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Ethical Ambivalence in Local Television Weathercasting: A Rossian Analysis

Vernon Keith Thompson
Western Michigan University

ETHICAL AMBIVALENCE IN LOCAL TELEVISION WEATHERCASTING: A ROSSIAN ANALYSIS

by

Keith Thompson

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Thesis Committee:

Sandra Borden, Ph.D., Chair
Jennifer Machiorlatti, Ph.D.
Michael Pritchard, Ph.D.

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Keith Thompson, M.A.

Western Michigan University, 2013

Today's television weathercasters are being called upon increasingly to go beyond benign weather prognostications to become the "newsroom experts" for science topics. The expectation to act as both scientists *and* journalists can cause *ethical ambivalence* (EA), a sociological condition in which, faced with conflicting norms, the subject feels that he/she is being pulled psychologically in two different directions (Jansen & Von Glinow, 1985). This thesis presents a Rossian analysis of climate change in weathercasting, a topic that captures the most important ethical tensions arising from conflicting duties within the weathercaster role, specifically: a) how might the duties of the television weathercaster conflict in addressing climate change, creating an environment conducive to ethical ambivalence? and b) in case(s) of conflicting duties, how should he/she deliberate to determine right action? The analysis results in a set of recommendations for television weathercasters for handling the ethical ambivalence caused by such duty conflicts.

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CHAPTER I

INTRODUCTION

As Chief Meteorologist for a local, commercial television station for the past seventeen years, one of my responsibilities has been to oversee a small staff of weathercasters. Several years ago, I discovered by accident that one of the weathercasters in the office had attended a weather-related conference at a resort hotel on an island in the Caribbean region. I thought it odd that the weathercaster had not told anyone in the office about it. It was not uncommon for members of our staff to attend professional conferences; however, those who did were expected to share a report of what was learned upon their return.

Curious why this weathercaster had not mentioned the conference, I did a little investigating, and found that all expenses for the trip were paid by an outside party that had a vested interest in communicating a tourism-related message to attendees. I confronted the weathercaster about what I believed was a breach of journalism ethics: Members of a news organization are strictly forbidden from accepting free gifts. The offer of an all-expense-paid trip to a warm-weather, island beach resort should have been rejected outright, in my opinion.

I promptly reported the concern to my supervisor, the station's News Director, a man who was a stickler for journalism ethics. He had a large poster of the Society of Professional Journalists' Code of Ethics taped to his office door. To my surprise, he simply shrugged off my report. Incredulous, I asked, "You don't have a problem with it?" "Not really," was his response. Stunned, I was left wondering how a News Director who toed a straight ethical line with traditional newsroom employees (reporters,

producers, videographers, editors, anchors) seemingly had no problem with what the weathercaster had done. "Perhaps he doesn't view weathercasters in the same light as 'traditional' newsroom employees," I thought. "Perhaps there is a dual status for the weathercaster: part-journalist, part-scientist."

At first glance, it may appear that the job of the television weathercaster is straightforward, clear, and easy to understand: Simply predict what the weather conditions will be like in the near future for a specific location and communicate that information to viewers in a way that is entertaining and understandable. These tasks have often been trivialized over the years. For example, Rosen (1989) wrote that the outstanding trait of a television weathercaster is a sense of humor, so that he or she can withstand the verbal assaults resulting from a missed forecast. Mirsky (1996) pointed out that, for a time, "the weather guys tended to be the court jesters of the newscast, while the weather gals seemed to be the local beauty-contest winners" (p. 41). Many are familiar with the fictional hippy dippy weatherman, Al Sleet, created and popularized in the 1960s by comedian George Carlin. Sleet's trademark forecast was: "Dark. Continued dark throughout most of the evening, with some widely scattered light towards morning."

However, as Mirsky (2000) asserted, television weathercasting today demands an unusual combination of skills, making the task more difficult than it appears. Wilson (2008) noted that today's television weathercaster must blend science and entertainment. Being a good scientist is only part of the job. Being simply an entertainer, which might have been encouraged and rewarded many years ago, is no longer enough to do the job well. Today's television weathercaster must wear two hats: that of scientist *and* storyteller.

In a prescient essay written more than twenty years ago, journalism professor and critic Jay Rosen predicted a time when the persona of the television weathercaster would be more serious than that of a jovial clown who is often blithely held responsible for adverse weather conditions and forecasts gone awry. The impetus for change, according to Rosen (1989), would be a growing politicization of the weather report, as environmental threats including acid rain, global warming, the depletion of the ozone layer, and the possible atmospheric effects of deforestation, "implicate the weather in a complex of social and political problems" (p. 32). Rosen wrote, "If the skies overhead are increasingly influenced by events on the ground, the line between 'news' and 'weather' becomes harder to draw, and the weather report is less able to maintain its exemption from history, politics and power" (p. 32).

Even if the stakes are not quite as dire as suggested by Rosen, the significance of weather to our daily cultural practices, to the economic and social realities of the public, affirm that the television weathercast, and, therefore, the weathercaster, is critical to everyday life (Meister, 2001). According to the most recent research on news source preference conducted for the Radio and Television News Directors Foundation (RTNDF, 2006), the local television newscast is far and away the public's main source for news, outpacing both traditional and new media sources. Additionally, the research revealed that weather information is the No. 1 reason viewers watch the local newscast. Considering the importance of weather information to the local television newscast viewer, it should not be surprising that the weathercast has been identified as a main determinant for newscast selection (Lin, 1992).

The importance of the weathercast to the local television news program has not gone unnoticed by station managers and news directors. Salsberg (2003) noted, "Stations cultivate their (weather) image through countless days of routine forecasts and benign weather maps, punctuated by the occasional big event" (p. 14). There is evidence that today's television weathercasters are being called upon increasingly to go beyond the benign reciting of atmospheric conditions and routine weather prognostications, extending their scope of responsibility to include "newsroom expert" for science topics in general. A recent study by (Wilson, 2008) concluded that television weathercasters are already broadening their range beyond forecasting, taking on the role of science communicators, and that this function is increasing in prominence. The American Meteorological Society (AMS), the preeminent professional organization for television weathercasters, recently launched an effort aimed at re-branding its weathercaster-members as "station scientists" (AMS, 2006). At the 2004 annual meeting of the Radio and Television News Directors Association (RTNDA), the Executive Director of the AMS encouraged newsroom managers to look to the weathercaster to cover stories about science and the environment rather than assigning these stories to news reporters (McPherson, 2004).

Expanding the range of responsibility of the television weathercaster to include reporting invites a host of potential, distinctive ethical pitfalls. For example, inherent in the position of "station scientist" is the appropriating of dual roles – scientist and journalist – which introduces a multitude of ambiguities; among them, is the weathercaster primarily a scientist, a journalist, or both? If both, when differences arise between the norms of journalism and the norms of science, to which should the

weathercaster feel beholden? If the weathercaster is considered primarily a journalist by virtue of his/her participation in a news organization, does that come at the expense of responsibilities that are distinctive to the scientist if/when there is disagreement between the two fields? If the weathercaster is considered primarily a scientist by virtue of his/her enhanced knowledge (or expertise) in a scientific subject (meteorology), does that authorize the subjugation of obligations that are an essential part of the definition of a journalist in this country? For example, if the weathercaster, in his/her educated opinion believes that claims of near-term catastrophic consequences resulting from global warming are not based on "good science," should he/she say so? It could be argued that to do so would violate the norm of journalistic objectivity. In such a situation, might the violation be justified? The answer to these questions (and many others in a similar vein) is made even more obtuse by the numerous, various dimensions of the television weathercaster's role. What might seem to be the right thing to do when viewed through the lens of journalism may not be considered appropriate when viewed through the lens of science, and vice-versa.

For the television weathercaster attempting to negotiate the dual roles of scientist and journalist, the ethical vacuum created by gaps between the two fields can produce fertile ground for tensions to spawn and thrive. Unaddressed, the tensions can result in the weathercaster feeling that he/she is being pulled psychologically in two different directions -- what sociologists refer to as *ambivalence.* Specific to ethical dilemmas, the condition is known as *ethical ambivalence,* a condition that research suggests can contribute to behavior that is, at best, ethically questionable and at worst, unethical.

In the review of the literature, I will illuminate the dimensions of the television weathercaster role, identifying areas where role ambiguity might exist and ethical tensions may arise. Having established the problem, I will introduce in the methods chapter a normative ethical framework, Rossian deontology, which might be applied to the kind of conflicts identified in the literature review.[1] Research questions will be proposed to guide a Rossian analysis of climate change in weathercasting, a topic that captures the most important ethical tensions arising from conflicting obligations within the weathercaster role, specifically: a) how might the particular duties of the television weathercaster conflict, creating an environment conducive to ethical ambivalence? and b) in case(s) of conflicting duties, how should he/she deliberate to determine the *duty proper*, that is the duty which is to be privileged? The purpose of the analysis will be to propose a set of recommendations for television weathercasters. It is hoped that this normative essay might contribute to an understanding of the subject and provide guidance to weathercasters struggling with ethical ambivalence.

CHAPTER II

LITERATURE REVIEW

A review of the literature indicates a dearth of research in this area of study. To better understand the ethical tensions that may exist for the television weathercaster, it is important to have an understanding of *roles* and the group *norms* that guide the behavior of those who occupy certain roles. After reviewing the sociological literature on roles and norms, I will identify and discuss the various dimensions of the television weathercaster role, identifying opportunities for conflict and tension that may arise within and between the dimensions. This section will conclude with the introduction of the sociological concept of *ethical ambivalence,* an undesirable condition that may take root in situations in which conflict and tension are not recognized, identified, or adequately addressed.

The Ethical Significance of Roles

Psychologists and sociologists have studied roles in the context of human social behavior for many years, concluding that roles are part of the socialization process, helping give a person identity in social organizations (Gold, 1997). Hartley & Hartley (1952) defined a *role* as "an organized pattern of expectancies that relate to the tasks, demeanors, attitudes, values and reciprocal relationships to be maintained by persons occupying specific membership positions and fulfilling definable functions in any group" (p .486). Zurcher (1983) wrote that roles refer to behavior expected of an individual based on the position (status) he/she occupies in a social system. Heiss (1981) went so far as to say that a role "is a set of expectations in the sense that it is what one *should* do" (p. 95, emphasis in the original). Put simply, roles enable individuals to know what is

expected of them and what they can expect from others in a group setting. As such, they are often effective determinants of behavior, both in the normative and descriptive senses, in any social setting. In the normative sense, the concept of role can be used as a guide for what action(s) individuals *should* take in a given situation, based on their commitment to meet the expectations built into the role and the fact that others depend on them to meet those expectations. In the descriptive sense, the concept of role defines what action(s) are actually chosen in a given situation.

Banton (1965) noted that every member of a social unit participates in a reciprocal relationship obligated to certain tasks and responsibilities, entitled to receive services and benefits in recognition of contributions. The conglomeration of responsibilities and entitlements constitute a role. Practically every human being is a member of multiple social units (e.g. family, work organization, church, sports team) and, therefore, has multiple social roles. Accordingly, individuals "tend to organize their behavior in terms of the structurally defined expectations assigned to each role" (Merton, 1957, p. 116).

A role might be formal, codified by authority, or it might be informal, governed by social norms negotiated by members of a group (Jackson, 1960). Examples of roles codified by authority are the coach of a team, the secretary of a decision-making board, and the mother (or father) of a family. There are assigned and assumed responsibilities belonging to each of the above-mentioned social positions: The coach is in charge of making decisions for the team, such as who plays in what position and what strategies will be used; the board secretary is in charge of keeping accurate minutes of meetings; the mother is responsible for taking care of her children. To a great extent, formal role

responsibilities are inflexible, being embedded in social institutions and organizations. Therefore, they are typically well communicated, easily understood, with little confusion or ambiguity as to what behavior is expected.

Informal roles, on the other hand, are not typically codified or delineated. Instead, they are created, interpreted, organized, and modified individually, guided by self-concepts and the individual's interpretation of the social setting. This social-psychological process is referred to as *symbolic interactionism* (Heiss, 1981; Stryker, 1981; Zurcher, 1983). The basic assumptions of symbolic interactionism include: All individuals in a social setting consciously and actively create, interpret and modify roles, developing an understanding of roles through interaction with other group members; all individuals in a social setting consistently try to blend personal desires with role expectations – what they want to do with what they are expected to do (Zurcher, p. 13). There is evidence that informal roles and incumbent expectations are at least as restrictive and compelling as roles which are clearly directed by authority, perhaps even more so (Gold, 1997). Informal roles, having been negotiated by parties occupying those roles, incorporate the personal characteristics of the participants and, thus, the group. They have the power of group influence.

