be assertive and self-confident, getting to know oneself as a sexual and social being, learning to overcome personal crises and failures, learning to be a better single parent, and more generally, learning to actualize oneself through work, hobbies, and personal relations” (Ball-Rokeach et al., 1984, p. 8).

Orientation goals differ from understanding goals in that understanding goals deal in cognitions, whereas orientation requires the individual to act or interact (Ball-Rokeach et al., 1984). Action Orientation goals are dependencies upon the media for information about such things as “goods and services, recreation, everyday coping behavior, crisis behavior, and self-defense” (Ball-Rokeach et al., 1984, p. 9). Interaction orientation goals



refer to turning to the media to satisfy the need for information on how to interact with others in our society (Ball-Rokeach et al.).

In today's society large numbers of people devote much of their involvement with the media to play dependencies. Solitary play refers to using the media to "obtain pleasure, esthetic enjoyment, excitement, or relaxation," while social play deals with using the media as a "facilitators of social intercourse" (Ball-Rokeach et al., 1984, p. 10).

Goal scope (understanding, orientation, play) is conceived as being comprehensive, but not mutually exclusive, (Ball-Rokeach et al., 1984; Ball-Rokeach, Grant, & Horvath, 1993; Loges, 1994). Any media message may serve more than one dependency goal. Most research to date using IMD has examined "how individuals, at one point of time, exhibit relations with the media to attain none, some, or all of their goals" (Ball-Rokeach et al., 1993, p. 5). Demographic variables have had little power to explain the goal scope and intensity of the IMD relationship (Ball-Rokeach, 1998; Loges & Ball-Rokeach, 1993).

Ball-Rokeach and DeFleur (1976) theorized that under two specific conditions media messages become more powerful and thus strengthen the dependency relationship. Centrality of the message is predicted to affect the intensity of the dependency relation. They define centrality as media information that is more "essential than others for societal and individual well-being" (p. 6). They hypothesized that "the greater the number and centrality of the specific information—delivery functions served by a medium, the greater the audience and societal dependency on that medium" (p. 7).

Several studies have examined the issue of media centrality and have found centrality to be predictive of media exposure (Grant, Guthrie, & Ball-Rokeach, 1991;

Skumanich & Kintsfather, 1998). Morton and Duck found that personal health beliefs about skin cancer were contingent upon on how useful the content was for goal satisfaction (2001).

Studies looking at social contextual variables include studies where variance of the dependency relation differs in accordance to location within the social structure. Loges and Ball-Rokeach (1993) found in their newspaper readership study that affluence and sex were predictors of seeking out newspapers for social understanding goals. Males and the more affluent participants in the study identified intense social understanding relations with newspapers which led to more reading. Women and the less affluent were reading newspapers, but not for social understanding goals. Morton and Duck (2000) examined individuals within the gay community and how their dependency on the gay media for information about safe-sex practices was a predictor of their attitudes towards safe-sex practices. Halpern's (1994) study found that leftists' dependency on the pro-government media system in the military-ruled regime of Chile (1971 – 1990), contributed to the rightism of their political opinions, and how 'right' they felt the political environment was.

A high degree of change and conflict in a society is the second condition that is postulated to lead to heightened dependency (Ball-Rokeach & DeFleur, 1976). Past studies that examined the condition of instability are particularly salient for this study. Hirschburg, Dillman, and Ball-Rokeach (1986) conducted a study of how people in the eastern Washington area dealt with the pervasive ambiguity created by the eruption of Mount St. Helens. The researchers defined ambiguity as "a problem of either insufficient information to define a situation or insufficient information to select one definition of a

situation as opposed to another” (p. 118). Hirschburg et al. hypothesized that the mass media would be the “primary information system employed by persons seeking to resolve ambiguity,” (hypothesis 1) and that “when information is insufficient to resolve ambiguity, people will nonetheless continue to look to the media for ambiguity-resolving information” (hypothesis 2) (p. 119). Data were collected through 1,023 telephone interviews between June 18 and July 22, 1980. The participants were asked about their “information-seeking activities on or several days after the original May 18 Sunday eruption” (p. 120). The results confirmed that a majority of the study’s participants relied on the media system (television and radio) for information about the eruption, “even when the resources did not immediately resolve their ambiguity” (p. 121).

In his 1994 article, *Canaries in the Coal Mine: Perceptions of Threat and Media System Dependency Relations*, Loges examined perceptions of threat in relation to MSD relations. Loges defined threat as having three dimensions; danger, conjecture, and personal vulnerability. He hypothesized that threat would be “positively related to the intensity of MSD relations in all substantive motivations (understanding, orientation, and play)” (p. 9). Secondly, Loges felt that “threat is positively related to the width of the substantive scope of MSD relations,” meaning that individuals who felt threatened would seek information across all goals to reduce perceived threat (p. 9). He found moderate but consistent support for his hypothesis that “higher perceptions of threat in the environment are associated with more intense MSD relations” (Loges, 1994, p. 17). The study failed to support the second hypothesis however. Loges found that increased perceptions of threat led to a narrowing of the goal scope along one or two dimensions, namely understanding

and orientation goals. Loges concluded that this finding “suggests a path for future research” (p. 18).

Similar to the present study, Lowrey (2004) examined dependencies upon the media after September 11. Lowrey hypothesized that certain demographic variables (socioeconomic status and amount of social capital) would weaken the dependency relationship on the media during the crisis. He also hypothesized that “the greater the degree of familiarity with a media form (television, radio, the Web, and print media), the greater the dependency on that same media form in an uncertain environment” (p. 345). Data were collected two months after the attacks via a telephone survey instrument. Lowrey found no support that socioeconomic status and amount of social capital weakened the media dependency relationship. Familiarity with a media form proved to be a predictor of dependency on that form after the attacks for print media, radio, and the Internet, but not television. Lowrey found that degree of threat was the greatest predictor of television dependency (p. 348).

#### *Research Questions and Hypotheses*

The literature review revealed that a content analysis has only been employed once in studies using MSD, whereas all other studies have employed a survey instrument. Ball-Rokeach et al. (1999) used a content analysis as a means to discover “the messages that were being sent to drivers by radio traffic reports” (p. 233). The results were used to develop an intervention program to change media production policies to “counter driver dispositions to drive aggressively” (p. 229). An intervention conference was held to encourage participation of organizations associated with the production and dispersion of traffic reports to adopt new policies for the framing of traffic reports. Three months after

the conference, another content analysis was conducted to determine if traffic reports had changed since the initial analysis. In this case, the content analysis was used to describe the communication content of traffic reports.

This study used a content analysis to establish the existence of the IMD relationship. Although research on MSD and IMD has previously used survey instruments, Ball-Rokeach et al. (1993) recognized the value of other methods. “The MSD relation is an abstraction that cannot be observed directly at the micro level. It may only be inferred from individuals’ statements about their relations with the media” (p. 2). They continue,

The MSD relation concept implicitly suggests that it is the qualitative nature of media relations that we must capture. Quantity-based measures should, according to this logic, be less sensitive indicators because they tell us little about the goals that motivate individuals to establish media relations. (Ball-Rokeach et al., 1993, p. 8)

Messariss (1977) criticized survey instruments, saying that the participants become self-analysts. He points out that when a participant is “asked a question such as, ‘Why do you watch the 7 o’clock news?’ The demand to produce a reason for a certain action forces the respondent to view that action as the outcome of a decision—or, alternatively, to ‘admit’ to having surrendered the decision to others” (p. 320). Messaris believed that in forcing participants to produce reasons for media behavior, the participant may invent or borrow them. Another concern with the survey methodology is the fact that the statements made by participants “are typically retrospective generalizations, subject to distortions because of imperfect recall or improper classification” (p. 320).

A content analysis of media diaries kept by a Communications 101 class at Brigham Young University during the week of September 11 was conducted to test the researcher's hypotheses. While content analysis is still a quantity-based measure, the students were not reflecting on why they depended on the media during the week of September 11 in their media diaries. Their statements were treated as "symptoms of the existence" (Messaris, 1977, p. 320) of the IMD relationship. The researcher, not the participants, will infer meaning from their statements. Using a content analysis to test for the existence of the IMD relation led to the first research question.

Research Question 1: Is the theory of IMD supported when another methodology is used?

The researcher will use statements from the reflection papers to strengthen the inferences made about the IMD relationships of the students. While the reflection papers were retrospective in nature, thus subject to the imperfect recollections of the students, Messaris (1977) argues that under times of disruption of normal media patterns, people's awareness of what occurs is heightened. Further, as Ball-Rokeach et al. (1993) state, the IMD relation is concerned with the qualitative nature of media relations. The reflection papers will allow the researcher to examine the goals that motivated individuals to establish relations with the media during September 11. Having the ability to examine the goals of the students led to the development of a second research question. The IMD typology claims to be comprehensive, but not mutually exclusive (Ball-Rokeach et al., 1984, Ball-Rokeach, Grant, & Horvath, 1993; Loges, 1994), meaning that individuals don't establish dependency relations with the media outside of the goals of

understanding, orientation, and play, but do the statements of the students reflect that assertion?

Research Question 2: Is the IMD typology comprehensive during a time of pervasive ambiguity when the words of the students are analyzed?

A final research question arose from the assertion made by MSD that the greater the individual is dependent upon the media for goal fulfillment, the greater the likelihood that the media will have some sort of effect—cognitive, affective, or behavioral (Ball-Rokeach & DeFleur, 1976; Ball-Rokeach et al., 1984; DeFleur & Ball-Rokeach, 1989). Grant, Guthrie, and Ball-Rokeach (1991) and Skumanich and Kintsfather (1998) both found that the development of the IMD relationship with the genre of home shopping was predictive of buying behaviors. Lowrey (2004) found that the pervasive ambiguity created by the events of September 11 were predictive of attitudinal and behavioral changes such as: uneasiness about handling mail, flying and contributions to charities. Again, these results were gathered through means of a survey instrument. How did the students themselves describe the effects of September 11? Do the reflection papers describe changes in attitudes, perceptions, (cognitive effects) or the expression of fear, hatred, confusion, (affective effects), or changes in behavior patterns?

Research Question 3: Do students describe the events of September 11 as having cognitive, affective, and behavioral effects?

Based on the previous IMD literature, it can be assumed that the dependency relationship will intensify under conditions of threat or pervasive ambiguity and that understanding and orientation goals will be particularly salient during crises (Loges, 1994; Lowrey, 2004). Definitionally, the goal of social understanding lends itself to the

circumstances of September 11. Individuals wanted to know what was going on in their social environment. From these findings it is hypothesized that:

Hypothesis 1: There will be a significant increase in the time spent with the goal of social understanding between September 11 and the other days of the week.

Subsequently, it is hypothesized that in order to fulfill their need for social understanding, students will turn to news sources.

Hypothesis 2: There will be a significant increase of student dependency on news sources between September 11 and the other days of the week.