Defining a role is a dynamic process, requiring the incumbent to actively negotiate specifics with other members of the social setting. Turner (1956) separated the role acquisition process into two steps: *role taking*, where the incumbent learns the shared meaning of roles, and *role making*, where the incumbent reshapes the learned role by incorporating his/her personal attitudes. The *role taking* process is informed by Jackson's (1960) five dimensions of role structure. Each of the dimensions may work

individually or in concert with other dimensions as an incumbent learns the shared meaning of roles. *Consensus* is defined as a shared understanding among all group members. *Rigidity* refers to the specificity of the actions required by role incumbents as defined by the group or authority. *Scope* refers to the breadth of actions and responsibilities assigned by the group to the role incumbent. It defines what behavior is allowed and what behavior is required in particular situations.

Formality addresses how the role is defined, either codified in writing by authority (formal) or governed entirely by social norms determined by group members (informal). As with *consensus* and *rigidity*, the group may be defined socially or professionally. *Sanction potential* suggests an incumbent's anticipation of positive or negative reinforcement as a result of behavior. Examples of positive reinforcement include a salary increase, public accolade (formal authority) or group acceptance (informal authority). Examples of negative reinforcement are job termination (formal) and ostracization (informal). Jackson (1960) contended the five dimensions may work either individually or in concert with other dimensions to determine the extent of influence on the behavior of an individual.

Unlike role taking, where the group member learns the extant meaning of the role, in *role making*, the incumbent actively infuses roles with personal characteristics, such as commitment, self-esteem and identity (Gecas & Burke, 1995); and values "shaped by family, religious and cultural environments" (Plaisance and Skewes, 2003, p. 847). There is much evidence suggesting that social roles are inextricably linked with individual identity (Burke, 2004; Heiss, 1981; Merton, 1957). For example, in proposing *Identity Control Theory* as a means of explaining the link(s) between individual identity

and social structure, Burke (2004) wrote, "Identities are the sets of meanings people hold for themselves that define 'what it means' to be who they are as persons, as role occupants, and as group members. These meanings constitute what is called an *identity standard*" (p. 5). So long as there is harmony between the individual's identity standard and his or her perceptions of self-relevant meanings in a social setting, all is well. When there is dissonance between the two, Burke contended that the individual will act in a way that may restore the match between perception and standard.

Research by social psychologists suggests that the relationship between individual identity and group identity (and related behavior) is complex, influenced by several factors related to both individual and group issues, e.g., group legitimacy, group commitment, individual commitment, involvement, and expression (Ellemers, Spears, Doosje, 2002). The complex nature of the role-making process is made even more enigmatic when one considers that it likely occurs every time an interactive group meets. With each assembling of a group -- from its first meeting through all subsequent gatherings -- interactive conduct must be oriented and re-oriented as the role-making process is played and re-played (Hewitt, 1976).

For the television weathercaster, role perception is a critical factor in determining how to act in a particular situation. The role is defined by a conglomeration of factors and forces -- some rigid, some fluid -- combining professional, social and personal influences. For example, the formal, codified aspects are defined by position and authority. The weathercaster's formal position assumes certain responsibilities that come with the title, much like being a parent or the coach of a team dictates basic obligations. For example, by virtue of his/her identified occupation, the weathercaster is expected to

provide a timely, accurate report of what is happening outside with respect to the weather, and what can be expected to occur in the future. This is a basic obligation. Additionally, the person in authority -- for the weathercaster, typically the News Director, the person in charge of the news organization – may add to the rigid, well-defined role characteristics. For example, the News Director may also require the weathercaster to prepare news reports on topics related to the environment.

The informal forces that influence role taking are more varied, flexible, and dynamic. For the weathercaster, the process of "finding one's place" in the newsroom consists of interpreting social and professional expectations utilizing both overt and introspective methods of negotiating meaning. Additionally, in the role-making process, the weathercaster adds his or her personal values and characteristics: things learned and attitudes shaped by a lifetime of personal experiences and cultural influences. Considering the numerous, varied forces that play an instrumental part in the individual's assumption of an occupational role, it is easy to see how, in any given situation, there may be a multitude of prescribed actions and a number of ethically justifiable responses.

For the television weathercaster, ethical tension may result when the numerous, varied forces that influence the role-making and role-taking processes conflict. For example, role expectations may clash with personal values that are steeped in family and cultural upbringing, or rigid requirements of the role defined by authority disagree with characteristics of the role learned informally, through group interaction. In addition to the numerous, varied forces influencing an individual's concept and meaning of a role present in *any* work environment, the television weathercaster must also contend with factors resulting from being part scientist and part journalist.[2] The various dimensions of

the weathercaster role carry different expectations in the form of *norms*, which may conflict in specific situations.

The Ethical Significance of Norms

The term "norm" comes from the Latin "norma," which refers to a carpenter's rule or square. So it is that social scientists consider a *norm* "a rule, standard, or pattern for action" (Williams, 1968, p. 204). It is widely accepted in sociological circles that norms are significant agents in determining actions actually taken by individuals in particular situations. In an article about norms in the *International Encyclopedia of the Social Sciences*, Gibbs (1968) writes, "No concept is invoked more often by social scientists in the explanations of human behavior than 'norm'" (p. 208). Whereas *role* refers to the identity and intrinsic expectations assumed by the *individual*, normative behavior is prescribed by and complied with by members of a particular *group* or *society* (Henderson, 2005; Ullmann-Margalit, 1977). The social psychology pioneer Muzafer Sherif (1936) referred to norms as "a set of rules which regulate the place of the individual in the activities of the group" (p. 2). Norms exist through a collection of expectations about what actions are and are not expected and acceptable in particular situations. Therefore, individual actions conform to expectations about other group members' behaviors and beliefs (Bicchieri, Jeffrey & Skyrms, 1997). These shared expectations form the basis for the development of a behavioral standard for the same or similar situations that may happen in the future (Williams, 1968). In short, *norms* are what we call the performance expectations inherent in social *roles.*

It is important to note that the term *norm* may have several connotations, depending on its usage in modern-day vernacular. For example, a norm can be thought

of in cognate terms such as "custom," "convention," "tradition," and "culture." Jones' (2010) usage of the word to mean "what's done" will inform this essay – that is to say the usage will assume that a norm gives a causal explanation for an individual's behavior. It should be noted that the aforementioned usage of the term can also be used to prescribe behavior; what *should* be done. For the purpose of this analysis, prescriptive expectations of behavior will be referred to as *duties* or *obligations*, terms which will be used interchangeably.

Norms as Determinants of Behavior

To investigate the determinants of individual behavior in a group setting, it makes sense to establish a motivation for individual behavior in general. Beginning in the 18th century, philosophers, economists and mathematicians theorized that human behavior is rational, that is to say, it is based on deliberation (Lee, 1971). The primary impetus for deliberation is to reason about what will bring the best outcome for the individual. For example, the economic theorist Adam Smith (1776, 1933) argued that economic decisions made by an individual are based on what he or she believes will result in maximum personal gain (Marshall, 1920). The English philosopher Jeremy Bentham (1848/1970) wrote that an individual is motivated to action by a perception of the action's consequence, whether it would result in pleasure or pain, the predisposition being to act in a way that would bring overall happiness and avoid overall unpleasantness. Noted 17th century philosopher Thomas Hobbes (1642/1998) contended that individual actions in a group setting are based on a perception of what will bring that individual the most gain. Hobbes wrote, "When people meet, what they are anxious to get is either an advantage for themselves or what is called reputation and honor among their companions" (p. 23).

Similarly, modern-day *decision theory* proposes that, when an individual is confronted with a decision situation, he or she will make the choice that is best for himself or herself (Lee, 1971). The individual will make this choice from a set of possible decisions and will base it on relevant information available at the time. As noted previously, *roles* provide a set of possible decisions based on *norms*, or group expectations, presumed of the *individual.*

Sherif (1936) referred to the complex structure of a social organization, with its customs, values and standards, as a *superstructure.* The superstructure is made up of individual members involved in the pursuit of the satisfaction of needs. Once the superstructure is in place, i.e., once the values and customs have been established, members "have to obey definite rules in their search for their goals" (p. 3). Norms are the rules that must be obeyed. Violating the rules of the superstructure would be counterproductive, making the task of fulfilling goals and meeting needs more difficult. Following the reasoning of philosophical decision theory, which holds that decision making is based largely, if not wholly, on a perception of expected outcomes (Lee, 1971), Jones (2006) asserts individual actions in a social environment are often motivated by expectation(s) of consequence(s). The consequence may be positive (reward/benefit) or negative (punishment/harm). When an individual receives a benefit in exchange for acting in a particular way, that action is likely to be repeated. When an individual receives punishment in exchange for acting in a particular way, that action is likely to be discontinued. Benefit might come in the form of praise, social acceptance, or material reward. Harm might be manifested in condemnation, social rejection, or physical punishment.

The rewards and punishments may be explicitly defined for members of the collective; however, that is not often the case. An individual's experience within a group commonly determines what is considered acceptable behavior. Social psychologists have theorized that the actions of individuals in group settings are motivated by *observation* and *imitation*. Bandura (1973) noted, "People repeatedly observe the actions of others and the occasions on which they are rewarded, ignored, or punished" (p. 48). In a like manner to directly experienced outcomes, behavior that has been *observed* to bring about positive consequences will be repeated; that observed to bring on negative consequences will be avoided. Bandura's (1977) *Social Learning Theory* (SLT) proposed that individuals often learn how to act within a group vicariously by observing how others in similar, socially defined, categories conduct themselves and taking note of the punishments or rewards resulting from their behavior. The information is stored in memory to be used later as a guide for action in a process called *modeling*. The totality of observations (which could be considered *norms*) operates as shortcuts, allowing individuals to incorporate complex patterns of behavior without having to test each one using a tedious, impractical trial-and-error method.

SLT can be used to inform the process a television weathercaster may use to informally define his or her role. As the weathercaster observes the actions of peers in the newsroom, he or she models an idea of how to behave consistently with those actions that seem to elicit encouragement or incentives from individual group members or the group as a whole. For example, if a newsroom employee is praised by peers for extra effort in covering a significant story, the weathercaster may store this observation, later associating extra effort in certain situations with the positive experience of praise from

peers. Modeling's influence in a newsroom setting is supported by Weaver and Wilhoit (1996), who, after an extensive survey of journalists in the United States, reported that "day to day newsroom learning" (p. 110) was cited as the most critical influence in determining attitudes toward journalistic ethics. In a study investigating values and role conceptions of print journalists in the United States, Plaisance and Skewes (2003) concluded that journalistic role priorities are predominantly influenced by the newsroom environment and professional socialization.

If the number of normative influences on the television weathercaster were small or expected behaviors were relatively consistent, perhaps the subject of ethical tensions facing the local television weathercaster would not be worthy of analysis and discussion. However, the television weathercaster -- by virtue of membership in a plurality of diverse social and professional groups -- must deal with numerous normative influences, each containing a set of suggested behaviors. As will be discussed in the next section of this essay, these normative influences may at times conflict, causing the weathercaster to experience uncertainty about the best way to proceed.

These conflicts, if not addressed, may result in *ethical ambivalence* (EA), defined by Jansen and Von Glinow (1985) as "a form of sociological ambivalence in which a) the behaviors, attitudes and norms that are shaped and maintained by the organizational reward system conflict with b) the behaviors, attitudes and norms congruent with the ethical values and judgments of organizational stakeholders" (p. 815). Often within the organization, the conflicts are manifested as *norms* and *counternorms*. An organization's norms help it to integrate the differentiated positions of individuals, streamlining them if you will, into a homogenous collection of expectations. Counternorms, Mills (1983)

noted, allow individuals to have some personal autonomy within the organization. Jansen and Von Glinow pointed out that the successful operation of any organization must balance norms and counternorms. Actions suggested by norms are not feasible in all situations. In any group, there will be the need to allow individuals to "tweak" the system.

Often, norms and counternorms are opposed; they suggest different actions. For example, the organizational norm of "take your time to do the best job possible" is contradicted by the counternorm of "quick and dirty, whatever it takes to get the job done on time." Though the organization may espouse allegiance to the norm, it may actually reward the counternorm, a practice that can create dissonance for the individual. As with any sociological ambivalence (Merton, 1976; Merton & Barber, 1963), EA creates in the individual a feeling of being pulled psychologically in opposite directions. If not addressed, Jansen and Von Glinow (1985) argued that EA "can interfere with the well-being of employees and other stakeholders" (p. 819).

In the discussion that follows, the various dimensions of the local television weathercaster role will be identified with an eye toward bringing some of the numerous norms influencing behavioral expectations into relief. As the real and potential conflicts among these influences are illuminated, it should become easier to comprehend how the weathercaster must negotiate an environment that is fertile for EA.

Dimensions of the Television Weathercaster Role

In an essay analyzing the rhetoric of meteorology displayed on The Weather Channel, Meister (2001) contended that the typical television weathercast makes science relevant to everyday life. To do that, the television weathercaster must be able to discern,

interpret, and communicate that which is arcane to the layman. Meister observed that this is a multi-faceted task, requiring the weathercaster to be both scientist and storyteller. He or she must not only be able to understand the science of meteorology, but also distinguish what makes it important to the audience and explain it in understandable terms. Meister noted, "Although meteorological rhetoric is scientific (relying on quantitative data for purposes of weather prediction), its most prominent rhetorical function involves an expertise in illustrating how natural phenomena relate to the everyday lives of all weather watchers" (p. 415). To perform this function, it is critical not only to be able to understand and apply practical concepts of meteorology, but also to have the ability to explain the outcomes of the science project in a way that is understandable to the lay audience and in a way that relates them to everyday life.

The concept of information being meaningless unless it is contextualized for the audience is not new. Eighty years ago, the distinguished American philosopher Kenneth Burke (1931) maintained that meaning-making as it occurs in an audience is more a factor of the form in which the information is interpreted than the information itself. Bits of information lack significance to audience members unless they are cast into social frameworks that make them relevant to everyday living. Applying Burke's notion to the delivery of information on local television newscasts, Gronbeck (1997) wrote, "News is never comprised of random or isolated data but always put into forms that give it social relevance and justify its publicness" (p. 363). To relate Burke's and Gronbeck's concepts to the television weathercaster, consider that the scientific information gleaned from an understanding of meteorology and its practical application is meaningless to the audience unless it is contextualized in such a way that makes it relevant to everyday life.

Meister (2001) contended that, in order to effectively make the science of meteorology relevant to everyday life, the television weathercaster must take on two personas, must speak with two voices: the scientist/expert and the layman/communicator. In constructing his argument, Meister cited Lessl (1989), who explained the differences between the two voices. The *bardic* voice is the voice of the people, "which confines itself to the world of common sense experience already integral to its audience's identity" (p. 184). The *priestly* voice, in contrast, is didactic and "crosses the boundaries between a particular elite subculture and the broader social groups within which it is nested" (p. 184). The priestly voice recalls a time centuries ago when religious scholars were revered and respected for the knowledge they gained from printed material not commonly available to the layman. When the priest spoke, he carried the authority of expertise and knowledge.

Whereas the "elite subculture" discussed by Lessl consisted of the religious elite, the grouping used in Meister's essay is made up of scientists. Implicit in Meister's essay is the assumption that the typical viewer of a television weathercast does not understand the science of meteorology, the dynamics of the atmosphere, and, therefore, needs a person knowledgeable in the subject – a priest -- to interpret what is happening. But interpreting the information is only half the work of the television meteorologist. The information must be successfully transmitted to the viewer -- hence the *bardic* voice.

Negotiating the dual roles of priest and bard is a task fraught with complexities creating numerous opportunities for tension and conflict. For example, Lessl (1989) wrote, "Because the priestly voice is the agency of an elite subculture, its worth is judged by *two distinct audiences*" (p. 186, emphasis added). One audience is the membership of

the "elite subculture," which in the case of the television weathercaster is the scientific-meteorological community. The other audience is the general public, the lay community for which the information is designed and intended. The priestly communication within the scientific community is extensive, between members of a single culture. The bardic communication is reflexive, using symbols and stories to communicate reflexively to a culture about a culture.

In performing the task of relating the priestly to the bardic, particularly in the context of a television newscast, the weathercaster must take on the dual roles of *scientist* and *journalist*. These are two distinct professional roles.[3] Negotiating role expectations presents numerous opportunities for conflict and tension that, if not addressed, may have adverse consequences for the individual weathercaster, his or her work environment, the professions, the public, and the viewing audience. The inherent conflict between journalist and scientist, bard and priest, lateral communication and vertical communication "descending from above as an epiphanic Word" (Lessl, 1989, p. 185) is at the core of the challenge facing journalists who seek to translate science project into communicative practice.

The Scientific Dimension of the Weathercaster Role

The aspect of science journalism that segregates it as a specialty within journalism in the esoteric nature of its subject matter: Generally, science is beyond the scope of knowledge of the common person. Bucchi (1998) noted that, over the past three centuries, a widening knowledge gap between scientists and the general public has led to greater autonomy for modern science from the lay audience. This autonomy has led to a mystification of science and the scientist that has colored the history of science reporting

in the U.S. press. For example, at the turn of the 20th century, the editor of the publication *The Nation* wrote that, in the minds of the public, the scientist is isolated from society, "appearing akin to the medicine man…being of quasi-supernatural and romantic powers" (Garrison, 1902). By the end of the century, not much had changed. Nelkin (1995) wrote that scientists in the 1990s "appear to be remote but superior wizards, culturally isolated from the mainstream of society" (p. 14). Shortly after World War I, the rapid advancement of scientific research increased public interest in science, creating a burgeoning need for communicators to bridge this knowledge gap between the scientific community and the common person.[4]

The outcome is what Shapin (1990) posited as the "canonical account" of the communicative relationships between science and society, summarized by Bucchi (1998) as: 1) scientific enterprise is too specialized and complicated to be understood by the general public; therefore, 2) a third person is needed to mediate between science/scientist and the audience -- someone who understands the former and can successfully communicate ideas to the latter; and 3) this process should be accomplished by linguistic translation; in other words, the critical elements of scientific project/discourse should be reformulated in a simpler, easier-to-understand language. As Fursich & Lester (1996) wrote, "Science popularization has to be understood as yet another form of communicative practice, of producing meaning and constructing reality" (p. 26).

Numerous studies have suggested, however, that the two occupations view each other with much suspicion. The suspicion arises in part from mutual misunderstandings about motives and expectations originating largely in cultural and professional differences (Dunwoody, Brossard & Dudo, 2009). An extensive study of scientists'

attitudes toward journalists and vice-versa by Hartz and Chappell (1997) suggested that the gap between the two groups is extensive. In fact, the researchers concluded that the divide between journalism and science is wider than that indicated between journalism and other professions such as the military, religion and the economy. Though the Hartz and Chappell study has been criticized for not addressing the history of journalism-scientist conflict and tension – therefore, adding nothing new to existing literature on the topic (Logan, 1999; Palen, 1998) -- it confirms the continued existence of a chasm between the two groups. As Schnabel (2003) wrote, the Hartz and Chappel findings suggested that journalists seemed too ignorant and scientists too arrogant to get along.

Peters et al. (2008) said there are several reasons to expect problems in the relationship between scientists and journalists. For example, the scientific and journalistic cultures may clash over items, such as who controls information, how the information is reported to the public, and what is newsworthy. Ultimately, the researchers concluded, "From a social constructivist point of view, science and journalism construct knowledge about the world according to different principles" (p. 269). In an analysis of how the press covers science, Nelkin (1995) stated, "The communities of science and journalism approach the problem of public communication from different professional perspectives, cultural frames, and political perspectives" (p. 77). A study of 682 journalists and scientific experts by Peters (1995) identified eight areas of conflict between scientists and journalists, chiefly surrounding attitudes toward the role of media in science reporting and how that work should be accomplished. Specifically, tensions resulted from differing opinions about the function of media, writing style, control over the communication process, and influence on public opinion.

Gaskell & Bauer (2006) noted that divergent professional perspectives might cause the journalist and scientist to disagree about how a particular story should be reported, contributing to what the authors called a "climate of moral indignation" (p. 117).

As noted earlier, television weathercasters are increasingly being viewed as their stations' authority on all things pertaining to the environment or science. "As often the only member of their newsrooms who has much, if any science training, many television weathercasters are called on to comment on a wide range of topics beyond their specialty, meteorology" (Wilson, 2008, p. 74). For several years, the expansion of the television weathercaster role has been encouraged by the American Meteorological Society (AMS), the preeminent professional organization for the occupation. In 2006, the AMS encouraged television news managers to view weathercasters who were members of the Society as "station scientists" (AMS, 2006). There is evidence of the role expansion taking place even before the AMS proposition. In a study analyzing perceptions and knowledge about global climate change among television weathercasters, Wilson (2002) found that more than half of respondents said they had reported on the subject.

The Journalistic Dimension of the Weathercaster Role

Gaonkar (1997) contended that the "discursive practices of science contain an unavoidable rhetorical component" (p. 39). However, Lessl (1989) pointed out that the public scientist is typically viewed as an educator, not a persuader; his or her communication is typically pedagogical. However, there are times when "rhetorical demands cause the public scientist to step out momentarily from an instructional role to reflect on broader issues pertaining to the place of science in human interest" (p. 190). For example, a study investigating scientists as public communicators in the United

States by Dunwoody, Brossard and Dudo (2009) suggested that "the prospect of positive intrinsic rewards" is a primary motivating factor for scientists seeking public communication, particularly "a sense that their participation can influence public understanding of science and the role of science in society" (p. 309). Lessl (1989) wrote that, when scientists reflect on science's place in the community at large, they attempt to proselytize the lay person "in such a way to bring about consubstantiality between scientist and non-scientist" in a process Lessl called "the humanizing of science and the scientizing of humans" (p. 190).

There is voluminous research indicating that communicating with the public at large is often fraught with difficulties for the scientist, perhaps because, as Schneider (1986) noted, most scientists are viewed and socialized as *sources* of information, not *disseminators*. That is why the task of communicating science to the masses typically falls to the journalist, a person with direct access to the mass media; a person typically viewed as a disseminator of information. Research by Nelkin (1995) and Wilson (2002) showed that most people in the United States are informed on science topics via the mass media.

For the weathercaster – part source, part disseminator; part priest, part bard -- juggling the pedagogical and persuasive purposes of communication requires negotiating tension that may arise due to conflicts between the expectations of a disseminator and those of an interpreter. These are essentially the two journalistic functions highlighted six decades ago by the Commission on Freedom of the Press (also known as The Hutchins Commission). This committee, after analyzing the purposes of the press in U.S.

democracy, noted the critical responsibility of journalists to report honestly and factually, and to provide a context that gives the facts meaning (Leigh, 1947).

For several decades, research on journalists' attitudes about their work has identified both of these dimensions as being significantly important (Johnstone, Slawski, & Bowman, 1976; Weaver & Wilhoit, 1986; Weaver & Wilhoit, 1996; Weaver, Beam, Brownlee, Voakes & Wilhoit, 2007). In the most recent analysis of journalist's attitudes, the interpretive function – in part defined as "providing analysis and interpretation of complex problems, discussing national policy while it is still being developed, and investigating claims and statements made by the government" – elicited the strongest response from journalists identifying essential characteristics of their profession (Weaver, Beam, Brownlee, Voakes & Wilhoit, 2007, p. 141). Further, of four attitudinal clusters identified by this team of researchers as critical dimensions of a journalist's work (interpretive, disseminator, adversarial, and popular mobilizer), only the interpretive dimension increased its profile compared to prior analyses.

Despite the seeming readiness of journalists to assume these two functions, their fulfillment is replete with potential conflicts. Reporting on scientific topics in particular often demands that facts be placed in context; there is a need for meaning. Writing specifically about the exigency for context in climate change reporting, Ungar (2000) noted, "Science is an encoded form of knowledge that requires translation in order to be understood" (p. 308). Ungar's quote recalls Lessl's (1989) illustration of the bard and priest, and its application as identified by Bucchi (1998): that scientific information (priestly), being above the understanding of the common person, must be translated by an intermediary (bard). When the scientific information is crucial to policy decisions, its

interpretation takes on added significance. As Nelkin (1995) noted, "In light of their influence on public policy, the media today represent a battleground for political and economic interests seeking to convey their views to the public" (p. 77). The television weathercaster attempting to disseminate and interpret environmental news, e.g. climate change, becomes a part of the public policy battleground.

Objectivity-Subjectivity Tension

Examples of scientific/environmental topics with important policy ramifications include disaster preparedness in the wake of Hurricane Katrina, the efficacy of depending on fossil fuels and nuclear power as energy sources, and on a more localized level, government spending on emergency notification systems (e.g. tornado warning sirens). Such subjects may challenge the television weathercaster's ability to be an interpreter as well as a disseminator, to walk the tightrope between value neutrality and making value-laden assertions. The tension becomes critical if the individual believes public safety is at stake.

Anticipating the increasing politicization of the weather, Rosen (1989) noted, "It will be interesting to see what television does as the weather loses its innocence" (p. 32). As the issues of global warming and climate change have indeed become the subject of policy debates, it appears the age of innocence for the television weathercaster has quite possibly come to an end. In October 1997, President Bill Clinton and Vice President Al Gore invited more than 100 television weathercasters to the White House for a "Climate Change Forum."[5] According to a news release by the National Oceanic and Atmospheric Administration (NOAA), the governmental agency hosting the event, the forum would give weathercasters the opportunity to "hear from some of the nation's leading scientists

on global climate change" and would also feature an address from the President and Vice President at the White House. Then-Secretary of the Department of Commerce (NOAA's parent agency) William Daley, noted, "The Administration recognizes the unique contribution that television weathercasters play in educating the public" (NOAA, 1997).