As was discussed earlier, Loges (1994) hypothesized that perceptions of threat would be “positively related to the width of the substantive scope of MSD relations” (p. 9). Finding the opposite to be true suggested an area of future research. Loges concluded that during times of threat, “some people may show increases in intensity for social understanding as they seek to obtain knowledge about threatening conditions. Others may show increases in intensity for play as they seek to divert themselves from thoughts about the same conditions” (p. 18). This study will examine the goal scope of students during the week of September 11 with the expectation that goal scope will narrow during September 11 as students become dependent on the media system for information about the attacks.

Hypothesis 3: Goal scope will narrow significantly between September 11 and the other days of the week.

Finally, Hirschburg et al. (1986), Loges (1994), and Lowrey (2004) each examined dependency for a limited number of referents. Hirschburg et al. examined dependence upon the media system for television and radio after the eruption of Mount St. Helens, while Loges examined perceptions of threat among newspapers, TV, radio, and



magazines. Lowrey studied dependency after September 11 among TV, radio, web, and print media. Using a content analysis allows the researcher to expand the number of referents examined. The total number of referents studied will depend on the number of referents identified from the media diaries. However, it is believed that the content analysis will reveal a narrowing of the referent scope (number of media forms identified) during September 11 because certain referents lend themselves to greater goal satisfaction than others. In expanding the literature on referents, it is hypothesized that:

Hypothesis 4: The referent scope will narrow significantly between September 11 and the other days of the week.

Among the referents examined, it is believed that the results of the content analysis will produce findings congruent with the studies of Hirschburg et al. (1986) and Lowrey (2004) where TV was found to be the referent most depended upon to resolve ambiguity.

H5: Among the referents, time spent with TV will be significantly greater on September 11 than the other days of the week.

## CHAPTER III

### Method

This study used a quantitative content analysis of media diaries and a qualitative analysis of reflection papers to give meaning to the reported behavior kept by students during the week of September 11. The data collection was modeled after Massey's 1995 study of how students in a Media and Society lecture course used the media during the California Loma Prieta earthquake of 1989. Similar to Massey's study, students in the present study were assigned to complete a 5-day media diary, wherein they recorded all their media consumption. Based on the diary, students were then to write a reflection paper discussing self-insights they gained concerning their media consumption.

#### *Content Analysis*

Each semester, a professor at Brigham Young University assigns his Communications 101 students to keep a media diary of their interactions with the media during a five-day period. Each entry in the diary is to include: where the student is at the time, what medium is used, how long the experience lasts, with whom (if anyone) the experience is shared, and a brief description of what occurred during the experience (see Appendixes A and B). The diary was to be typed. After keeping track of their media interactions for a week, students were then asked to write a reflection paper about their media consumption for the week. The reflection paper asked the students to detail the nature of their interaction with media during the five day period and examine what it meant to them. Specifically, the students were asked to focus on the media they used, and what they expected to get from each medium (see Appendix C).

In the fall semester of 2001, the Communications 101 students had the choice to keep their diaries either the week of September 10 – 14 or September 17 – 21. Sixty six students chose to keep their diaries during the week of September 11. Of the 66 that kept their diaries during the week of September 11, 48 turned in both a diary and reflection paper. The 66 diaries were used for the content analysis and the 48 reflection papers were used to draw meaning from the results of the content analysis.

### *Operational Definitions*

The independent variables were the days of the week. September 11 was the variable that was predicted to have the greatest impact on media dependency behavior. The independent variables were measured by the day-by-day events of the students' diaries of the week of September 11. The dependent variable was defined as the dependency relationship of each student. Dependent variables were measured according to the following criteria: dependency on news mediated content, time spent with the goal of social understanding, goal scope, referent scope, and time spent with television. These will be defined in greater detail later in this section. To analyze the diaries, the unit of analysis was each media interaction listed in the students' media diaries. A media interaction was defined as each entry in a student's media journal in which the student interacts with a medium/media (see Table 1).

Table 1  
*Example of a Media Interaction from a Media Diary*

Time (Total)	Location, People	Medium	Description of Content (brief description of content & target audience)
10 - 10:20 a.m. (20 min.)	HFAC, by myself	Newspaper	Read the college paper, mostly about the new addition to the library and about the basketball team's preparation for the game on Saturday. This is targeted to college students.

In Table 1, the student read the student-run newspaper for 20 minutes, examining two different articles.

To determine goal scope of an interaction, an 18-point scale that was developed by Ball-Rokeach et al. (1993) was utilized. The scale uses three questions for each goal and subtype to measure the dependency relationship.

*Social Understanding*—Stay on top of what is happening in the community? Find out how the country is doing? Keep up with world events?

*Self Understanding*—Gain insight into why you do some of the things that you do? Imagine what you'll be like as you grow older? Observe how others cope with problems or situations like yours?

*Interaction Orientation*—Discover better ways to communicate with others? Think about how to act with friends, relatives or people you work with? Get ideas about how to approach others in important or difficult situations?

*Action Orientation*—Figure out what to buy? Decide where to go for services, such as health, financial, or household? Plan where to go for evening or weekend activities?

*Social Play*—Give you something to do with your friends? Be a part of events that you enjoy without having to be there? Have fun with family and friends?

*Solitary Play*—Unwind after a hard day or week? Relax when you are by yourself? Have something to do when nobody else is around?

Each interaction's description was examined using these questions and then coded as a social or self understanding, action or interaction orientation, or social or solitary play goal.

Referent scope was defined as the mass medium that was used to satisfy the goals of understanding, orientation, and play. The scale that was created in 1993 by Ball-Rokeach and her associates limited the referent scope to newspapers, radio, magazines, and television. For the purpose of this study, it was found necessary to expand the types of media to reflect student use. Eventually 13 referents were decided upon. A delineation was made between news content and other content for specific media (television, radio, Internet, magazines) in order to answer the first hypothesis.

*Newspaper*—Includes local, national, and campus newspapers.

*TV*—Includes all network or cable programs that cannot be defined as news.

*TV news*—Defined as all news broadcasts regardless of channel.

*Radio*—Operationalized to include all AM or FM content that cannot be categorized as news.

*Radio news*—All news broadcasts on either AM or FM.

*Internet news*—All sites that are specific to news such as: CNN.com, MSNBC.com, etc. Also includes newspaper websites.

*Internet*—All other sites visited excluding email and instant messaging. Email and instant messaging were excluded because they are not usually considered mass media.

*Books*—All textbooks, novels, handouts, scriptures or other written materials that students used.

*Movie media*—Movies seen in a theater, VHS tapes or DVDs.

*Recorded music media*—Music listened to with the source being a CD, a tape cassette, or mp3 files saved on a computer

*News Magazines*—Magazines such as US News, Time, Newsweek, etc.

*Magazines*—All other magazines used by students.

*Other*—All other media forms not included above, but mostly interactive computer programs used in conjunction with a class, and computer games.

Each referent identified within an interaction was then coded accordingly.

### *Coding Scheme*

Because the goals of IMD are comprehensive, yet not mutually exclusive, each interaction had the potential to be coded as more than one goal. In order to conduct a content analysis it was necessary to make the coding categories exclusive (Wimmer & Dominick, 2003). To remedy the problem, the *primary goal* of each interaction was

determined using the 1993 Ball-Rokeach et al. scale. For example, reading the college paper could satisfy multiple goals, but what is the primary goal of the interaction? “Find out what is going on in the community,” is the question that most aptly applies, making it a social understanding goal. Next, the referent for the interaction was recorded. The referent for this interaction would be newspaper. The time was then allotted on the coding sheet (see Appendix D) with twenty minutes assigned to social understanding, and twenty minutes being assigned to newspaper.

Table 2  
*Example of Media Interaction Where Multiple Goals are Satisfied by one Medium*

Time (Total)	Location, People	Medium	Description of Content (brief description of content & target audience)
7:12 – 7:50 p.m. (45 min.)	Bedroom, by myself	Internet	Went to CNNSI Website to check up on my favorite East Coast sports teams. Went to ESPN Fantasy Games site to update my fantasy league teams. (These sites are mostly aimed at males.) Checked the Comms 101 website for any announcements for class tomorrow.

The researcher faced a challenge regarding an interaction where there were multiple goals present within one interaction (see Table 2). What is the primary goal in this interaction? While there was only one medium used, several websites were visited. Each website visited had a different goal associated with it. What would the primary goal be of looking up a favorite East Coast sports teams? Once again, “Find out what is going on in the community,” seemed to be the question most aptly answered by the description, placing it in the category of social understanding. The primary goal of updating fantasy

league teams most aptly fit the category of action orientation. While updating fantasy league teams did not neatly answer any of the questions the 1993 scale has for action orientation, it appeared to belong there more than anywhere else. The final website, the Communications 101 site, seemed to belong in the social understanding goal category as well. In this case, the community the student was seeking information about was the Communications 101 class. While all forty five minutes of the interaction was spent on websites, the time still needed to be divided between the goals. To split the time, the goal associated with each website was allotted an equal amount of time from the total time amount. Fifteen minutes was allotted to social understanding for the CNNSI site, fifteen minutes was allotted to action orientation to update fantasy league teams, and another fifteen minutes was allotted to social understanding for the Communications 101 site.

A final challenge involved an interaction with multiple goals and multiple referents (see Table 3).

Table 3  
*An Example of a Media Interaction that Incorporates Various Media and Goals*

Time (Total)	Location, People	Medium	Description of Content (brief description of content & target audience)
7:00 – 7:50 p.m. (50 min.)	Bedroom by myself	Internet and CD	Went to CNNSI Website to check up on my favorite East Coast sports teams. Went to ESPN Fantasy Games site to update my fantasy league teams. (These sites are mostly aimed at males.) Checked the Comms 101 website for any announcements for class tomorrow. While surfing, listened to Miles Davis CD.



In this case, the total time was first split between the two referents, and then among the goals. Thirty minutes was allotted to listening to the Miles Davis CD, and thirty minutes would went the Web. While the student may list both websites and music in one media interaction, psychology explains that the student cannot focus completely on both at the same time. The rationale for dividing the time between the referents came from the psychology literature. Rubinstein, Meyer and Evans (2001) found that multitasking actually takes more time than focusing on one task. The researchers found that for all types of tasks, the subjects lost time switching between one task and the other. Thus, when a participant multitasked with a number of media, they were not able to focus on both with the same amount of attention. The media diaries did not explain how much attention was given to each referent where multitasking was described, so the researcher chose to divide the time into equal portions among the referents. How to divide the websites among the goals was previously discussed.

Several types of interactions were difficult to categorize with a primary goal: reading textbooks, reading scriptures, *ESPN* broadcasts, downloading video or audio files from the Internet, and broadcasts transmitted from the university or the LDS Church.

Why does one read a textbook? To understand themselves better, to figure out what is happening in the community, to discover what to buy or how to interact with others more effectively? Reading a textbook, an interaction that was often cited by the participants, did not answer any of the questions on the Ball-Rokeach et al. 1993 scale easily. It was decided upon for the sake of consistency, that reading textbooks was to be categorized as a social understanding goal. While it did not answer any of the questions

easily, “Stay on top of what is going on in your community,” was the best choice. The community in this case was the class the participant was taking.