The political nature of the event wasn't lost on interest groups advocating particular policy positions on the subject of climate change. For example, shortly after the forum, an analyst working for the Media Research Center (MRC), a group that claims to track media bias, wrote that the event was not an opportunity to educate television weathercasters about global warming and climate change. Rather, MRC said, it was an effort to control opinion: "The strategy behind the invitation was the hope the weathermen would echo the Clintonian line during the then-upcoming Kyoto Global Warming Conference in December" (Media Research Center, 1997). In 2009, the U.S. House of Representatives considered historic legislation on the subject of climate change. According to lobbying records, more than 1,000 companies and interest groups were working to influence that vote on Capitol Hill, spending many millions of dollars combined (The Center for Public Integrity, 2011). Clearly, having any influence on policy decisions being considered on this subject is valuable, which is where the television weathercaster as "station scientist" enters the discussion.

In a democracy such as that which exists in the United States, the deliberative process of decision making puts a premium on information that is disseminated to the public, and particularly to decision makers. The German sociologist Jurgen Habermas (1962, 1991) uses the illustration of a "public sphere" to explain how a good democracy

functions. The public sphere is where the issues and problems of the day are discussed by citizens, the end result being outcomes and solutions that are generally agreed to be best for the society as a whole. The information available to decision makers plays an important role in the choices that are made and policies that are established. As a result, the purveyors of information are influential.

Over the past two decades, studies have shown that Americans report getting their news primarily from local television newscasts (e.g., Lin, 1992; RTNDF, 2006). Research also indicates that most people are informed about science by the mass media (Nelkin, 1995, Wilson, 1995), with television serving as the primary source. Research suggests audience views on science subjects may be shaped by how the stories are reported. For example, the way a climate change story is framed impacts how the audience views the subject. A study by Corbett & Durfee (2004) found a significant difference in readers' assessments of the certainty of global warming across two different treatments of stories, one containing context and controversy and one containing neither context nor controversy. The influence of the news media – particularly television – in setting the agenda for climate change stories and determining how those stories will be framed for the audience is why Boykoff (2008) called the news media "powerful vehicles for communication of climate science," whose reporting on the subject can have "critical implications for policy" (p. 3).

Nevertheless, news media are expected to frame such stories in a way that is recognized as "objective." In an analysis of news media coverage of "contested science," Dunwoody (2005) stated, "In our American culture, journalists are assigned a transmitter role, for better or worse, and going outside the role is often recognized by readers as a

violation of expectations. Even if a journalist were an expert at something, readers will react badly to an effort to declare one position on an issue 'more true' than another" (p. 90). Dunwoody's point is to note the extent to which news consumers in the United States prefer reporters to remain as "objective" as possible, the term defined by audience research and scholars as consisting, at minimum, of being a) accurate and b) unbiased (Heider, McCombs & Poindexter, 2005; Martin, 1997).

Pure objectivity -- defined as being wholly dispassionate, non-interpretive, and value-free -- is generally thought to exist only as an ideal; it is practically impossible to achieve. With respect to journalistic objectivity, Ward (2006) noted, "Journalists neither manufacture news nor simply record stimuli. They interpret their experiences against the background of their conceptual schemes. The reporter's concepts affect how he or she interprets what he or she sees, which in turn alters how he or she conceives the event" (p. 297). Even in the scientific realm, where objective observation is a prerequisite for accurate findings, it is understood that the human experience cannot be expunged. In an essay classifying concepts of scientific objectivity, Hanna (2004) concluded, "Despite the expanding role of effective methods in scientific practice—the application of which enhances the explicit, internal objectivity (transparency and neutrality) of scientific accomplishments—the endogenous process of generating and selecting those effective methods is deeply imbued with human values, both epistemic and social" (p. 357). Therefore, objectivity is viewed as a regulative ideal, a goal for which journalists should strive, though in practice, it is understood to be unattainable.

Journalistic objectivity in this country has roots in scientific objectivity and the scientific method: the process of using induction and deduction to establish fact and to

dispassionately report findings (Ward, 2004). To determine and declare "truth" in situations in which more than one "finding" is possible may be seen as departing the realm of *fact* and entering the realm of *value* -- going beyond dispassionately reporting the facts, to suggesting how individuals should think about or react to them. To put facts into context or to provide in-depth understanding may violate the "unbiased" requirement of journalistic objectivity in the sense of *value neutrality* (Martin, 1997), and thus may be considered to be morally irresponsible.

However, to report facts and findings that are likely to be beyond the understanding of the common person (e.g. matters scientific) without providing context or meaning may also be considered to be irresponsible. For example, environmental reporter Bud Ward (2008) criticized journalists writing about climate change for substituting balance (another way of demonstrating lack of bias in journalistic objectivity) for context, calling the simple balancing of competing views without supplying background an "easy out." Addressing U.S. media coverage of climate change, Boykin (2008) accused television journalists of malfeasance "by way of the institutionalized journalistic norm of balanced reporting," which effectuates "an informational bias" (p. 1) by making all sides appear equal, when that may not be the case.

Conclusion

In summary, the role of the television weathercaster is much more complex than it seems at first glance. Accomplishing the various tasks expected with this role challenges the weathercaster to walk a line between two distinctly different professions – science and journalism – each with distinctly different expectations. The weathercaster also has

to walk the line between two distinct journalistic functions – those of disseminator and interpreter. Thus, there are a number of tensions inherent in the weathercaster role: between priest and bard, scientist and journalist, disseminator and interpreter, dispassionate observer and informed advocate. For example, the television weathercaster functioning as station scientist will feel obligated to report on climate change in a manner that conveys value neutrality and, at the same time, provides context that could be perceived as "biased."

As noted earlier, such behavioral tensions create a ripe environment for *ethical ambivalence* (EA), a form of sociological ambivalence, the feeling of being pulled psychologically in different directions, "in which (a) the behaviors, attitudes and norms that are shaped and maintained by the organization reward system conflict with (b) the behaviors, attitudes, and norms congruent with the ethical values and judgments of organizational stakeholders" (Jansen & Von Glinow, 1985, p. 815). Left unaddressed, EA may "interfere with the well-being of employees and other stakeholders" (Jansen & Von Glinow, 1985, p. 819) with consequences ranging from the benign to serious. The stakeholders in the case of the weathercaster include the individual, the newsroom, the television station, the viewers, policy makers, and the community at large. The next chapter will identify an ethical foundation that can provide guidance to television weathercasters as they attempt to negotiate the ethical tensions resulting from the conflicting norms inherent in the varied dimensions of their complex role.

CHAPTER III

NORMATIVE FRAMEWORK AND ANALYTICAL PROCEDURES

When ethical obligations conflict, the tension created may result in unethical behavior, or at least, ethical paralysis when a moral agent decides to take no action at all in the seeming absence of a "right" action. Therefore, it is important to identify a means of deciding what is right and wrong – an ethical foundation – that will serve as a guide in such situations. Normative ethical theory can provide such a foundation.

In considering normative ethical theory, it is important to note the difference between *descriptive* ethics and *normative* ethics. Boeyink and Borden (2010) differentiated the two by noting that the first (*descriptive)* is how things are and the second (*normative)* is how things should be. Regarding normative ethics, Kagan (1998) wrote that it "involves substantive proposals concerning how to act, how to live, or what kind of person to be; it attempts to state and defend the most basic principles governing these matters" (p. 2). Noted contemporary philosopher Peter Singer (1994) wrote, "Ethics is about how we ought to live. What makes an action the right, rather than the wrong, thing to do? What should our goals be" (p. 3)? Descriptive ethics, in contrast, refers to a specific code of conduct used by a society, group or individual as a guideline for right action (Gert, 2004) – the kind of behavioral determinants referred to earlier as *norms*.

Wallace's (2009) normative notion of *situated norms* bridges the theoretical gap between the normative and descriptive senses of the term *norm*. He defines norms as "learned activities taken to be an appropriate way to proceed in a certain domain" (p. 33). That is, they both *describe* accepted practice and *prescribe* it. Factors such as an

individual's collective experience and personal history of encounters with the world are considered when interpreting situated norms; with enough such experience, one develops moral expertise regarding certain domains and the web of norms that structure them. With regard to determining Right action in a given circumstance, Wallace (2009) wrote, "It is quixotic to attempt to resolve the problem by manipulating concepts in the abstract, by attending only to the manifest content of the pertinent norms and overlooking their latent content due to the actual social context" (p. 68). Wallace suggested that "concrete issues" must be considered "in the context of thick particular social artifacts" (p. 69) in order to understand the deeper, latent, meaning of norms that lies beneath their manifest, or surface, meaning. This task is analogical to the idea of following the "spirit of the law," not just its "letter." For example, when it comes to a norm such as "Tell the truth," we have to consider what this means in the context of interpreting and communicating scientific forecasts of atmospheric trends and conditions for a television audience. Among the factors we will have to consider are the capacities and limitations of the available technology, the weathercaster, the station, and the audience. If we can attend to truthfulness in this careful manner, we have a better chance of responding to unforeseen moral complications in ways that align with weathercasting's broader purpose.

This study will be normative (in the ethical sense), as opposed to descriptive. First, I will discuss the major normative orientations in the study of ethics. Next, I will explain the ethical theory that is best suited to resolve the sort of ethical tensions identified in the previous chapter and relate that theory to the weathercaster role. This chapter ends with the research questions that will guide my analysis of an issue with the potential to create ethical ambivalence for weathercasters: climate change reporting.

Major Approaches to Normative Ethics

There are a number of philosophical approaches that can be used to determine what makes a right action right and a wrong action wrong. These approaches are essentially based on either a) an action's outcomes (consequences), or b) an action's antecedent reasoning. The first approach is commonly called *consequentialism,* and the second approach is commonly called *deontology*.

Consequentialism

For the consequentialist, "the moral status of an action, i.e., whether it is morally obligatory, right or wrong, is determined directly by facts about (the intrinsic value of) its outcome" (Carlson, 1995, p. 5). The "best" course of action is one that brings about the best outcome(s). If the intrinsic value of the outcome of action *a* is judged to be better than the intrinsic value of the outcome of action *b,* then action *a* is the right action. Indeed, consequentialism holds that morality *requires* that individuals act only in ways that promote the best overall state of affairs. Hurley (2009) said of this approach, "It never permits us to bring about a worse state of affairs when a better one is available" (p. 1). Perhaps the most popular of the consequentialist theories, *utilitarianism,* contends that "actions are right in proportion as they tend to promote happiness, wrong as they tend to produce the reverse of happiness" (Mill, 1863/1998, p. 55). The 20th century utilitarian philosopher G. E. Moore (1903) wrote, "To ask what kind of actions we ought to perform, or what kind of conduct is right, is to ask what kind of effects such action and conduct will produce" (p. 146). The effects of actions and conduct are measured against the group as opposed to the individual, which differentiates utilitarianism from hedonism. Applying utilitarianism, or the *utility principle* as it is sometimes referred, is complex on

many levels. For example, it must *assume* particular outcomes, which must be then assumed to be in the best interest of the greatest number. Noted 18th Century utilitarian philosopher Jeremy Bentham (1848/1970) stated this principle as that which "approves or disapproves of every action whatsoever, according to the tendency which it appears to have to augment or diminish the happiness of the party whose interest is in question" (p. 12). Bentham believed that sensations such as pleasure and pain could be quantified, making it possible to mathematically compare various courses of action by multiplying the values by the likelihood of their occurrence(s).

A crude example of a utilitarian calculation might be articulated by the following example: A person has $100 with which he wishes to provide food to as many who are destitute and hungry as possible. Should he take the money to a grocery store and buy as much food as possible, or should he use the money to buy a lottery ticket, hoping to increase the original amount by winning the lottery, making it possible to feed many more? Using the aforementioned calculation, the very low probability of winning the lottery more than counterbalances the potential of creating happiness for a greater number of people. Therefore, the person would not be advised to spend the money on a lottery ticket. But what if the person with the $100 were a shrewd investor who believed he could increase the amount over a short amount of time by playing the stock market? How does one calculate the likelihood of increasing the original amount, and the effect that might have on the overall "felicific calculus"?

Deontology

In contrast to consequentialism, the *deontological* approach suggests that "rightness or wrongness of actions depends on considerations other than or in addition to

consequences" (Spielthenner, 2005, p. 217). Blackburn (1998) distilled this philosophical approach: "We think deontologically when we think that there are some things that we 'simply must' do, or others that we 'simply must not' do" (p. 25). Thus, deontology is distinguished from outcome- or consequence-based ethical approaches by claiming that one or more moral obligations or duties ground right actions.[6]

Among deontologists, there are two approaches regarding the nature of duty: one absolutist approach requiring strict adherence to moral laws (imperatives) and a pliable approach suggesting deliberation on relevant circumstances that bear on the application of duties. Like all deontologists, the 18th century philosopher Immanuel Kant, the standard bearer for the first approach, argued that the ethical merit of an action is determined by antecedent reasoning. Kant (1797, 1996) defines a Right action as "the sum of the conditions under which the choice of one can be united with the choice of another in accordance with a universal law of freedom" (p. 230).

The rationale for an action should be founded on personal rules, or duties, which act as guides for behavior. These "personal rules" are intrinsically good. Therefore, actions emanating from them are good, and therefore, Right. Kant (1797/1996) referred to this as *internal lawgiving* or *ethical lawgiving*, distinguishing it from *external lawgiving*, writing, "Ethical lawgiving (even if the duties might be external) is that which *cannot* be external. So it is an external duty to keep a promise made in a contract; but the command to do this merely because it is a duty, without regard for any other incentive, belongs to *internal* lawgiving alone" [emphases in the original] (p. 21). In other words, an individual's duty or obligation to act in a particular way is based on an internal rule that exists at all times for all people, without regard for consequences, a concept

commonly referred to as Kant's *universal law of Right,* or *categorical imperative.* Willaschek (2002) noted, "This universal law of Right is formulated as a prescriptive rule, or, in Kantian terms, as an *imperative,* which does not describe what people do, but prescribes what they *ought* to do" [emphases in the original] (p. 65). Kant referred to the obligations resulting from the imperative as *moral laws*, which are the result of reasoning and are equally applicable to, and binding on, all persons.

The rigid nature of Kant's categorical imperative may present a problem in certain situations in which moral laws conflict. For example, telling the truth and doing no harm are accepted by deontologists as moral laws, as imperatives. Consider a case in which keeping the first imperative violates the second: A man with a gun is chasing an unarmed man with the intent of killing him on sight. The unarmed man runs into an alley and is safely out of the sight of the man who would do him great harm. A bystander sees the man run into the alley and is then confronted by the armed man, who asks the location of the unarmed man. In this hypothetical case, to keep the imperative to be truthful would be to violate the imperative to cause no harm to another.

Moral pluralism. The philosopher W.D. Ross (1930) modified Kant's approach of rigid adherence to imperatives by introducing a *pluralistic* approach, maintaining that there may be more than one duty to consider when determining a right action. This approach is commonly referred to as *moral pluralism*, defined by Gaut (2002) as "the theory that there is a plurality of first-order moral principles stating what one has moral reason to do; that these principles may conflict in their application to particular cases; and that there is no higher-order moral principle which in each case of conflict ranks one first-order principle above another" (p. 138). Unlike the Kantian approach in which "the

requirements of morality have an absolute and categorical status" (Duff, 1980, p. 223), Ross' approach is grounded in the concept "that there is often more than one ethical value simultaneously 'competing' for preeminence in our ethical decision making" (Patterson & Wilkins, 1994, p.12). As Timmons (2002) wrote, "Morality might be too complex to be captured in a single principle specifying some one underlying feature that determines the deontic status of any action" (p. 190). In terms of the nature of right action, moral pluralism is grounded in two claims: 1) there is a plurality of basic moral rules, and 2) there is no underlying principle that serves to justify these moral rules.

The notion that the nature of right action cannot be reduced to one morally relevant feature is in opposition to the deontological concept of imperative as well as consequentialist calculi and decision trees. Ross (among other of his contemporaries, e.g. Broad [1951], Ewing [1947], and Prichard [1912]) contended that the nature of right action cannot be reduced to a singular principle or a system of general moral principles, a conclusion that Broad (1951) admitted "compares ill with the sweet simplicity of Utilitarianism" (p. 223). In Ross' (1930) seminal work *The Right and the Good*, he distinguished between the *monistic* approach, the view that right action can be based on a singular moral principle, and the *pluralistic* approach, that there may be more than one irreconcilable moral principle, by contrasting the absolute nature of mathematical properties with the subjective nature of rightness. Ross wrote, "No mathematical object ever has two characteristics that tend to give it opposite resultant characteristics…moral acts always have different characteristics that tend to make them at the same time right and wrong" (p. 33). For this reason, Ross concluded, "No act is ever, in virtue of falling under some general description, necessarily actually right; its rightness depends on its

whole nature and not on any element in it" (p. 33).

The pluralistic approach -- that there may be more than one moral principle or rule governing right action – acknowledges the problem of conflicting principles. But what should one do when the principles determining the nature of rightness includes two (or more) that stand in opposition to each other -- for example, when keeping a promise made to person *a* results in harm to person *b*? Ross' (1930) solution is to suppose that duties (obligations), which a strict Kantian would consider to be absolute (imperative), might be more practically viewed as having variable weight. For example, instead of considering "do not lie" a categorical imperative, to be adhered to at any cost, the duty of being truthful is assigned a significance (weight) which is then compared to that of any competing duty, e.g. "do no harm," in a deliberative process. Ross suggested a list of *prima-facie duties* – variable weight duties -- that can be used to determine right action in particular situations. Ross refers to these duties as *conditional*, contending that each obliges or justifies an action unless performing the action creates conflict with another, more important, duty in a given circumstance.

Ross (1930) identified seven *prima-facie* duties that constitute morally obligatory actions: duties resting on a direct or implicit promise (*duties of fidelity*) duties resting on a previous wrongful act, for example, to make amends for damage done (*duties of reparation*); duties resting on previous acts of other people, to repay others for favorable acts performed for our benefit or enjoyment (*duties of gratitude*); duties to interrupt a distribution of happiness or pleasure to an individual who is not deserving of such (*duties of justice*); duties to provide a better world with respect to virtue, intelligence or pleasure to those who are deserving (*duties of beneficence*); duties to improve our own conditions

with respect to virtue and/or intelligence (*duties of self-improvement*); and duties to avoid bringing harm to others (*duties of non-maleficence*).

Ross (1930) referred to the "apprehension of the *prima-facie* rightness of certain types of act," arguing that certain right acts (e.g. *prima-facie* duties) are as self-evident as any mathematical axiom, "not in the sense that it is evident from the beginning of our lives, or as soon as we attend to the proposition for the first time, but in the sense that when we have reached sufficient mental maturity and have given sufficient attention to the proposition it is evident without any need of proof, or of evidence beyond itself" (p. 29).

Ross offered no guidelines, standards or formulae for determining right action when *prima-facie* duties conflict. When duties conflict, he wrote, "What I have to do is to study the situation as fully as I can until I form the considered opinion (it is never more) that in the circumstances one of them is more incumbent than any other, then I am bound to think that to do this *prima-facie* duty is my duty *sans phrase* in the situation" (p. 19). Ross called this the *duty proper*. Applying this concept to the above-mentioned hypothetical situation, the bystander would not be compelled to reveal the location of the unarmed man. He/she could instead deliberate (rather quickly, obviously) between two duties (to fidelity and non-maleficence), determining non-maleficence to be the *duty proper*, subjugating the duty to fidelity, justifying the telling of a lie.

Ethical Intuitionism

Wallace (2009) noted that deliberation is an attempt to bring competing motives for action into harmony: "The problems people confront in their actions typically take the form, 'How am I to be faithful to this norm while at the same time continuing to observe

effectively the many other norms that pertain to what I am now doing?'" (p. 21). But how exactly does deliberation about one's *duty proper* work? An important characteristic of Rossian deontology is the concept of *ethical intuitionism* and its role in determining rightness. For the purposes of this study, the definition of intuitionism is provided by Stratton-Lake (2002): "that certain basic moral propositions are self-evident, and thus can be known directly by intuition" (p. 18). In other words, intuitionism is the belief that an individual can know what is "right" intuitively (also called *direct cognition*) without founding that knowledge on proofs, theories, or moral laws (Roeser, 2011). The 18th century philosopher Thomas Reid (1785/1969) wrote, "When men's faculties are ripe, the first principles of morals, into which all moral reasoning may be resolved, are perceived intuitively, and in a manner more analogous to the perception of sense than to the conclusions of demonstrative reasoning" (p. 727).

Audi (1996) proposed four main characteristics of an intuition: 1) it must be non-inferential, that is to say not founded on a premise; 2) it must be a moderately firm cognition: "A mere inclination to believe is not an intuition; an intuition tends to be a 'conviction'" (p. 110); 3) it must be formed in the light of its (their) propositional object(s), a characteristic that suggests reflection and deliberation; and 4) it must be pre-theoretical -- that is, neither dependent on theories nor theories themselves.

Intuitionism has no shortage of detractors among philosophers. Indeed, as one critic wrote, "The introduction of the word 'intuition' by a moral philosopher is always a signal that something has gone badly wrong with an argument" (MacIntyre, 1981, p. 67). Among the objections to the intuitionist approach are that it is: a) *unreliable* because, among other things, human beings are not impartial and are emotional in ways that cloud

judgment (Sinnot-Armstrong, 2006); b) *arbitrary*, being grounded in emotions which, in order to be defensible must be similarly felt by a population of individuals in the same sphere (Nichols, 2004); c) is a *useless moral epistemology* because there is no method of determining how to decide between conflicting intuitions (Ayer, 1952); and d) is *prejudicial*, simply confirming what we already "know" to be true (MacIntyre, 1966).[7]

Essentially, the objections to intuitionism, specifically as applied by Ross (1930), spring from the absence of a procedure or method to determine justification for particular action in cases when there are opposing moral evaluations. As Timmons (1996) wrote, "The problem is supposed to be that unless there is some general covering rule or procedure that is to be followed in coming to some overall moral evaluation about the action, then any resulting moral judgment on the agent's part will be arbitrary and hence unjustified" (p. 315).

Defenders of ethical intuitionism point out that intuitions are not so abstract, instantaneous, and undefinable as to preclude deliberation. In fact, intuitionist philosophers argue that the *deliberative* and *reflective* nature of the concept supports its validity. Intuition then is far more substantial than a whim or a feeling; it springs from a lifetime of experience distilled through serious contemplation into decisions about what is right and what is wrong. Audi (2004) wrote, "There is a sense in which, although an intuition (or an intuitive judgment) is not grounded in a proof or argument, it *can* be a conclusion formed through rational inquiry or searching reflection" (p. 45, emphasis in original). As such, he noted, "Intuitions, then, are not properly conceived as arbitrary or as isolated from like cognitions on the part of others. Many have a basis in reflection and are shared by people who differ greatly in experience and outlook" (p. 47). Ross (1930)

contended, in fact, that it is the accumulation of the moral reflection of many generations that serves as the foundation of our moral convictions.

By appealing to intuition, in other words, Ross (1930) was charging us with the responsibility of *discernment*: a weighty, arduous task requiring a sober consideration of all morally significant factors rather than relying necessarily on rules or decision procedures. In matters of ethics, the distinction between the rigidity of rules and the flexibility of discernment was enunciated millennia ago by Aristotle (1924), who differentiated scientific knowledge (*episteme*) from practical wisdom (*phronesis*): "The intellect masters the basic definitions of a science, which are not further demonstrable and argues from these definitions; but *phronesis* deals with the 'ultimate particular,' and this is an object of perception rather than *episteme.*" Jonsen and Toulmin (1988) encapsulated the concept of phronesis, or discernment, by writing, "Ethical decisions and judgments are unsuited to rigorous 'proofs' based on appeals to universal, invariable, or 'axiomatic' principles. Instead, they involve reasons, principles, and certainties of a distinct and distinctive kind" (pp. 66-67).

Larmore (1987) called the extra ingredient that "seems so significant about the exercise of judgment" (p. 19) *creative insight,* recalling Ryle's (1949) differentiation between *knowing how* and *knowing that.* Ryle (1949) argued the distinction between the two lies in the *reflection* that takes place before an individual acts. To practice moral judgment – knowing how as opposed to knowing that – "is to do a bit of theory and then to do a bit of practice" (p. 29). According to Audi (1996), the reflective process "may be as brief as simply focusing clearly on the proposition or it may require many sittings, possibly spread over many years" (p. 119). Ultimately, we strive for a resolution that

philosopher John Rawls (1971) termed *reflective equilibrium*, a process of moving back and forth between principles and judgments until "our-principles …match our considered judgments duly pruned and adjusted" (p. 20).