The researcher found it difficult to categorize *ESPN SportsCenter* broadcasts. While *SportsCenter* is technically a sports news broadcast, it does contain elements of entertainment. It was decided that while there were elements of entertainment, *SportsCenter* most aptly belonged in the goal of social understanding. Yet again, “Stay on top of what is going on in your community,” seemed to be the question the interaction best answered.

The downloading of video and audio files from the Internet posed an interesting challenge. Using the 1993 Ball-Rokeach scale, this type of interaction was very difficult to categorize. The participant was not seeking information, but actual content. At the click of a button, a song or episode of the *Simpsons* could be downloaded and then watched or listened to. Downloading of video/audio files was categorized as an action orientation goal. “Figure out what to buy,” was the question that downloading answered best. While downloading is not buying, it does entail searching among different contents to find out what to take/download from the Internet.

A final interaction that was frequently mentioned was watching or listening to broadcasts transmitted by the university or the LDS Church (who owns the university). These broadcasts were held the day of September 11 and also on September 14. Every Tuesday, a religious devotional is held on campus and broadcast on the television station owned by the university. On September 11 the regularly scheduled devotional was postponed in order for the president of the university to give a message of hope, consolation, and prayer. On September 14, a similar event was transmitted for the entire

LDS Church. Gordon B. Hinckley, President of the LDS church, shared a message, hymns were sung, and prayers were offered. From the reflection papers, the participants described listening to the broadcasts in terms of comfort-seeking. Comfort-seeking was not described anywhere in the 1993 Ball-Rokeach scale. Do people seek comfort to better understand themselves, or to interact with others more effectively? Does an individual seek comfort to find out what is going on in the community? It was decided to code university or LDS broadcasts as a social understanding goal. The researcher assumed that in seeking comfort from the words of school and church leaders, the participants were trying to gain information on how the community of the LDS faith was reacting to the disaster.

#### *Totaling up the Coding Sheet*

Total minute amounts were created for each day for each of the referents and each of the goals. Sum totals were also created for the number of referents and number of goals depended upon by the students for each day (see Appendix D).

Intercoder reliability was determined in order to determine the reliability of the coding instrument. The researcher trained one coder (see Appendix E) in how to code the media diaries, and then a random sample of seven diaries were drawn from the study sample. The two coders made a total of 393 coding decisions and agreed on 354 of them, resulting in an intercoder reliability of .90 using the Holsti method (Wimmer & Dominick, 2003).

Because the researcher was the sole coder of the entire sample, intracoder reliability was also determined. The same method used to calculate intercoder reliability was also used to determine intracoder reliability. A random sample of seven diaries were

analyzed by the researcher at the beginning of the coding process and then reanalyzed at the end of the coding. The researcher made a total of 329 decisions and agreed on 297 of them, resulting in a .90 intracoder reliability.

### *Data Analysis*

The researcher entered the totals from each day for each diary into SPSS to analyze the data. One-way analysis of variance (ANOVA) tests were run to compare the means of the variables of the hypotheses against the days of the week in order to determine if any significance existed. Statistical significance was tested for at the .05 level. A Bonferroni post hoc analysis was performed with each hypothesis to determine between which days of the week significance was found. The Bonferroni post hoc test was chosen because it performs pairwise comparisons between group means using t-tests (SPSS tutorial).

For the first hypothesis, to find if there was a significant increase in news content consumption between September 11 and the rest of the week, the researcher ran a total of news time for all news referents. An ANOVA was then run to find if there was a significant difference between news time means and the days of the week. A Bonferroni post hoc analysis was then performed to determine between which days of the week was news time significant. The second hypothesis also employed a one-way ANOVA comparing the means of time spent with social understanding and the days of the week. A Bonferroni post hoc was then performed to evaluate which between which days time spent with social understanding was significant. Hypothesis three was tested by totaling up goal scope for each day of the week and then once again running a one-way ANOVA to compare goal scope means against the days of the week. The Bonferroni post hoc

analysis was utilized to determine between which days goal scope was significant. To test the fourth hypothesis, the referent scope of each day was totaled, and then a one-way ANOVA was performed to compare the referent means against the days of the week. The Bonferroni was again performed to examine between which days was referent scope significant. To test the final hypothesis a television total was created which summed the time spent with news television and time spent with all other television contents. A one-way ANOVA was then utilized to compare the television total means against the days of the week. A Bonferroni post hoc analysis was employed to examine between which days the total time spent with television was significant.

## CHAPTER IV

### Results

This study sought to examine students' dependence upon mediated news sources during September 11. Additionally, it sought to determine if goal scope and referent scopes narrowed during the week of September 11. Statistical analyses were conducted to find out if there existed a significant difference of dependency on mediated news sources between September 11 and the rest of that week. Additional tests were run to ascertain if any significance existed for goal scope and referent scope between September 11 and the other days of that week.

#### *Hypothesis 1 Findings*

Hypothesis 1 stated: There will be a significant increase in the time spent with the goal of social understanding between September 11 and the other days of the week. A one-way ANOVA showed that there was a significant difference in time spent with the goal of social understanding between the days of the weeks ( $F = 51.159, p \leq .001$ ). A Bonferroni post hoc analysis showed that the time spent with the goal of social understanding during September 11 was significantly different than every other day of that week. The means revealed that time spent with the goal of social understanding rapidly increased from a mean time of 106 minutes (September 10) to over 350 minutes (September 11). By September 14, the mean time had returned to the approximate levels of September 10 ( $M = 116$  minutes). Post hoc analysis also revealed a residual effect on September 12 with the goal of social understanding, where social understanding was significantly different from the days of September 10, September 11, and September 14. No significant difference was found between September 12 and September 13 (see Table

5 for ANOVA comparisons). The descriptives showed that the goal of social understanding dominated over all other goals the entire week in terms of time spent and number of participants.

Table 4  
*One-way ANOVA for Time Spent (in minutes) with the Goal of Social Understanding*

Variable	F	p	Date	N	M	SD
Social Understanding	51.15	.000	9/10	65	106.94	76.89
			9/11	66	353.53**	177.36
			9/12	65	200.65*	116.21
			9/13	64	139.33	93.66
			9/14	59	116.15	72.17

Bonferroni: Post hoc showed significant difference between the days of the week

\* 9/12 significantly different from 9/10, 9/11, and 9/14 at  $p < .01$

\*\* 9/11 significantly different from 9/10, 9/12, 9/13, and 9/14 at  $p < .001$

### *Hypothesis 2 Findings*

Hypothesis 2 stated: There will be a significant increase of student dependency on news content between September 11 and the other days of that week. A one-way ANOVA showed significant difference devoted to consuming news among the days ( $F = 54.815, p \leq .001$ ). A Bonferroni post hoc analysis showed that news consumption was significantly different on September 11 than every other day of the week. The means showed that news consumption increased almost 7 fold between September 10 ( $M = 44$  minutes) and September 11 ( $M = 300$  minutes) only to decrease by September 14 to a mean time of 87 minutes. The Bonferroni also indicated a residual effect of news consumption on September 12, where news consumption was significantly greater than 9/10. (see Table 4 for ANOVA comparisons.)

Table 5  
*One-way ANOVA for Time spent (in minutes) with News Content*

Variable	F	p	Date	N	M	SD
News Content	54.81	.000	9/10	38	44	37.30
			9/11	66	300.88**	182.42
			9/12	64	124.19*	95.61
			9/13	54	72.07	56.17
			9/14	55	85.35	48.06

Bonferroni: Post hoc showed significant difference between the days of the week

\* 9/12 significantly different from 9/10 and 9/11 at  $p < .01$

\*\* 9/11 significantly different from 9/10, 9/12, 9/13, and 9/14 at  $p < .001$

### *Hypothesis 3 Findings*

Hypothesis 3 stated: Goal scope will narrow significantly between September 11 and the other days of the week. Hypothesis 3 was partially supported by the findings.

While the one-way ANOVA indicated that goal scope varied among the days of the week, ( $F = 9.264, p \leq .001$ ) post hoc analysis revealed that September 11 was significantly different from only September 10, September 13, and September 14.

Students depended on an average of 2.78 goals on September 10 which then narrowed to 1.86 goals on September 11. By September 14, goal scope had expanded back out to an average of 2.5 goals. There was no significant difference in goal scope between September 11 and September 12. So while the number of goals that students sought out did narrow significantly on September 11, 9/12 again saw a residual effect from September 11. Students were still depending upon the media to satisfy their goals of understanding the attacks (see Table 6 for ANOVA comparisons).



Table 6  
*One-way ANOVA for Mean Number of Goals*

Variable	F	p	Date	N	M	SD
Goal Scope	9.26	.000	9/10	66	2.78	1
			9/11	66	1.86*	.89
			9/12	66	2.22**	.83
			9/13	66	2.42	.96
			9/14	65	2.5	.88

Bonferroni: Post hoc showed significant difference between the days of the week

\*9/11 significantly different from 9/10, 9/13, and 9/14 at  $p < .05$

\*\* 9/12 significantly different from 9/10 at  $p < .01$

#### *Hypothesis 4 Findings*

Hypothesis 4 stated: The referent scope will narrow significantly between September 11 and the other days of the week. The findings did not support hypothesis 4. The one-way ANOVA revealed that there was no significant difference of referent scope among the days of the week (see Table 7 for ANOVA comparisons). Examining the descriptives showed that the mean referent total for the week was 3.52 referents. September 10 had a mean referent total of 3.65 while September 11 had a mean of 3.28. The lack of variation among the mean number of referents from day to day was surprising to the researcher. The researcher had supposed that, like goal scope, the number of referents depended upon by participants would decrease on September 11 and September 12.

Table 7  
*One-way ANOVA for Mean Number of Referents*

Variable	F	p	Date	N	M	SD
Referent Scope	ns	ns	9/10	66	3.65	1.1
			9/11	66	3.28	1.24
			9/12	66	3.72	1.18
			9/13	66	3.6	1.26
			9/14	65	3.33	1.29

### *Hypothesis 5 Findings*

Hypothesis 5 stated: Among the referents, time spent with TV will be significantly greater on September 11 than the other days of the week. Hypothesis 5 was supported by the findings, an ANOVA showed significant variance between the days of the week ( $F = 22.886, p \leq .001$ ). A Bonferroni post hoc analysis showed that the time spent with television during September 11 was significantly different than the other days of the week (see Table 8 for ANOVA comparisons).

Table 8  
*One-way ANOVA for Time Spent (in minutes) with Television Content*

Variable	F	p	Date	N	M	SD
TV Content	22.88	.000	9/10	31	71.29	46.47
			9/11	62	247.27*	188.11
			9/12	50	114.09	97.59
			9/13	43	71.32	57.5
			9/14	44	86.46	54.75

Bonferroni: Post hoc showed significant difference between the days of the week

\* 9/11 significantly different from 9/10, 9/12, 9/13, and 9/14 at  $p < .001$

While referent scope did not narrow (Hypothesis 4), the diaries of the participants articulated a tremendous dependence on the television the day of September 11. The descriptive data of television was quite telling in itself. The number of participants watching television doubled from September 10 ( $N = 31$ ) to September 11 ( $N = 62$ ) and the mean time spent with television more than tripled between those two days. This sharp increase in time spent was followed by a swift decline in consumption of television by September 14 with 44 participants watching a mean time of 86 minutes.

## CHAPTER V

### Discussion

#### *Overview of Findings*

The content analysis revealed that students depended on news sources during the week of September 11, the goal of social understanding being the most germane at the time. Dependency on media sources for the goal of social understanding in turn led to a narrowing of the goal scope, as students turned to sources that offered news content about the attacks. Surprisingly, the referent scope did not significantly narrow. Although the content analysis showed a tremendous dependence on television by students during September 11, the availability of other referents allowed students multiple avenues to satisfy their need for information.

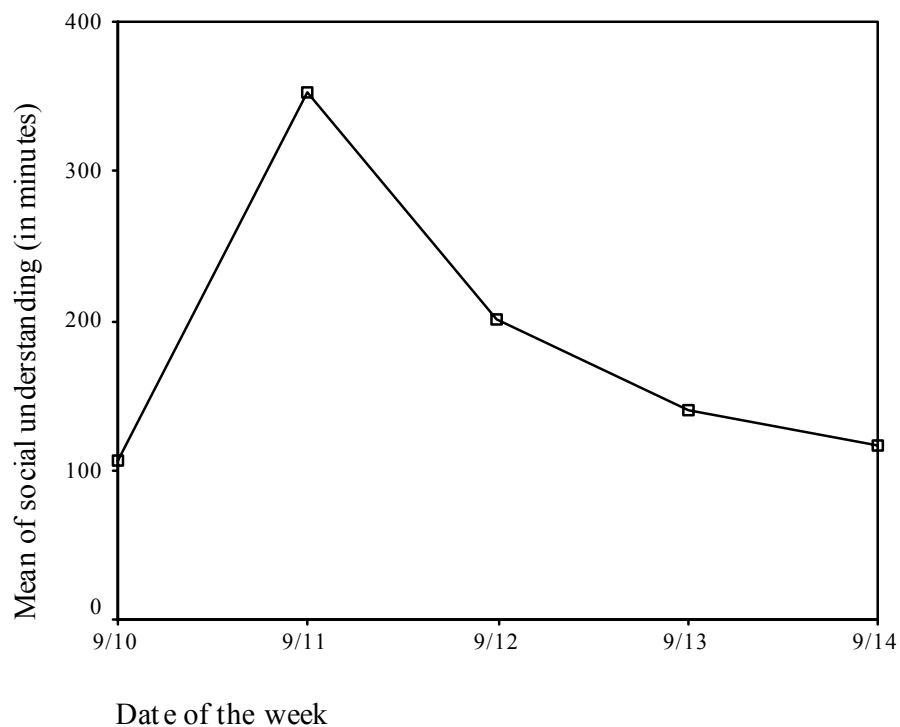
Interestingly, while goal scope did narrow on September 11 and September 12, the descriptives showed how quickly it expanded by the end of the week. Likewise with the consumption of news content, September 11 saw a drastic increase in consumption only to be followed by a return to pre- September 11 levels of consumption by the end of the week. DeFleur and Ball-Rokeach (1989) have stated, “during a crisis we construct the kind of media system that will best serve the personal goals that are most important at the time. When the crisis is over, we may return to our everyday media systems . . . (p. 309). The descriptives seemed to contradict this statement. By the end of that week the ambiguity aroused by the attacks certainly hadn’t been resolved, yet students resumed more normal patterns of media consumption. Looking for explanations for these behaviors, the researcher examined the reflection papers of the students. The reflection papers provided the researcher with descriptions of motivations for seeking out the

media, thoughts and feelings about the media presentations of the attacks, and how their thoughts and feelings shaped their behaviors.

### *Discussion of Hypotheses*

#### *The Goal of Social Understanding*

There was a significant increase of time spent with the goal of social understanding, followed by a return to pre-September 11 levels by the end of the week (see Figure 2).



*Figure 2.* Mean time spent with social understanding during the week of 9/11.

The tremendous amount of time spent with the goal of social understanding can be explained by the categorization method used. The questions associated with the social understanding goal on the Ball-Rokeach et al. (1993) scale resulted in many students' interactions to be categorized as social understanding goals. Not only were students

interested in finding out what was going on in the country, but they were also very interested in what was going on in the community—the community of the classroom. Even with the disaster overshadowing all else, the salience of the classroom was always there. Students continued to read their textbooks in order to stay on top of their assignments.

#25: During my media consumption week, even though my main focus was on the attack on America, I still had a life to live. That life is the life of a student . . . . I was surprised to count that I spent 9 hours and 40 minutes reading my books during one week.

#41: The amount of time I spent doing (reading textbooks) didn't come as a surprise to me and it seemed to fit in normally into a typical week during the school year.

#57: My next greatest consumption of media was textbooks. This is a reassuring thought. These of course are the materials required for my class study. Not much to say there except that I need to study more because my studying was not as much as I expected and not as much as it should have been.

The descriptives for the referent of textbooks, scriptures, handouts etc., revealed that on Monday, 47 students reported reading a textbook, etc., for a mean of 89.37 minutes. On the day of the attacks, 38 students reported reading a textbook etc., for a mean of 78.83 minutes, a decrease of 9 students and 11 minutes of the time spent mean. Wednesday and Thursday saw a return to the approximate levels of September 10, while Friday saw the largest shift in consumption of textbooks, etc. with only 23 students reporting usage for a

mean time of 77.22 minutes (see Figure 3). The weekend had arrived and students were eager to set aside the cares of the nation and classroom in favor of other goals and contents.

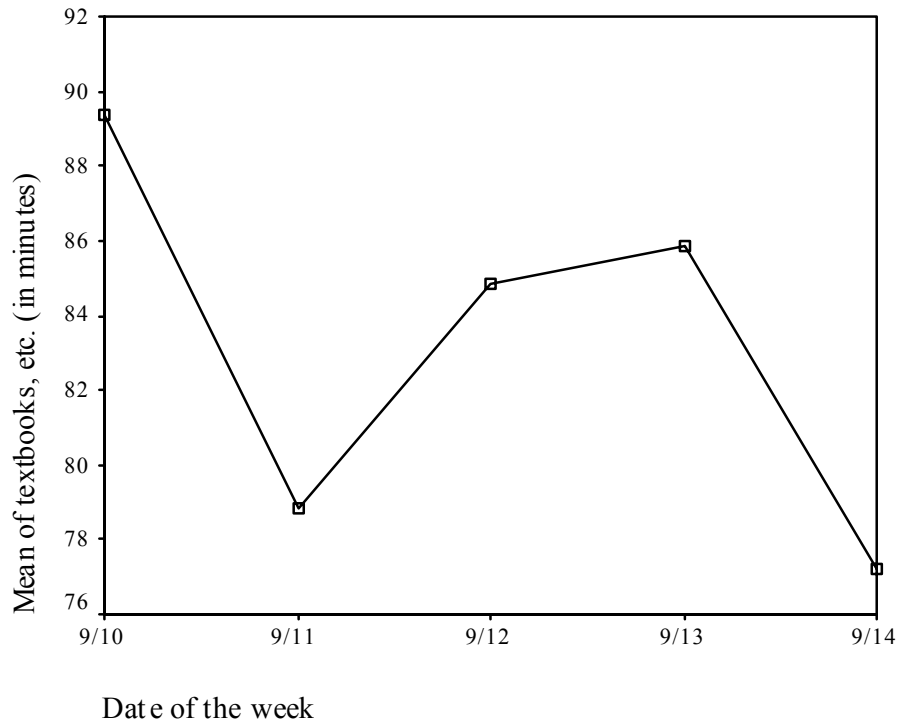
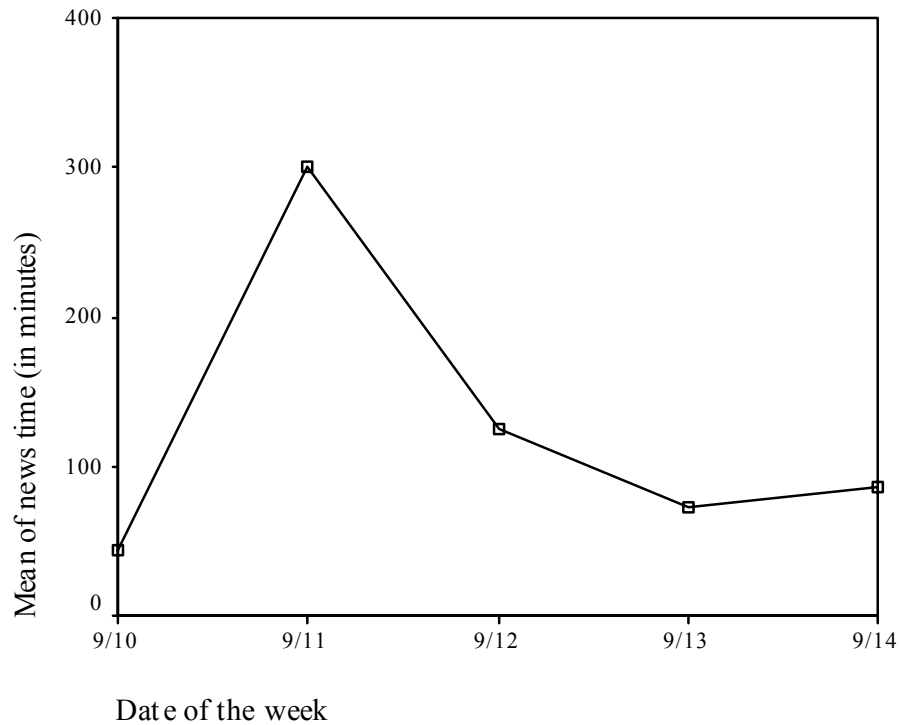


Figure 3. Mean time spent with textbooks etc. during the week of 9/11.

#### *News Content*

Following the same pattern of social understanding, there was a significant increase in student dependency upon mediated news sources during the week of September 11, the descriptives showed how quickly the students returned to earlier patterns (September 10) of news consumption (see Figure 4). September 14 saw a slight increase from the two previous days in news consumption which can possibly be explained by the statements from the students' media diaries. On September 14, a devotional was aired by the church that maintains the university and many of the students

listed listening or watching the devotional. The devotional was categorized as news content.



*Figure 4.* Mean time spent with mediated news content during the week of 9/11.