The Duties of the Local Television Weathercaster

Ross' (1930) *prima-facie duties* can be a useful tool for establishing the ethical obligations of the local television weathercaster, considering the consequences of his or her choices while not reducing all moral choice to just this factor, as consequentialists do. His pluralistic approach to ethics acknowledges the moral significance of ethical ambivalence caused by conflicting duties within the weathercaster role and provides direction about how to deliberate toward right action when such conflicts cannot be avoided.

Duties of Fidelity

Ross (1930) described *duties of fidelity* as duties "resting on a promise or what may fairly be called an implicit promise" (p. 21). Television weathercasters are constrained by numerous promises, both implicit and explicit. These promises are made to several different categories of groups or individuals, e.g. the television station as employer, the meteorological/scientific community, the journalism community, the viewers of the television station, and to himself/herself as an individual.

Chief among promises is that of being truthful, a general obligation that is basic to everyone in society. Without a minimal level of adherence to truthfulness, all information exchanged in a society would be worthless, for it could never be counted upon. Chaos would reign. Bok (1989) noted, "This is why some level of truthfulness has always been seen as essential to human society, no matter how deficient the observance

of other moral principles" (p. 18). Obviously, to knowingly disseminate information that is incorrect is to violate the general moral obligation to be truthful, to violate Ross' duty of fidelity.

In addition to a *general* obligation to truthfulness that is shared by all members of society, the television weathercaster has *particular* obligations to fidelity based on factors specific to his/her situation, specifically, promises made to the work organization, to profession, to the audience, and to himself/herself as an individual.

Fidelity to organization. By virtue of being employed by a television station, the weathercaster is obligated to fulfill the responsibilities assigned by the employer – to hold up his/her end of the bargain -- in exchange for an agreed-upon reward, typically a salary or some other form of compensation. In the case of the weathercaster, he or she is assigned the responsibility of delivering accurate information pertaining to weather conditions, including making forecasts of what type(s) of weather can be expected. In performing these tasks, the weathercaster will be fulfilling what Hodges (1986) referred to as a "contracted responsibility," where "certain obligations are perceived by both parties to exist in consequence of a relationship consciously and deliberately entered," (p. 17).

Elliott (1986) suggested that, having made the free choice to join an established news organization, members are obligated to keep explicit and implied promises made by that organization. She referred to this as a *promise-based* category of responsibility, writing, "News organizations have made moral contracts – promises – to provide accurate material of interest and importance" (p. 39). By providing accurate weather information, weathercasters will be carrying out what is typically a stated mission of the

television station, fulfilling an explicit promise to serve the community and to act in its best interest.

Fidelity to profession. The television weathercaster is also responsible for promises inherent to the profession. As noted earlier, weathercasters can often claim membership in two distinctly different professional communities: journalism and science. Because television weathercasters are typically members of a newsroom, they regularly participate and interact with other journalists in the context of a newscast and share the task of disseminating useful information. Therefore, it is reasonable to consider them de facto journalists, subject to the promises made by the journalistic profession.

Journalists in the United States have made several promises regarding ethical behavior via written codes (Singer, 2003). One of the most widely known and recognized codes among journalists in the United States is the Society of Professional Journalists' (SPJ) Code of Ethics, which instructs journalists to, among other things, seek and report the truth fairly, acting independently without obligation to any special interest (Society of Professional Journalists, 1996). The Code essentially offers a benchmark of behavior for journalists based on service to society and privileging public needs over public wants (Borden & Pritchard, 2001). A person who either claims to be a member of a profession or is willingly identified as such agrees to pursue the moral ideals and responsibilities associated with that profession (Davis, 2004; Elliott, 1986). Therefore, anyone identified as a journalist assumes the obligation(s) of maintaining the standards of conduct defined by and expected of members of the journalism profession, primarily to be truthful, fair, unbiased, independent, and neutral.[8]

In addition to being part journalist, the television weathercaster, as noted earlier, is part scientist and has been encouraged by the most prominent scientific organization for television weathercasters, the American Meteorological Society (AMS), to act in the capacity of "station scientists." Just as the Society of Professional Journalists has its Code of Ethics, the American Meteorological Society also has a code of conduct – called Guidelines for Professional Conduct -- which defines ethical behavior, and sets a standard for determining moral action (American Meteorological Society, 2006). The AMS Guidelines encourage truthfulness, transparency, and working for the public good. They AMS Guidelines also expect members to remain current with the science, to "endeavor to keep abreast of relevant scientific and technical developments… to continuously strive to improve their professional abilities."

Although the SPJ and AMS codes differ somewhat of necessity, they each serve to promote two attitudes that are fundamentally important to members of a profession: the dedication to the public good over personal gain and an objective attitude in making judgments and in dealing with problems (Ward, 2004). A person claiming to be a member of a profession implicitly agrees to pursue the moral ideals and responsibilities associated with that profession (Davis, 2004; Elliott, 1986). Therefore, the local television weathercaster, by virtue of his/her association with the journalism and scientific professions, is obligated to act in a way consistent with those ideals and commitments that constitute promises. Failure to keep those promises is a breach of Ross' duties of fidelity.

Fidelity to audience. The television weathercaster must also fulfill promises made to the audience who actually watches the newscast. As noted earlier, information

media outlets typically make explicit promises to their readers, listeners or viewers regarding a particular level of performance. For example, for more than 100 years, the masthead of the *New York Times* has contained the pledge, "All the news that's fit to print." Likewise, television stations commonly air promotional advertisements claiming to have the best news team, the most aggressive investigative journalists, and the most accurate weather forecasters. A recent study of television weathercasts on five commercial television stations by Daniels & Loggins (2010) found that claims of accuracy and technological superiority (specifically with regard to radar technology) were so numerous that they diluted one's ability to differentiate between the presentations. These claims represent promises made to the audience by the television station via its news organization. In an essay establishing foundations of journalists' responsibilities, Elliott (1986) wrote that members of a news organization "have an obligation to keep the promises that their news organization makes and to ensure that the organization is keeping its promises in a broad sense" (p. 40).

In addition to the explicit promises made to viewers, in order to keep Ross' duties of fidelity, the television weathercaster must keep implicit promises that bind him or her by virtue of being identified with a news organization, such as providing truthful, timely, and useful information. Research investigating preferences of local television news viewers by Lin (1992) indicates that viewers *assume* they receive "quality reports" from the newscasts they watch, the term "quality" defined loosely as good coverage of a given subject matter. To do less than provide what could be reasonably considered a quality report would be to violate the implied promise made to viewers, to violate Ross' duties of fidelity, and would be considered unethical.

Fidelity to society. In the United States, there is an additional promise to which journalists are beholden: to provide a democratic society the information it needs to function properly; ostensibly, what the democracy needs to make good decisions. Elliott (1986) referred to this obligation as *purpose-based.* In the democratic model of governance, Habermas (1971) conceived of the *public sphere* -- an arena of public discourse where members of civil society work out solutions to identified problems through interactive and rational persuasion -- as an integral part of a healthy democracy. Barger & Barney (2004) contend that the "good health and well-being of society" (p. 195) depend on citizens constantly gathering and interpreting information relevant to their ever-changing environment. Because of its ability to reach vast audiences, the mass media are uniquely suited to fulfill the purpose of informing the citizenry effectively and efficiently (Hodges, 1986, Noelle-Neumann, 1974). The importance of the role of disseminator of information -- of a "disinterested and objective conveyor of facts" (Clay, 1997, p. 475) -- to a vibrant democracy is recognized by the protection given the news media by the United States Constitution, a legal protection upheld by the United States Supreme Court. This *quid pro quo* constitutes what Hodges (1986) calls "an implied covenant with society" (p. 19), a contracted responsibility that establishes a moral obligation to provide accurate information to society. Obviously, the information must be truthful, else it is not only useless, but possibly even detrimental to society and the covenant is broken. As Borden & Pritchard (2001) note, if members of a society cannot trust that the messages coming from their information sources are true, "they are stripped of their ability to make well-informed choices" (p. 76).

Duties of Beneficence

Ross (1930) defined these duties as "resting on the mere fact that there are other beings in the world whose condition we can make better in respect of virtue, or of intelligence, or of pleasure" (p. 21). This duty is related to Elliott's (1986) concept of the media's *power*, which rests largely in its function as a popular source for day-to-day information, some of which may be used to make important decisions affecting society (Hagen, 1992). In a recent survey conducted for the Radio and Television News Directors Foundation (2006), the vast majority of respondents cited a mass media channel as a main source of news information. Because the media are ubiquitous, members of society often develop a dependence on media channels to provide daily information, leading to the media's growing influence (Salmon & Glynn, 1996). For example, decades of research studying the agenda-setting aspect of mass media have suggested that the amount of media coverage an issue receives is often an important determinant in public awareness of the issue (McCombs & Shaw, 1993). Researchers Gamson, Croteau, Hoynes and Sasson (1992) suggest that, as purveyors of messages which, collectively, define culture, the mass media have the power to effectively construct reality for members of a society.

Elliott (1986) said that those wielding power in any society have a responsibility to that society, an idea that can be traced back to the earliest known philosophers: "Philosophers from Plato forward have argued that no matter how particular persons come to have power within society, they have an obligation to act in a way that is in the interest of the people whom they affect" (p. 35). The television weathercaster has opportunity to use the power and influence of the media to better the condition(s) of

others in a number of ways. For example, in performing the day-to-day task of providing accurate, timely weather information, the weathercaster can improve the condition of those who watch/listen and plan accordingly. Hodges (1986) refers to this function of the media as the "bulletin board role," announcing bits of information that are rather mundane, not glamorous or intrinsically exciting, but collectively, "make daily life better, simpler, safer, more comfortable, and often more enjoyable" (p. 29). There is little doubt, as Hodges noted, that having an umbrella on a rainy day can make life a little more comfortable. Inasmuch as one has prepared for the rain as a result of a weathercast, the weathercaster has contributed a benefit. Additionally, as Meister (2001) noted, by making the science of weather relevant to daily life, the television weathercaster makes nature "consumable and cultural," benefitting society by encouraging commerce and culture: "If nature (or the earth's atmosphere) is given a value and discussed in relation to culture, we often interpret it in relation to leisure, pleasure, comfort, and status" (p. 426).

In a different, yet still beneficent, use of television's influence on society, the weathercaster might improve the condition of others by participating in efforts that attempt to benefit community. For example, he/she might serve as a spokesperson for a campaign to improve literacy rates, or to collect winter weather wear (e.g. coats, hats, gloves) to be distributed to the needy.

In a larger, more esoteric application of media influence and power, the television weathercaster might serve as community informer on science/environment/weather topics which relate to public good or public safety. This role, as community informer, is critical to the proper functioning of Habermas' (1971) *public sphere*, providing useful information which can be used to make good decisions. An example of this type of

reporting is a story on how a lack of consistent government oversight of community storm sirens could degrade public safety when severe weather threatens. Another example might be reporting on the subject of climate change and global warming. As noted earlier, the local television weathercaster is often viewed as the logical member of the newsroom to report on matters scientific, including environmental ones. A recent survey of television weathercasters (Maibach, Wilson, & Witte, 2010) found that many say they are the de facto science reporters in the newsroom. Additionally, research indicates that the media play an important role in the construction of environmental issues and problems (Boykoff & Boykoff, 2004; Schoenfeld, Meier, & Griffin, 1979; Spector & Kitsuse, 1977). This offers the television weathercaster the opportunity to provide information that can be environmentally beneficial to society. For example, reporting accurate, useful information about global warming and climate change -- e.g. how use of air conditioners emits harmful chemicals into the atmosphere -- can educate audiences on how they can alter habits to be more friendly to the environment. Reporting on government policy regarding climate change and global warming can educate society about the costs and benefits resulting from the decisions made by their leaders.

Duties of Non-Maleficence

Simply put, the duties of non-maleficence constrain an individual to act in a way that causes no harm to another. Ross (1930) draws a sharp distinction between *non-maleficence* and *beneficence*, going beyond simply calling the former the opposite of the latter, saying, "It seems to me clear that non-maleficence is apprehended as a duty distinct from that of beneficence, and as a duty of more stringent character. It appears to me that the duty of non-maleficence is as *prima-facie* more binding" (pp. 21-22). The

privileging of non-maleficence over beneficence, Ross noted, is why killing one to save another or robbing one to give to another is morally wrong.

As noted earlier, members of the community have reason to expect a particular level of performance from the television station which serves their designated market area (DMA) based on explicit promises made by the station. Additionally, it is reasonable for members of the community to have certain expectations of performance by the television weathercaster based on that person's professional affiliation(s) and identification as an "expert." It is reasonable to assume that these expectations of performance may lead to a community dependence on the weathercaster to "be there" when threatening weather is occurring or is imminent. Early warnings have been cited as instrumental in saving lives in recent catastrophic tornadoes, such as occurred in Greensburg, Kansas (2007), Oklahoma City, Oklahoma (1999), and Joplin, Missouri (2011) (Simmons & Suter, 2005). For the television weathercaster, there is an obligation to, as much as possible, be disseminating accurate, useful information when weather is threatening to harm life and/or property. Negligence on the part of the weathercaster -- for example to not report a tornado warning -- could lead to harm, and is, therefore, a violation of Ross' duties of non-maleficence.

Duties of Justice

Ross (1930) defined the duties of justice as resting on "the fact or possibility of a distribution of pleasure or happiness (or of the means thereto) which is not in accordance with the merit of the persons concerned; in such cases there arises a duty to upset or prevent such a distribution" (p. 21). Put simply, the duties of justice compel those who have ability and opportunity to make sure that the distribution of various goods is just.

Ross wrote that not all individuals are deserving of a measure of pleasure, and, conversely, there are those who are not deserving of a measure of pain. "It would seem then that, besides virtue and pleasure, we must recognize, as a third independent good, the apportionment of pleasure and pain to the virtuous and the vicious respectively" (p. 138). It is on this foundation -- that pleasure should be distributed to the virtuous and withheld from the vicious, and that pain should be distributed to the vicious and withheld from the virtuous – that Ross distinguishes the duties of justice from those of fidelity and beneficence.

Applying Ross' duties of justice, an individual who is aware of an injustice is encouraged to act in a way to restore equality. That would be a Right action. Because the journalist has access to powerful, influential media, it may be argued that the duty carries a greater weight for the journalist than for the "common" citizen who does not have such access. For example, in an essay proposing justification for subjectivity in journalistic reporting, Thompson (2010) used the CBS Reports program "*Harvest of Shame*" as an exemplar of television journalists reacting to a perceived obligation to the duties of justice. The program, which aired on Thanksgiving Day in 1960, was originally to be an informational piece about the lives of migrant farm workers in the United States. However, after witnessing firsthand the horrible, inhumane, and hopeless living conditions of the workers, show producer David Lowe and journalist Edward R. Murrow put together a program that CBS Reports Executive Producer Fred Friendly (1968) called "a document of man's exploitation of man that was full of anguish and outrage" (p. 121). Although there is no evidence he realized it, Friendly's defense of the program's perceived imbalance -- specifically, Murrow's impassioned plea for government

intervention to improve the lot of the migrant farm worker -- was an argument for choosing Ross' duties of justice over the duties of fidelity to the journalistic norm of objectivity. In his autobiography, Friendly wrote of the decision, "Though objectivity is part of responsible reporting, all arguments are not equal. The two sides to the migrant workers' plight could not counterbalance each other, and no reporter with a conscience could end such a report without letting the viewer know how he felt" (p. 122).

Reporting on natural disasters may offer the journalist tailor-made opportunities for justice-based reporting in the spirit of the CBS Reports exemplar because, a) as Seeger, Sellnow, & Ulmer (2003) note, in times of crisis, the media fulfill an important role by "monitoring and evaluating the situation" (p. 71); and b) the catastrophic consequences from such events are typically unequally borne by certain segments of society. Many sociologists have noted that, in the wake of a natural disaster, those in the community who are marginalized socially and economically are more likely to suffer greater impacts. For example, Girard & Peacock (1997) found evidence after the devastating Hurricane Andrew that ravaged South Florida in 1992 that homes occupied by minorities sustained greater damage and received less-adequate insurance settlements.[9]

The calamity that was Hurricane Katrina in 2005 created an opportunity for justice-based reporting. As Boeyink & Borden (2010) noted, what happened in the days and weeks after the storm "raised larger issues about social justice in the United States and how the news media address them" (p. 138). The powerful storm slammed ashore on the U.S. Gulf Coast on August 29, the eye of the storm making landfall not far east of New Orleans. The storm surge created by the hurricane caused the levee system

protecting the city to fail, resulting in catastrophic flooding to much of the city. Nearly 2,000 people were killed by the storm and, particularly in New Orleans, many thousands were left homeless. In the days and weeks that followed, media reports began to paint a picture of the inequality of the storm's consequences, "exposing how socioeconomic vulnerabilities and racial discrimination disproportionately weakened impoverished Black American victims' abilities to cope with the disaster" (Taylor-Clark, Viswanath, & Blendon, 2010, p. 221). Birkland & Waterman (2008) noted that much of the post-Katrina news coverage focused on the failure of the federal government to respond to the disaster with adequate aid.

Research indicates that the vast majority of people in the United States were very interested in coverage of Katrina, citing television -- specifically cable news networks (CNN, FOX, CNBC) -- as their primary source of information (Maestas, Atkeson, Croom, & Bryant, 2008). Results of a content analysis of news coverage by CNN and FOX News in the first few days after the hurricane made landfall (Lynch, 2007) indicated that, as the story unfolded, CNN was framing the disaster as "a systematic dysfunction and incompetence on the part of government agencies, which tragically endangered trapped, helpless citizens" (p. 34). Essentially, CNN framed the story as an injustice. In Rossian terms, those deserving of a measure of pleasure were being deprived, or stated conversely, those who were not deserving of pain were receiving it in heaping measures.

To that end, CNN journalist Anderson Cooper was particularly vocal in criticizing the federal government for not responding quickly and adequately to the disaster. Like the reporting by Murrow in *Harvest of Shame*, portions of Cooper's coverage were noticeably impassioned rather than dispassionate (a dispassionate attitude being a tenet of

objective reporting [Ward, 2004]). For example, while interviewing one of Louisiana's two U. S. Senators, Mary Landrieu, on a live broadcast just days after the disaster, Cooper, was visibly irritated by Landrieu's thanking politicians for what she considered to be an appropriate response. He said, "For the last four days, I've been seeing dead bodies in the streets of Mississippi, and to listen to politicians thanking each other and complimenting each other, I got to tell you, there are a lot of people here who are very upset and very angry and very frustrated" (de Moraes, 2005, CO1). Like Friendly, Cooper later said he felt an obligation to go beyond dispassionate detachment in reporting about what he witnessed in the days after Katrina. Cooper (2006) wrote, "I realize I've been dehumanizing the dead, calling them 'corpses' or 'bodies.' I should be ashamed of myself. They're our neighbors. They're our countrymen. They're people and they deserve better care. America should see the conditions these bodies have been left out in"(sic) (p. 194).

Duties of Self Improvement

Ross (1930) wrote that the duties of self-improvement "rest on the fact that we can improve our own condition in respect of virtue or of intelligence" (p. 21), intelligence referring to *knowledge,* one of four elements that Ross calls intrinsically good (pleasure and the allocation of pleasure to the virtuous are the other two). This category of duties is largely founded on an individual's own sense of responsibility; Hodges (1986) called them "self-imposed," springing from a personal "sense of excellent performance," a commitment to "highest standards…for the sake of principle and in service to others" (p. 20). Unlike the other duties examined in this essay, which are founded primarily on obligations toward others, duties of self-improvement are founded on an individual's

value system. As Elliott (1986) wrote, "The basic responsibility to self -- what is important for autonomous moral agency – is an individual's ability to identify, express, and follow through on his or her convictions" (p. 42). The convictions, of course, must be consistent with his or her responsibilities to others.

Finally, television weathercasters must keep promises that they have made to themselves and must act in ways consistent with their personal value systems. Elliott (1986) wrote, "The basic responsibility to self is an individual's ability to identify, express, and follow through on his or her convictions" (p. 42). Journalists need not act strictly as members of the media at large or specifically as agents of news organizations. They are autonomous moral agents, responsible for their individual actions.

For the television weathercaster as scientist, a manifestation of the duties of self-improvement would be staying abreast of scientific and technical knowledge. As noted earlier, the consideration of the television weathercaster as station scientist, or at least as the person to turn to for expertise in matters scientific/environmental, distinguishes him/her as a *priest*, "demonstrating a specialized knowledge and expertise" (Meister, 2001, p. 417). Meteorology -- and its close relative, climatology -- are dynamic subjects. Researchers are often making new discoveries that can lead to better forecasting; for example, how certain phenomena in the atmosphere (such as La Nina, El Nino, North Atlantic Oscillation) might affect seasonal weather; how particular environmental conditions in the path of strong thunderstorms might be conducive to tornadic activity; and how particular radar signatures can indicate the presence or likelihood of large hail. Additionally, updates and upgrades to graphical display technology are frequently made available to improve the presentation made to viewers, making the information more

visually stimulating and easier to understand. For the television weathercaster, making an effort to improve one's intelligence (knowledge) by keeping up with the latest developments in science and technology is to be true to Ross' duties of self-improvement. Conversely, to neglect to do such would be a violation.

Summary and Research Questions

This chapter distinguished this study as normative, rather than descriptive -- that is to say, it is intended to establish how things should be, not necessarily how they are. Following a discussion of two major approaches to normative ethics, *consequentialism* and *deontology,* it was determined that a deontological approach will be applied -- specifically, a notion of deontology espoused by 20th century philosopher W. D. Ross (1930) that establishes a list of *duties* to which we are all obliged. A discussion of moral pluralism -- the concept that there may be more than one irreconcilable moral principle to be considered in an ethical dilemma and the attendant notion of intuition-as-discernment followed to establish the appropriateness of Ross' theory for articulating the duties of weathercasters and providing guidance in situations in which they conflict.

Research Questions

In light of the preceding discussion, the following research questions are proposed:

- *RQ1: What are the principal kinds of duty conflicts that can contribute to ethical ambivalence for weathercasters as part-journalists and part-scientists?*
- *RQ2: How should weathercasters deliberate about these duty conflicts in specific situations to determine their duty proper?*

- *RQ3: What guidelines can be recommended to aid weathercasters in future deliberations about such duty conflicts?*

In the next chapter, I will demonstrate how fulfilling the duties inherent in the various dimensions of the television weathercaster role, as part-journalist, part-scientist, might pose conflicts between Ross' *prima-facie* duties. Specifically, I will analyze cases involving reporting on the controversial topic of climate change to illustrate a situation with the potential for causing *ethical ambivalence* in weathercasting. I selected this topic for several reasons, among them: It presents the opportunity to study a real (versus hypothetical) situation; it poses distinct conflicts between two or more of Ross' *prima-facie* duties; and the tangible nature of the reporting decisions that must be made regarding this topic should facilitate the application of Ross' variable-weight theory. The outcome of the analysis will be a set of possible guidelines for deliberating well about a weathercaster's *duty proper* in this, and similar, situations.

CHAPTER IV

ETHICAL ANALYSIS

In this chapter, I explain how the role of the television weathercaster -- as part-journalist, part-scientist -- may present opportunities for conflicts between W.D. Ross' (1930) *prima-facie* duties when reporting on global climate change. This topic has become quite controversial and politicized over the past two decades, leading many journalists to produce a "failed discursive translation (of facts) resulting from an accumulation of tactical media responses and practices guided by widely accepted journalistic norms" (Boykoff & Boykoff, 2004, p. 125).

The chapter begins with a brief background on the subject of climate change, examining the science, identifying where and why it has become so controversial, and explaining why, for journalists, news coverage is seemingly so fraught with conflict and ethical tension. Next, news coverage of climate change, particularly as it might be reflected in national reporting on extraordinary meteorological or climatological[1] events will be analyzed. Following that will be a brief examination of news coverage at the local level, specifically, how a local television newsroom reported on an extraordinary, traumatic meteorological event that profoundly affected the local population.

Next, I will identify a second, more recent extraordinary meteorological event, which again profoundly affected the local population. Four hypothetical treatments of the event by a television weathercaster -- "coverage scenarios" -- will be identified, including the rationale for each. Each of the scenarios will then be analyzed using Ross' (1930) theory of variable-weight duties to resolve potential conflict(s) which may be arise. Specifically, the analysis will utilize Meyers' (2011) scheme for weighing Ross'

duties, which he described as a multi-step method "for making concrete ethical decisions as they could be applied to journalism" (p. 316).

For each of the five duties, the analysis process will include identifying the relevant duties which are at stake, distinguishing the conflicting duties, weighing the conflicting duties using Meyers' (2011) scheme, then determining which duty should be privileged – identifying the *duty proper*. The results of this analysis will then be applied to the purpose of answering each of the Research Questions posed earlier.

Global Climate Change

For the purpose of this analysis, the definition of *climate change* is taken from the Fourth Assessment Report of the Intergovernmental Panel on Climate Change (IPCC)[10]: "*Climate change* in IPCC usage refers to any change in climate over time, whether due to natural variability or as a result of human activity" (IPCC, 2007, p.2). The IPCC report concludes that increases in average air and ocean temperatures from around the planet, combined with the widespread melting of snow and ice and the rising global average sea level, is sufficient evidence to consider the warming of the Earth's climate "unequivocal."