This finding adds to earlier research. Hirschburg et al. (1986) hypothesized that while media information would be insufficient to resolve ambiguity, people would continue to look to the media for resolution and their analysis confirmed this hypothesis. While students continued to look to the media to resolve ambiguity, the amount of time spent with mediated news sources decreased rapidly. Possible explanations for the drastic resumption of earlier levels of news dependency were found in statements made by the students in their reflection papers. Each reflection paper and media diary was assigned a number in order to preserve the anonymity of the students. Statements from the students are referred to by their assigned number.

#25: In doing this experiment I realized the dependency not only that I have, but most people have on the media . . . . It was especially interesting to me that after so much consumption of the news coverage throughout the week, I became almost upset and disturbed. I then used the media in a different manner. I searched through the television channels for anything that didn't have to do with the terrorist acts . . .

#52: By this time, I was sick of hearing about the attacks. Yes, it is very sad but also very frightening . . . at this time, I was getting a little tired of the media coverage. They seemed to be forcing feelings and emotions out of people just to get the higher ratings.

#41: I mentioned earlier that I normally do not watch a lot of television. On that week, however, I watched programs other than the news just to get my mind off the news. Hearing about the terrorist attacks all day was overkill. So, I wanted to be distracted.

#140: By the middle and end of the week I was emotionally drained from seeing all the images on television.

#54: My roommates and I started dancing to some music on the radio. We felt like we needed something to cheer us up after the grueling and depressing events of the day before. The music we heard was uplifting and fun, which brought our spirits up and distracted us from the tragedy so that we were able to do our work. I hadn't expected to feel so much better by doing that, but it was a good break from reality.



These students articulated weariness with the images and dialogue associated with the disaster and were looking for something else to uplift them or help them escape from the reality of the attacks.

DeFleur and Ball-Rokeach (1989) suggest that individuals select media based on past experiences that lead them to expect goal satisfaction. When expectations are not met disappointment ensues, causing a decrease in the intensity of the IMD relationship. Some students expressed the disappointment they felt with the media's inability to provide new information about the attacks in their reflection papers:

#97: As the week progressed and more and more information came out about the attacks on New York, it seemed that the news programs kept replaying the news over and over again. It became very redundant.

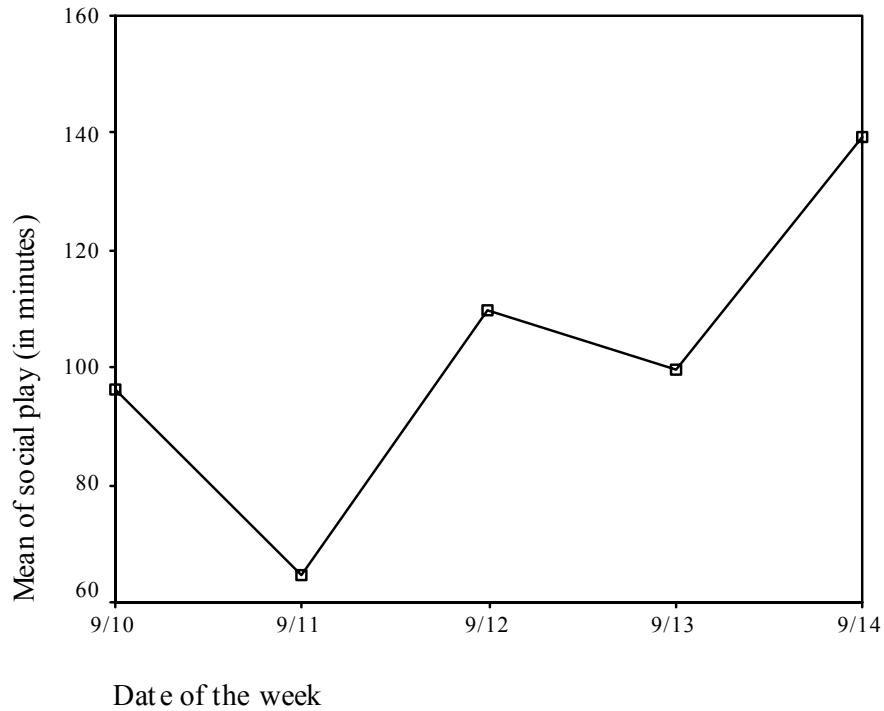
#37: The next day was much the same; listening to the radio at work and watching TV at home. We tired of watching TV because it was pretty much the same thing being repeated over and over again.

#41: All the television watching I did didn't leave me completely satisfied. It didn't fully meet my expectations. I used it as a way to get information. In many ways it provided the information, but at times I'd wait what seemed like forever for something new to be said.

### *Goal Scope*

To explain the sharp decline in seeking out media for goals of social understanding, examining the students' dependency on other goals proved insightful. As stated before, students tired of the media coverage of the attacks and soon looked for other contents for different goal attainment. Apart from the goal of social understanding, an ANOVA of each goal scope revealed that the goal of social play was the only other

goal that varied significantly that week ( $F = 3.402, p < .01$ ). Time spent with the goal of social play saw a dramatic decline on September 11 ( $M = 64$  minutes), followed by a sharp increase in time spent ( $M = 139$  minutes) by September 14 (see Figure 5).



*Figure 5.* Mean time spent with the goal of social play during the week of 9/11.

As stated earlier, hypothesis 3 arose out of Loges' (1994) study of perceptions of threat, where it was found that goal scope did not increase across the entire goal scope as threat increased. In the present study, it was found that goal scope did narrow significantly during September 11, but then expanded out to pre-September 11 levels by the end of week (see Figure 6). However, post hoc analysis showed that there was no significant difference in goal scope between September 11 and September 12. The events of September 11 being so present and salient on September 12, students continued to seek out media sources for the goal of social understanding. As one student stated,

#37: At 1:00 in the afternoon (September 12) we turned on the TV and watched CNN Headline News and we did not turn it off until much later that evening . . . . We didn't know when to turn it off. We didn't know of our expectations had been met. We didn't know if it would ever seem like reality, or if it would just seem like a really mean movie.

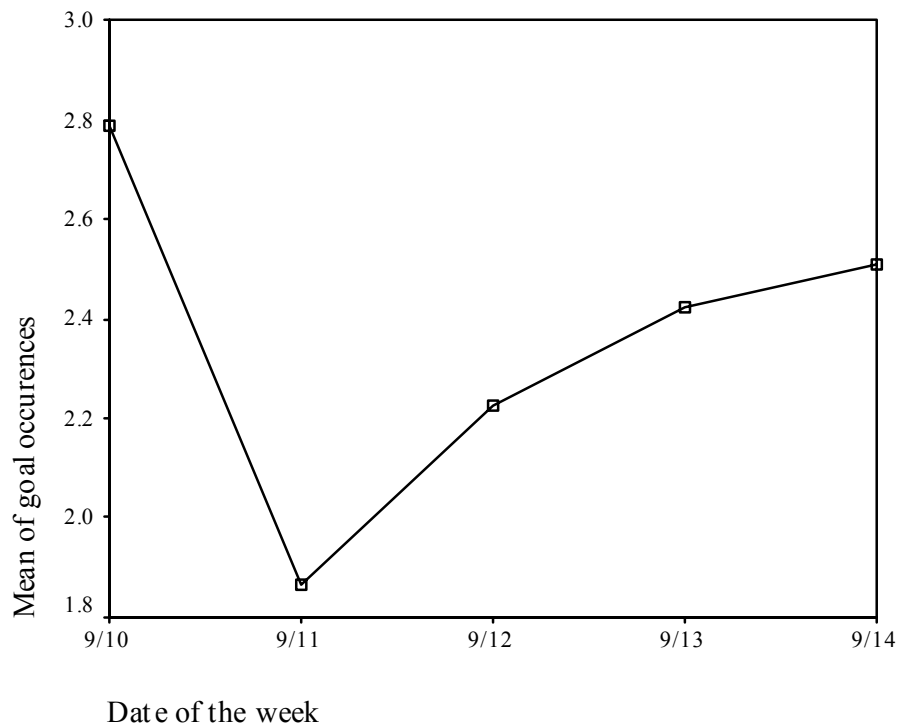


Figure 6. Mean number of goals depended upon during the week of 9/11.

#### *Referent Scope*

Findings for hypothesis 4 showed that there was no significant difference in referent scope the week of September 11. The researcher discovered from the reflection papers that students depended upon a variety of referents for information about the attacks. Specific referents had specific goals associated with them, but the goal of social understanding overlapped across almost all referents depended upon by students that week. Students articulated a tremendous dependence on the television during that week

for social understanding goals, but reflection papers also revealed a dependency on television for solitary and social play, and interaction orientation goals.

Radio was depended upon for social understanding goals by participants who didn't have access to a television. More often than not, radio was identified by students in association with solitary or social play goals.

#25: Usually I have music playing in the background while I am getting dressed, cooking, cleaning, or just chatting with friends . . . the radio is where I first heard news of the Attack on America. It was very shocking to hear the news of the attacks, however the actuality of the happenings were not real for me until I saw the images for myself on television.

#62: I chose this media simply because I do not have easy access to a television at all times during the day. The morning of the tragedy after hearing initial reports from neighbors, I turned on the radio to NPR and listened for hours.

#11: On the morning of September 11, I woke up and was informed of the news by my roommate. Unfortunately, we did not have our television hooked up yet, so we turned on the radio.

#40: I usually listen to the radio more for the music, not for the news. But, during this week, there was no music, only new . . . after a couple of days I sort of got sick of it, and I began to miss my tunes . . . when the stations started playing them again, it seemed awkward.

#97: . . . during that week, I listened to the radio. It became my escape from the world of news. I loved to turn the radio on and just let the music

take me away. It got old listening to the television and even hearing people discuss the attack on New York.

The Internet was depended upon by students for a wide range of goals. Social understanding goals were associated with the attacks, but also class assignments. Some students felt that the coverage of the attacks was more thorough than television. Additionally, students depended on the Internet as means of personal communication (email, Instant Messenger) and action orientation goals.

#25: I was searching for a deeper knowledge base of the happenings around the country.

#18: Through the Internet, I wanted to go deeper into the stories.

#68: I use the Internet many times a day to receive email, check announcements for classes, and do research in the BYU library.

#006: There were always links to news of the attacks on the AOL welcome screen. This drew my attention and I often found myself searching the related sites for news on the aftermath of the attacks . . . . I realized that the Internet is not just a place for personal interactions, but it is a means of media coverage.

#004: I also read updates about the attacks on the Internet, while checking my email and doing other homework. The convenience of the Internet is incredible.

#66: I looked up banking information, checked the Comms website, used the on-line dictionary...the internet made information very easily

accessible. It was so convenient to simply click on to the Communications website and be able to know what was going on that week.

Music media was depended upon exclusively for solitary and social play goals.

#25: I am surprised how much I cut back on radio and music during this week. I cut back on these mediums to allow more time watching television. However, usually I have music playing in the background while I am getting dressed, cooking, cleaning, or just chatting with friends.

#29: I spent most of my media time, twelve hours and twenty minutes, listening to music. That includes the radio, CDs, and cassettes. I enjoy listening to music almost all of the time when possible, I prefer to be listening to music while accomplishing other tasks. My love and appreciation for music leads me to believe that is not a negative habit, however, after learning the powerful influence that such media can have on one's life, I am not sure anymore.

#46: I love listening to the radio. I used to listen to it everywhere I could: in my room, driving in my car, even taking a shower. I love listening to music, and in most cases, singing along, and just about any time I can, I will. Having a song at least in my head has kept me sane innumerable times at work, school, or home, when I'm depressed, frustrated, or confused.

The newspaper was exclusively associated with social understanding goals during the week of September 11, (Loges & Ball-Rokeach, 1993) and was viewed by some students as providing late, yet more thorough and accurate information about the attacks.

#58: The newspaper is a good way to gain information, but it is always information from the day before. The newspaper is also hard to read sometimes because the articles are continued on different pages throughout the newspaper.

#62: I wanted to have something tangible, something believable that would bring me out of my shock into reality and find sense amid all the senselessness . . . my need for physical evidence was put on hold for twenty-four hours . . . every aspect of the tragedy was covered thoroughly. One of the lasting images left imprinted upon me was the picture of the solitary figure falling from one of the Twin Towers after jumping to escape the horror within . . . although television, radio, and internet have more flexibility as to what they report with very little deadlines, I preferred the newspaper with its reality.

#99: The New York Times contributed to learning about specific details...in many ways the newspaper fulfilled my media expectations in that it seemed to be more reliable than the live TV coverage.

Thus, with an array of options at their disposal, student dependency was not confined to a limited number of referents. What referents were sought out varied according to the dependency goals of the students.

#### *Dependency on Television*

Prior research (Hirschburg et al., 1986; Lowrey, 2004) predicted that hypothesis 5 would be confirmed by the present study. Lowrey found that familiarity with a medium was a predictor of media use for individuals who used the radio, print media, and web to

find out about the attacks, but not so with television. He says, “It is clear that TV is the medium of choice in a national crisis, and this preference is not simply the result of habit” (p. 354). According to the reflection papers, the most mentioned medium in connection with the desire for information about the attacks was television. The combination of visual images, dialogue, and live updates fulfilled the students’ desire for information greater than any other medium.

#008: I didn’t accomplish any homework. I wanted to find out anything new. I watched TV at my boyfriend’s home.

#140: I relied heavily on television news to keep me supplied with information.

#143: I watched a great deal of television . . . I spent the hours very soberly watching the news.

#30: From this point on for the next few days, I consumed as much of the news broadcasts as I could and whenever I had some extra time . . . the medium, which I used the most often, was the television.

Interestingly, some students voiced their inability to believe the attacks had occurred until they saw it on television.

#25: I couldn’t tear myself away from the television . . . I couldn’t comprehend what was truly happening, until I saw it on TV.

#22: Eventually I made it to CNN to find out what the heck was going on . . . the main reasons I was watching television was because I wanted to see pictures of what was going on . . . it (TV) gave me what I needed and that was picture proof of what was happening.



#68: I was consumed by the television . . . plus, I needed the visuals to allow me to believe that what had happened was real. I will never forget that week.

As Gerbner, Gross, Morgan, Signorielli, and Shanahan explain,

Television is the source of the most broadly shared images and messages in history. It is the mainstream symbolic environment . . . in which we all live out our lives. Even though new forms of media seem to sprout up weekly, television's mass ritual shows no signs of weakening, as its consequences are increasingly felt around the globe. (Bryant & Zillman, 2002, p. 43)

From their reflection papers, students described their dependence on television for information about the attacks in a variety of ways.

Table 9  
*Student-identified Reasons for Seeking out Television (from the Reflection Papers)*

Identified Reasons	Students (by identification number)
Information about the Attacks	25, 22, 65, 68, 62, 37, 04, 58, 63, 30, 140, 143, 44, 19, 94, 08, 46, 49, 41, 54, 99, 34, 14, 15, 86, 21, 03, 55, 108, 06, 40, 57, 59, 66, 17, 45, 20, 149
Comfort/looking for comfort	25, 65, 62, 37, 58, 140, 143, 44, 54, 15, 55, 45
Scapegoat (someone to blame)	65
Needed to feel like they were there	140, 55
Didn't want to be left out of the conversation/socially acceptable, good citizenship	65, 44, 41, 54, 34, 15, 45
Wouldn't/couldn't have believed otherwise	25, 22, 68, 11, 37, 44, 30, 15, 86, 57, 66, 45, 149
Quick/Convenient	62, 63, 140, 44, 94, 34, 86, 21, 03, 55
Live/ 24-7 updates	19, 99, 34, 21, 03, 55, 06, 57, 59, 17
Sounds and pictures	25, 68, 59
To see the newscasters	62, 37, 143

While many of these reasons can be categorized as social understanding goals, others were difficult to fit into the IMD typology. For example, where does the inability to believe the attack occurred until seen on television fit into the typology? Some statements from the diaries and reflection papers were difficult to categorize using the instrument questions from the Ball-Rokeach et al. (1993) study. This finding will be discussed in greater detail later in this chapter.

As with news content and social understanding, time spent with television saw a drastic viewing increase from September 10 to September 11 followed by a gradual decline back to September 10 levels of consumption by September 14 (See Figure 7). To explain this rapid decline in viewing time, the reflection papers provided some insight. In

harmony with the findings for news mediated sources, students felt overwhelmed and burdened by the never-ending stream of live coverage and sought out different contents and media according to their varying dependency goals.

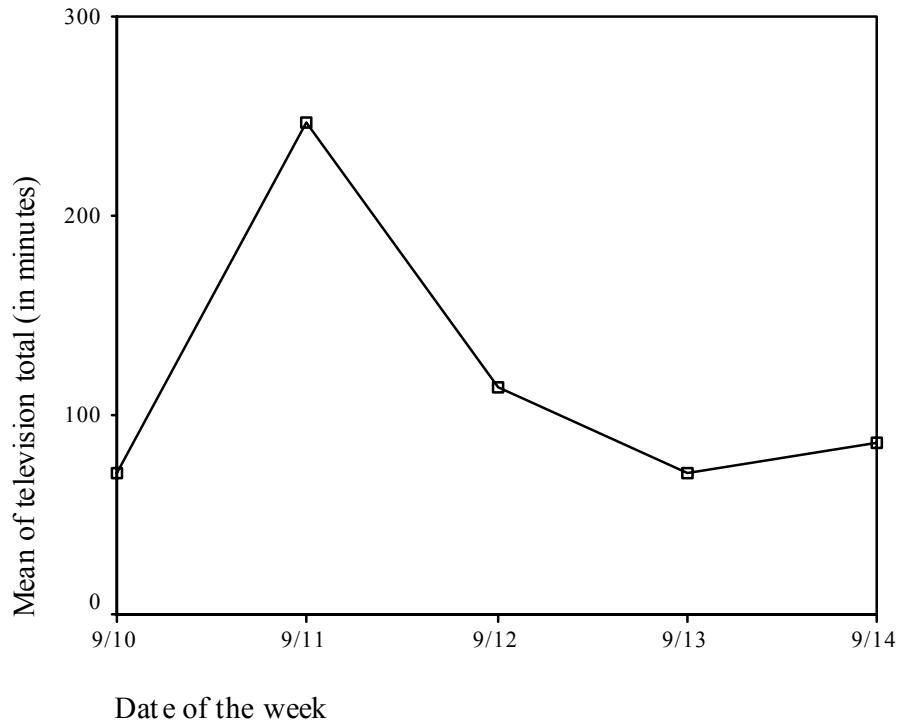


Figure 7. Mean time spent with television during the week of 9/11.

### *Discussion of Research Questions*

#### *Methodological Support for IMD*

The existence of the IMD relationship was confirmed using a methodology outside of a survey instrument, helping to answer research question 1. Content analysis proved to be a useful methodology to analyze the media diaries of the students. The Ball-Rokeach et al. (1993) scale that was used to assess dependency goal scope proved to be, for the most part, useful in describing the dependency relationship of the students during September 11.

### *Comprehensive Goal Scope*

The researcher had difficulty in categorizing some of the students' statements. Research Question 2 questioned whether the goals of IMD are as comprehensive as Ball-Rokeach postulates. Using the Ball-Rokeach et al. (1993) scale to operationalize goal scope created some categorization difficulty. Many of the students identified a dependence upon a medium as a source of comfort. Self-understanding seemed to be the likeliest goal choice, however, as defined by Ball-Rokeach et al. (1984), the goal of self-understanding is concerned with the media's role in producing and distributing information that is relevant and helpful for understanding oneself. Such topics might include "staying mentally and physically fit, learning to be assertive and self-confident, getting to know oneself as a sexual and social being, learning to overcome personal crises and failures, learning to be a better single parent, and more generally, learning to actualize oneself through work, hobbies, and personal relations" (p. 8).

Furthermore, the 1993 scale by Ball-Rokeach et al. incorporates the following three questions to assess self-understanding: "Gain insight into why you do some of the things that you do? Imagine what you'll be like as you grow older? Observe how others cope with problems or situations like yours?" (p.10). These questions and topics do not seem to address comfort. Comfort seems to be an affective response or desire rather than a cognitive one. The self-understanding questions and topics address obtaining information in order to learn about or improve oneself. Comfort on the other hand, seems to be interested in obtaining information in order to stimulate emotional responses of peace and security. The theory itself postulates that an intense IMD relationship can have cognitive, affective, and behavioral effects, but the scale with which dependency

relationships are assessed does not address the affective components of the relationship in its entirety. While the goal of solitary play addresses the affective needs of individuals (unwind after a hard day or week), the affective component of an individual's dependency is missing from the other goals. Because of the confining nature of scale, this study found the goal scope typology not to be comprehensive. The researcher believes that the scale needs to be revised to include the affective components of the understanding and orientation goals.

### *Effects of September 11*

The reflection papers helped answer research question 3 that asked whether the media presentations of the attacks had effects on the students. MSD postulates that an intense IMD can have cognitive, affective, and behavioral effects. Cognitively, Ball-Rokeach and DeFleur (1976) postulated that an intense IMD relationship could change attitudes, beliefs, and values. Many of the students described the media presentations of the attacks as creating and resolving ambiguity as well as changing their attitudes and beliefs:

#25: The media wasn't telling me what to think of this mess. It was simply telling me what to think about.

#11: After watching and hearing so much of the news I realized that I really should make the news a permanent part of my life. It is important to know what is going on in the world, and especially in our nation.

#41: Without a doubt I was dependent on the media for information and for help in understanding the terrorist attacks. I spent hours waiting for new developments and new information.

#143: The media can change how you are feeling, change the way you see things, tell you what to think about, and now I realize the effects it has . . . I spent twenty-five hours and forty-seven minutes consuming media in five days, and I think that for this particular week, it was time much needed and well spent.

#149: I think it's so important to me at least to, from now on, be more aware of what I am watching and listening to.

Some affective effects of the attacks were previously discussed in this chapter. Students described feeling emotionally drained, weary, or disappointed with the media coverage of the attacks and sought out other contents (behavioral effects). Others described feeling shocked, scared, confused, or humbled.

#11: Seeing the second plane crash into the World Trade Tower was shocking. I just sat there for a little while letting the reality sink in. I will forever remember seeing that for the first time.

#44: Sometime during the week, I had convinced myself that by seeing the pictures on the news, by seeing the emotion, I would feel comforted, I would feel safe; I would feel that everything would be okay, just like my daddy had told me. And yet, a week later, I did not feel any better about the future of America.

#09: The impact of this media and information on me was significant. It made me step back from my life and remember to appreciate the many blessings that I have.

#34: I can still recall exactly where I was as I watched the television in horror as the second plane smashed into the second tower. It was almost like a dream, and that memory will stay with me for quite some time . . . I think that I have realized, a little better, the fragility of life . . . and making me more aware of the suffering of others so that I can be grateful for my own blessings.

Finally, the media presentations of the attacks elicited different behaviors from the students. As was previously discussed, several students describe seeking different contents other than the attacks to escape the reality of the attacks for awhile. Others described the attacks as prompting positive behavioral change.

#63: Since the time we began the media consumption diary, I have continued to use the media more frequently. I feel more informed when I know what is going on around the world. I think the reason I never paid close attention to the media before was because I never made time to . . . I have started to pay closer attention to how the media is portrayed, the manner in which the new stories are reported and the different ways in which the media advertises.

#08: I now actually care about what is going on in the news. I listen to KSL every morning so that I don't fall behind . . . I still believe in consuming in rations, but now I realize that it is important to know what is going on in the world of which I am a part.

One student described the media coverage of September 11 as causing her to change her career path.

#94: Overall, I think that I have been disappointed by the news medium, whether it be television or newsprint. Don't get me wrong, they still offer a huge amount of information to a very large audience, but they seem a little lacking in humanity. This project actually made a monumental impact on my life. Before I took this class, I was excited about journalism and news broadcasting. I was seriously considering a career until this class and this project. I don't think that I have the necessary skills required for this profession.

Congruent with the findings of Lowrey (2004), the reflection papers revealed that dependence on TV was the referent most associated with having effects. Many students wrote of the images they saw on television as having lasting impacts on them.

#19: The medium, television, created a whole new meaning for me this week. Being only eighteen, this is the first big world event to happen in my life that will stay with me always. The media through television will never let me forget it.

#66: Because I was able to watch the television I will always remember what occurred on that day. I can vividly recall some of the scenes they replayed over and over again. I will have these lasting impressions because of the power of this medium of communication

#99: The images of planes exploding into two of the largest buildings in our country are vividly etched into my memory as a direct result of mass media.



#15: I will always remember the image of the second tower of the World Trade Center falling. Without media I would never have seen that, and I am not so sure that I am glad I did see it.

#06: The images I saw on the TV screen would not be forever embedded in my mind. TV brings reality to the people. Without television, we cannot understand the seriousness of the terrorist attacks.

It was previously discussed that because of weariness with the media presentations about the attacks, disappointment with the repetitiveness of news content, and other commitments such as school and work, students returned to earlier media consumption patterns. The rapidity with which former patterns were resumed was what was surprising, suggesting at first glance that the attacks had an almost ephemeral effect on students. However, the reflection papers of the students suggest that the attacks had broad cognitive, affective, and behavioral effects on them. While these two findings appear contradictory in nature, MSD theory provides explanatory direction.

First of all, that a number of students stopped seeking out information about the attacks in favor of other contents is in itself a behavioral effect. While MSD would assume that the greater the ambiguity created by social unrest, the greater the dependency by individuals on the media system for resolution (Ball-Rokeach & DeFleur, 1976), some students chose to distance themselves from the ambiguity of September 11 despite the lack of resolution. Secondly, Ball-Rokeach et al. (1993) state that, “frequency of media use may be low, but if media encounters are motivated by a broad and intense dependency relation, its consequences may be substantial” (p. 8). In the opinion of the researcher, although student frequency and time spent seeking information about the

attacks decreased rapidly by the end of the week, substantial effects could have continued occurring.

### *Conclusion*

#### *Contributions of Research*

Returning to the purpose as stated in the Introduction, this study sought to understand how students interacted and reacted to the media presentations during September 11 using the lens of IMD. Did the comments of Frimpter and Davis reflect the extremes of students' experiences with the media during that week, or is one or the other the norm? This study found that both were accurate statements of how students described their media experience during September 11, and neither was the norm. The only norm during that week was seeking out information to make sense of an event that was completely unexpected in nature.

Adding to the IMD research, this study successfully examined IMD during September 11 using a content analysis to confirm the existence of the IMD relationship. The content analysis revealed that IMD relations quickly normalized after the initial shock of the attacks. Despite the tremendous ambiguity created by September 11, students resumed more normal media consumption patterns. As to an explanation for this behavior, student reflection papers expressed disappointment or weariness with the media presentations, and as a result, students sought out other content to escape reality. Students also described the necessity of keeping up with their classes as drawing their attention and time away from the coverage of the attacks. Confirming earlier research, television was the referent of choice for content about the attacks (Hirschburg et al., 1986; Lowrey,

2004) and goal scope narrowed (Loges, 1994) to the goal of social understanding only to be followed by an expansion of goal scope by the end of that week.

The diaries revealed that some student-identified reasons for seeking out the media were not easily categorized using the Ball-Rokeach et al. (1993) scale. The scale accounted for the cognitive goals of the students, but only the play goals accounted for the affective goals. This finding led the researcher to the conclusion that the scale used to measure goal scope is not as comprehensive as it needs to be. As the theory postulates the IMD relationship to have cognitive, affective, and behavioral effects, the scale needs to be revised to reflect that assertion.

Additionally, the referent scope did not narrow during September 11. The researcher has supposed that referent scope would narrow during September 11, following the example of goal scope. Instead, with a variety of referents available to them, and the necessity of keeping up with class work, students depended on a variety of media to fulfill their goals.

Finally, student reflection papers described the media presentations of the attacks as having broad cognitive, affective, and behavioral effects on them. Previous research has ascertained effects through survey instruments, while the reflection papers allowed the students themselves to describe the effects the media coverage of the attacks had on them.

### *Limitations*

Using a theory that claims the typology is exhaustive, but not mutually exclusive presented a challenge to conducting a content analysis which requires mutually exclusive categories. To overcome this difficulty, the researcher decided to categorize the

interactions of the participants according to their primary goal. On the one hand, assigning a primary goal made it possible to code the media diaries, on the other hand assigning a primary goal to each interaction limited the interaction to just one goal, instead of a possible combination of goals. The researcher consulted Dan Riffe, a noted authority on content analysis for input in creating the coding definitions and the use of a primary goal. He responded with the following email,

Your data/diaries 'suffer' the same problem of any diary, whether for TV ratings or what. One never knows of their accuracy, when they were in fact filled out, how reliable the time estimates were. But, contortionist that I am, I've found a way in my own mind to deal with this. REGARDLESS when your student actually filled out the diary, s/he availed him/herself of the accessibility rubric. Whatever is entered first in the description of content is arguably the most accessible memory or salient activity of that time interval. I would make this my case for the primary goal determination. (email communication, December 11, 2003)

Splitting the time presented another challenge in developing a reliable coding scheme. While literature from psychology affirms that the mind cannot concentrate well on two or more tasks at the same time, the question still remained as to how to split the time among goals and referents. The time was split in equal amounts among the number of interactions encountered within an entry. Riffe was consulted for his perspective of time-splitting, and he felt that splitting the time would run into some validity problems, "I wouldn't divide the time up; that would be arbitrary and perhaps invalid. Another problem with diaries is the imprecision of the time reports" (D. Riffe, email

communication, December 9, 2003). However, as the time element was such a necessary component of testing the hypotheses, dividing the time became the only viable solution.

Lack of data of “normal” media consumption was another limitation. The diary entries from September 10 were the only pre-September 11 data available to establish “normal” media consumption patterns. Thus, all entries from September 11 to September 14 were compared to September 10 to establish if significant differences in media consumption patterns existed during the week. Massey (1995) states that establishing what is “normal” media consumption is “the major difficulty in defining audience activity.” She believes that “there may be no such thing as normal, routine, everyday consumption or interaction” (p. 332), as individual schedules constantly alter media consumption.

#### *Suggestions for Future Research*

The combined findings garnered from the statistical analysis of the media diaries and the analysis of reflection papers revealed many avenues for future research. The rapidity with which students returned to approximate pre-September 11 media consumption patterns is a finding that suggests an area of future research. Lowrey (2004) found the opposite to be true in his study. He found that 51.9% of the respondents “watched TV for news information more than 10 hours per week during the 2 months following the attacks” (p. 350). In other words, during the 2 months following the attacks 51.9% of the respondents reported being dependent on TV for news content for at least 600 minutes a week. In this study, one student reported consuming 735 minutes of news content on TV on September 11 while the mean for all students on September 11 was 247.27 minutes. By September 12 the mean had fallen to 114 minutes. Lowrey also found

that the “one demographic factor that proved to be an important determinant of dependency was age. Younger respondents were more reliant on mass media for information about the crisis” (p. 355). Lowrey felt that older people may have relied more on personal information resources rather than the mass media. In contrast, the content analysis revealed that student dependency on the media for news content about the attacks declined rapidly, and former patterns of media consumption were resumed despite the lack of resolution. What accounts for this variation? The research method is an obvious answer. The researcher believes that the results from student-kept media diaries of the week of September 11 would differ greatly from a survey instrument distributed during the same time. A survey instrument would ask the participants to assess their media exposure during that week based on a set of questions. The participant in turn, would need to decide based on the confines of the questions, frequency of media use, time spent with the media, and reasons for seeking out the media.

Additionally, what were the intervening variables that caused students to return to former media patterns so quickly? The academic rigors of being a student at a university may be one, but could physical proximity from the attack sites be another? Lowrey conducted his study in Memphis, Tennessee, while the present study was conducted at Brigham Young University, Provo, Utah. Finally, can religion and religiosity be an intervening variable? Since a majority of the students at Brigham Young University belong to and adhere to the teachings of the LDS church, how did this affect student dependence on the media during September 11? The researcher believes that religion did have a mediating effect on the student dependency during September 11, but the extent of that effect cannot be studied with the data.

That the referent scope did not narrow is a finding that opens up an area for future research. Students at a large university have access to different media while the average household may not have access to such resources. Did the referent scope of the average American household narrow during September 11? The present study and earlier studies (Hirschburg et al., 1986; Lowrey, 2004) found that television was the referent of choice of individuals for information during pervasive ambiguity. Will reliance on one referent for information during a crisis have different effects on individuals than those who depend on variety of referents?

Another area of possible research is the dependency that some of the students identified with the images of September 11 in order to create reality. Does ‘seeing is believing’ apply across normal media interactions, or just under specific circumstances such as September 11? Would an individual who depended exclusively on radio for information about the attacks explain their media dependency differently than an individual who had access to television? Why does viewing an event through the symbolic environment of the media (Lowrey, 2004) increase the intensity of the IMD relationship?

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APPENDIX A

Media Diary Assignment

Name \_\_\_\_\_ Section \_\_\_\_\_ Date \_\_\_\_\_

Time (Total)	Location-People	Medium	Description of Content

APPENDIX B

Example of Media Diary

Name: B. Rawlins

Section: 400

Date: January 10

Time (Total)	Location-People	Medium	Description of Content (brief description of content & target audience)
10 – 10:20 a.m. (20 min.)	HFAC, by myself	Newspaper	Read the Daily Universe, mostly about the new addition to the library and about the BYU basketball team’s preparation for the game on Saturday. This is targeted to college students.
5 – 6 p.m. (1 hour)	Apartment, with two of my room mates.	Television	Sports Center. ESPN, the news about the day’s sporting events and personalities as well as issues related to sports. Mostly aimed at males.
7:12 – 7:50 p.m. (38 min.)	Bedroom, by myself	Internet	Went to CNNSI Website to check up on my favorite East Coast sports teams. Went to ESPN Fantasy Games site to update my fantasy league teams. (These sites are mostly aimed at males.) Checked the Comms 101 website for any announcements for class tomorrow.
8:45 – 9 p.m. (15 min.)	In the car, with my friends	Radio	Listened to KBER-FM, which is mostly rock music and is probably geared toward young males. Heard only a couple of songs, and lots of commercials for local stores.
9:15 - 11:30 p.m. (2 hrs 15 min)	In the theater, with my friends and about 100 other people	Film	Saw “O Brother Where Art Thou.” It was a funny film that is supposedly based on Homer’s Odyssey, although very thinly in my opinion. Film is targeted to everyone who enjoys a good laugh and is somewhat culturally literate.

## APPENDIX C

### Media Journal Reflection Paper

Based on the information from your journal, you must write a minimum 3-page double-spaced paper. You must discuss the nature of your interaction with media during the five days. Look back on what you've written in your diary, think about it, and then describe what it means to you. Focus on why you chose the media you used, what you expected to get from each medium, how that medium met or didn't meet your expectations, and what lasting impressions your media use has had since the week you recorded the media.

APPENDIX D

Coding Sheet

ID # \_\_\_\_\_

Coder \_\_\_\_\_

**Enter amounts in total minutes**

	9/10	9/11	9/12	9/13	9/14
<b>News TV</b>	40				
TV	30				
<b>News Radio</b>					
Radio	60				
<b>Newspaper</b>	10				
<b>News Mag</b>					
Magazine					
<b>News Web</b>					
Web	120				
Books	200				
Music					
Movies					
Other					
Referent occur					
Goal occurrence					
<b>Time (news)</b>	50				
Time (other)	410				

<b>Goal Scope</b>	9/10	9/11	9/12	9/13	9/14
Social under	40, 10, 200				
Self under					
Interaction					
Action Orient	60				
Social play	30				
Solitary play	60, 60				



## APPENDIX E

### Coding Instructions

In the Individual Media Dependency (IMD) relationship, the individual is an active problemsolver who is imbedded in interpersonal influence networks and a media environment (Ball-Rokeach, 1984, p. 15). As an active problemsolver, the individual is dependent to varying degrees upon the media system's information resources for the attainment of goals. "Goals are the key dimension of individual motivation conceived to underlie media system dependencies," (Ball-Rokeach, et. al 1984, p. 8). Ball-Rokeach conceives of three types of dependencies on the media, each of which has two subtypes:

1. Understanding Dependency
  - a. Social understanding
  - b. Self-understanding
2. Orientation Dependency
  - a. Action orientation
  - b. Interaction orientation
3. Play Dependency
  - a. Solitary play
  - b. Social play

Ball-Rokeach delineates between personal and social goals because of differing motivations and actions. She explains, "Human beings are motivated to understand themselves and their social environments. They use these understandings in orienting their actions and interactions with others" (Ball-Rokeach & DeFleur, 1989, p. 306).

The goal of social understanding is defined as the degree to which an individual is dependent on the media system for information about the social environment in which he/she lives in. Such information is necessary to "act or anticipate acting (in the social environment), because meaningful social action cannot occur in the absence of a definition of a situation," (Ball-Rokeach et al., 1984, p. 8).

The goal of self-understanding is concerned with the media's role in producing and distributing information that is relevant and helpful for understanding oneself. Such topics might include: "staying mentally and physically fit, learning to be assertive and self-confident, getting to know oneself as a sexual and social being, learning to overcome personal crises and failures, learning to be a better single parent, and more generally, learning to actualize oneself through work, hobbies, and personal relations" (Ball-Rokeach et al., 1984, p. 8).

Orientation goals differ from understanding goals in that understanding goals deal in cognitions, whereas orientation requires the individual to act or interact, (Ball-Rokeach et al., 1984, p. 9). Action Orientation goals are dependencies upon the media for information about such things as: "goods and services, recreation, everyday coping behavior, crisis behavior, and self-defense" (Ball-Rokeach et al., 1984, p. 9).

Interaction orientation goals refer to turning to the media to satisfy the need for information on how to interact with others in our society (Ball-Rokeach et al., 1984, p. 9).

In today's society large numbers of people devote much of their involvement with the media to play dependencies. Solitary play refers to using the media to "obtain

pleasure, esthetic enjoyment, excitement, or relaxation” (Ball-Rokeach et al., 1984, p. 10), while social play deals with using the media as a “facilitators of social intercourse” (Ball-Rokeach et al., 1984, p. 10).

These goals are conceived as being comprehensive, but not mutually exclusive, Ball-Rokeach et al., 1984, Ball-Rokeach et al., 1993; Loges, 1994). Any media message may serve more than one dependency goal.

### **Steps to follow**

1. Read the entire interaction, taking note of time, who the interaction was shared with (if anyone), what the referent/medium was, and the description.
2. Next, assign the time to a referent listed below
3. Then assign the time amount to one of the six goals listed below (see Determining the Primary Goal). Use the questions listed below with each goal to determine in which goal the interaction belongs.
4. Total up the time totals for each day for the referents and goals

### **Referents**

News Television—defined as any news broadcast on network or cable station

TV—all other programming

News Radio—defined as news radio broadcasts

Radio—all other radio programming

Newspaper—any local, state, or national newspaper

News Magazine—magazines dedicated to national news such as: Newsweek, Time, U.S. News

Magazines—all other magazine publications

News web—news websites (local or national) CNN online, etc.

Web—all other websites

Books—textbooks, scriptures, all books or handouts

Movies—films seen at the theater, DVD, or VHS tapes

Music—CDs, MP3s, cassette tapes

Other—Computer programs

### **Goal Scope**

#### *Social Understanding*

Stay on top of what is happening in the community

Find out how the country is doing

Keep up with world events

#### *Self Understanding*

Gain insight into why you do some of the things that you do

Imagine what you’ll be like as you grow older

Observe how others cope with problems or situations like yours

### *Interaction Orientation*

Discover better ways to communicate with others

Think about how to act with friends, relatives, or people you work with

Get ideas about how to approach others in important or difficult situations

### *Action Orientation*

Figure out what to buy

Decide where to go for services, such as health, financial, or household

Plan where to go for evening or weekend activities

### *Social Play*

Give you something to do with your friends

Be a part of events that you enjoy without having to be there

Have fun with family and friends

### *Solitary Play*

Unwind after a hard day or week

Relax when you are by yourself

Have something to do when nobody else is around

### *Time Totals*

News—the total amount of time spent on the news across all referents for each specific day

Other—total amount of time spent across all referents apart from news content

### *Occurrences*

Referent Occurrences—total number of referents used during the day

Goal Occurrences—number of goals used during the day

## **Determining the Primary Goal**

Because content analysis categories have to be mutually exclusive, it has been determined that we will determine the primary goal of each interaction. To determine the primary goal, use the questions from the Ball-Rokeach et al. 1993 scale listed above.

Ex.: I watched an episode of Oprah where they featured Tom Cruise.

While this interaction could feasibly be coded as a social understanding as well as interaction orientation, (maybe) for the purpose of this study the primary goal of such an interaction would be social understanding.

Ex.: I read my scriptures for 30 minutes.

While scripture reading could be coded as several of the goals, we have decided to code scripture reading as a self-understanding goal UNLESS the media episode specifically

states that the scriptures were read for an assignment or to study for a test, in which case the episode will be coded as a social understanding.

Ex.: I surfed the net for 45 minutes, looked up my email, then the Comms website, then went to the GAP website and looked at some cute outfits.

In this case there are several goals present, there is no primary goal for the entire interaction. However, a primary goal can be determined for the content of each website. The 45 minutes would be split between the Comms website and the GAP website. Email/Chat dialogue will not be coded because email is not considered a mass medium usually. 15 minutes would be allotted social understanding (Comms website) and 15 minutes would be allotted to action orientation for the GAP website.

**Classroom time** will also not be coded also. It cannot be determined from a 50 minute class period how much time was actually spent reading a book or watching a video.

**Walking through mall, posters sales, etc.**—These types of interactions will not be coded, because it is not possible to determine the nature of the content.

**Broadcasts and devotionals**—While there is the element of comfort-seeking, social understanding will be the primary goal, and TV News will be the referent.

**ESPN**—Will be coded as a TV News item.

### **Splitting Time**

1. Splitting time between referents/mediums—If within the episode the individual uses two or more mediums, or switches between mediums the time allotted for the episode must be split between the mediums

Ex: I listened to a CD while surfing the web looking for news on the 9/11 attacks: 30 minutes.

15 minutes will be allotted to music and 15 minutes will be allotted to news websites.

2. Splitting time between goals—If within an episode, the individual describes using the same medium for different types of content, the time will be split between the goals.

Ex: Watched CNN for awhile and then watched an episode of the Simpsons, followed by more CNN: 100 minutes.

50 minutes will be allotted to social understanding and 50 minutes will be allotted to solitary or social play depending if the episode was seen with others or alone. While the Simpsons episode was definitely not 50 minutes in length, the instructions need to consistent to be reliable, so the time will be split in half.

Ex: I listened to a CD while surfing the web looking for news on the 9/11 attacks and checked my email: 30 minutes.

Because email is not going to be coded, but still needs to be accounted for in the time total the episode would be divided into three parts. 10 minutes for the CD would be allotted to music, 10 minutes for the September 11 news sites would be allotted to News web, and 10 minutes for email. To code for goal scope, 10 minutes will be allotted to solitary play for the CD, and 10 minutes would be allotted to social understanding for the news websites.

**Final Note: Don't put extra meaning into an interaction; look at what the person wrote!**

Ex: Reading Rolling Stone magazine, and looking for advertisements for my Comms 230 class.

While this interaction could be coded as a solitary play goal (I am sure the individual enjoys reading Rolling Stone magazine) in this interaction the individual explains the purpose as looking for ads for Comms 230. So in this case, this interaction would be coded as a social understanding goal.