Recent examples of climate extremes in the United States buttress the report's contention that our atmosphere is warming. For example, in July 2012, the National Climatic Data Center (NCDC), a branch of the United States government's National Oceanic and Atmospheric Administration (NOAA), reported that the twelve-month period ending June 30, 2012, was the warmest on record in the forty-eight contiguous states. The second warmest twelve-month period ended in May 2012, and the third warmest was the period ending in April 2012. The report also notes that the average

temperature for the forty-eight contiguous states for the first six months of 2012 was the warmest on record. Additionally, there were one hundred seventy-three new all-time record-high temperatures tied or broken in the month of June alone.

The IPCC (2007) report attributes climate change to man-made activities, specifically the burning of fossil fuels, which add carbon dioxide to the atmosphere: "Most of the observed increase in globally averaged temperatures since the mid-20th Century is *very likely* (emphasis in the original) due to the observed increase in anthropogenic greenhouse gas concentrations" (p. 10). The report cites among the numerous, long-term observations of climate change, "aspects of extreme weather including droughts, heavy precipitation, heat waves, and the intensity of tropical cyclones" (p. 8)[11].

Although the IPCC is widely recognized as a collection of elite climate scientists from around the globe, and its findings have come to represent consensus on the science of climate change, support for the Committee among scientists and policy makers is not unanimous; the Committee's findings and the notion of human-induced climate change is not without controversy. Peiser (2007) notes "serious reservations about the way the IPCC works and how it produces its conclusions" (p. i). Indeed, an entire issue of the scientific journal *Energy and the Environment* (2007) was dedicated to skepticism of the IPCC and its conclusions, with article titles including terms such as "unwarranted trust," "biased policy advice," and "bias and concealment."

At the heart of the IPCC/climate change controversy lies differences in opinion on a) whether our planet is reacting adversely (and will continue to do so) to tons of harmful pollutants that have been spewed into the air for centuries, and b) whether the real or

potential cost of harm to the environment (with resulting economic and social consequences) is worth the economic expense of mitigation/prevention. Essentially, the disagreements can be divided into two areas: those belonging to the realm of science, and those belonging to realm of economics.

Scientific Disagreement

The IPCC (2007) report paints a frightening picture of what our planet might be like at the end of the 21st Century if levels of the most important anthropogenic greenhouse gases continue to increase at 20th Century rates: The global temperature will increase by as much as 6°C (11°F), late-summer sea ice in the Arctic will disappear almost entirely, sea levels may rise worldwide by as much as a foot and a half, and extremes in weather such as heat waves, flooding rains, and more powerful, farther north-ranging tropical storms, will become more intense and more common. Numerous research studies have concluded that such traumatic events would likely produce a pronounced, negative effect on many societies, as well as a negative impact on global economic stability (Adger, 2003; Adger, Huq, Brown, Conway & Hume, 2003; Stern, 2007; Thomas & Twyman, 2005).

Predictions of dire environmental consequences resulting from unchecked (and even checked) climate change come from many, varied sources other than the IPCC. For example, a recent study by Dai (2011) concluded that climate change will pose a growing threat of severe and prolonged drought in heavily populated areas, including the United States, over the next half-century. Trenberth, Overpeck, and Solomon (2004) conclude that climate change will result in a greater number of extreme weather events such as drought, heat waves, and floods in the coming decades. In a 2010 series of special

reports, the National Academies of Science (National Research Council) called for quick action to curb emissions of greenhouse gases, saying, "The compelling case that climate change is occurring and is caused in large part by human activities is based on a strong, credible body of evidence." The list of scientists/studies reaching the same conclusion is long. A recent, extensive survey of more than 1,000 climate researchers found that 97% of those who are most actively publishing in the field support the notion of anthropogenic climate change as outlined by the IPCC (Anderegg, Prall, Harold, & Schneider, 2010).

However, there is not unanimity in the scientific community on the subject of climate change, its source(s), and/or its ramifications for our environment. A number of scientists – albeit small – contend that the increased temperature of the Earth's atmosphere is part of the planet's natural cycle, and/or that proof of anthropogenic forcing is unverifiable. Among these scientists' contentions, for example, is that it is a mistake to assume that increasing global temperatures *must* be the result of anthropogenic forcing simply because there is no other known viable explanation (Lindzen, 2007). Additionally, some dissenting scientists believe that climate models used to explain global warming are inaccurate, for example, because they inadequately measure the mitigating effect of increased planetary cooling forces (e.g. water vapor, clouds, precipitation) which would be caused by increased heating (Idso, 1998). Lindzen, Chou, and Hou (2001) hypothesized that a decrease in upper-tropospheric cloud cover in the tropical ocean zones resulting from warmer sea surface temperatures might allow for more long-wave radiation to escape the Earth's atmosphere, exiting to space, counterbalancing the effect of increased CO_2 levels on global warming; this is a force not considered in most climate change models.[12]

Economic Disagreement

Just as there are forecasts coming from the scientific community of dire environmental consequences resulting from global climate change, so are there predictions of serious economic ramifications coming from economists. For example, after analyzing the potential economic effects of climate change on the global economy, Stern (2007) concludes that climate change presents a "market failure on the greatest scale the world has seen" (p. 27), with the world economy being devalued by as much as 5 to 20% by the end of this century. Munasinghe and Swart (2005) contend that, as climate change negatively affects critical global ecosystems, "serious and possibly irreversible impacts are projected for a broad set of socio-economic scenarios" (p. 49), exacerbating the divide between regions in the world that have access to critical resources and can successfully make changes and those that do not and cannot.

In a like manner to the dissension noted earlier in the scientific community, there is disagreement about potential global economic consequences presented by climate change. Just as dire predictions of economic gloom are predicated to some degree (if not entirely) on the assumption of the IPCC (2007) report on climate change and its environmental impact(s), economists disagreeing with such pronouncements seem to have a healthy skepticism of the report (and other scientific research which present similar or supporting conclusions). For example, Dawson (2008), who refers to projections of negative economic consequences resulting from climate change as "economic science fiction," argues that conclusions made by the IPCC should be discounted, as the panel "is a near-monopoly producer of climate science, much of which is politicized" (p. 42). Another example of economic dissent comes in the form of

disagreement over assumptions that the IPCC (2007) report makes regarding the relationship between exchange rates, Gross Domestic Product (GDP) and the environmental consequences of climate change, as well as calculating how economies might be compromised if outcomes identified by the IPCC in its various scenarios come to pass (Henderson, 2005; 2007). A simple perusal of such reports makes it easy to see that the issues are quite complex, with more than enough technical data to make one's eyes glaze over.

The debate about climate change is made salient substantially due to implications for government policy. As McCright and Dunlap (2011) note, climate change is more than just the most challenging global environmental issue; it also presents the greatest regulatory implications. Incumbent with accepting the assessments and forecasts of the IPCC is the notion that some kind of corrective measures should be implemented; measures which would likely have economic consequences. Peiser (2007) writes, "The reality of the IPCC consensus should not be underestimated. Its political weight and growing demands for drastic economic intervention is posing a serious political predicament for many governments, most of which find themselves unable to control let alone reduce rising CO2 emissions" (p. ii). More specifically, Nisbet (2009) notes, "Policies to address climate change will bear directly on the future of Americans, impacting their pocketbooks, lifestyles, and local communities" (p. 14).

An example of the policy conflict between environmentalism and economic health is found in the battle over automobile emissions and fuel efficiency standards in the United States. Transportation in the United States accounts for more than a quarter of all of the nation's greenhouse gas emissions; passenger cars and light trucks are

responsible for more than half of that (Greene & Plotkin, 2011). In response to the perceived threat to the environment from increasing levels of carbon dioxide in the atmosphere coming from automobiles, the Obama administration has twice in the last three years proposed toughening fuel mileage standards (known as CAFÉ, which stands for Corporate Average Fuel Economy) for cars and light trucks manufactured in the United States (Broder, 2009; Del-Colle, 2011). . The tougher standards mandate greater fuel efficiency, which also reduces the amount of pollution coming from each vehicle (also referred to as the "carbon footprint"). The moves were applauded by those who privilege environmental protection over economic strength.

In contrast, the automobile industry has consistently objected to tougher standards, saying implementation adds a substantial amount to the cost of a new car, discouraging consumers from buying, and causing sales of automobiles in the United States to decline (Del-Colle, 2011). Indeed, an analysis of the potential economic outcomes of increasing CAFÉ standards (as compared with raising gasoline taxes) concluded that the cost to both producers (resulting from lower profit margin per automobile sold) and consumers (resulting from higher prices) would total $3.6 billion dollars annually, for a reduction in total gasoline consumption of ten percent (Austin & Dinan, 2005).

The economic downturn, which began in 2008 and threatened the very existence of the U.S. auto industry by mid-2009, helped frame manufacturers' (and their supporters') arguments in life-and-death terms. For example, in an op-ed column appearing in the *Wall Street Journal* titled "Fuel Standards are Killing GM," Alan Reynolds (2009), a senior fellow at the conservative think tank Cato Institute, wrote

"General Motors can survive bankruptcy far more easily than it can survive President Obama's ambitious fuel economy standards." Among those who have argued against the standards is Democratic United States Congressman John Dingel, a powerful politician who has the distinction of being the longest-serving representative in the history of the Congress, and whose district includes Detroit. He has said that they unfairly penalize U.S. automakers, putting them at a competitive disadvantage to their European and Asian counterparts (Schwartz, 2008). The CEO of Ford Motor Company, Alan Mulally, called the CAFÉ standards a "market distorting policy," forcing American car manufacturers to produce small, fuel-efficient cars that the consumer will not buy to offset the manufacturing of lower-mileage, larger cars and sport utility vehicles which are more profitable and in demand (McCracken & White, 2007).

Economist Joan Martinez Alier (2009), a founding member and past-President of the International Society for Ecological Economics, wrote, "Economic growth is not compatible with environmental sustainability" (p. 1099), largely because economic growth, even with today's modern technologies, requires an ever-increasing demand for exhaustible natural resources and carbon sinks. The conflict between environment and economy, between preserving our planet and preserving our lifestyle(s), has contributed considerably to the politicization of the climate change issue in the United States. Much scholarship has been directed at how the politicization has divided elites and organizations into two distinct camps: one focused on the negative environmental consequences resulting from industrial capitalism, the other promoting unbridled industry for a strong economy while debunking the claims of negative environmental consequences.[13]

Backlash for Journalists

Nisbet (2009) notes two distinctly different *frames* – ways of telling stories and explaining issues to make them more understandable to an audience – are offered by opinion leaders (e.g., political leaders, commentators, scientists) who *believe* climate change is a critical issue with serious implications for our environment, and those who *disbelieve.* These frames reinforce a perceptual divide between the two sides. *Believers* rely on "depictions of specific climate impacts, including hurricane devastation, polar bears perched precariously on shrinking ice floes, scorched, drought-stricken earth, blazing wild fires or famous cities or landmarks under water due to future sea-level rise" (p. 19). *Disbelievers* "hew closely to their decade-old playbook for downplaying the urgency of climate change, which includes questioning whether human activities drive climate change while also arguing that any action to curb it will lead to dire economic consequences" (p. 18).

A recent examination of a decade's worth of polling in the United States on the subject of climate change by McCright and Dunlap (2011) found that, like elites and non-governmental organizations, the attitudes and opinions of individual citizens are polarized, and becoming increasingly so, substantially following political party lines. For example, those claiming to be Democrat/liberal were more likely to share the beliefs and concerns of the scientific majority about the threats climate change poses to our environment, while those claiming to be Republican/conservative evidence greater skepticism toward scientific findings and less concern about possible climate change consequences. Studies by Zehr (2000), and Boykoff and Boykoff (2004, 2008) suggest that, rather than helping the public discern and decide fact from fiction in the climate

change debate, the news media in the United States have contributed to what Nisbet (2009) refers to as "two Americas of climate perceptions" (p. 14).

It is into this schismatical minefield that the journalist treads when he/she attempts reporting on the subject of climate change, and it is the distinct divide in attitude, perception, and opinion that renders him/her vulnerable to accusations of bias. This may be particularly true for the television weathercaster, because he/she is likely the only member of the newsroom with a scientific background and is recognized as the "station scientist" to whom the newsroom might turn for analysis and context.[14] The notion of producing an analysis piece or adding context to the story of a weather event, which might include statements perceived to be favorable or unfavorable toward the legitimacy and seriousness of climate change, is fraught with conflict and tension.

On the one hand, to present the fact that there is overwhelming scientific consensus that climate change is a serious, immediate threat, and is very likely responsible for changes to our environment and recent extreme weather events, is to be accused of preparing a report with an "alarmist slant," and to be "outed" as a member of the "Left, media hype" (Ciandella, 2012). Those who report the findings of the IPCC without skepticism might be accused of being lazy, gullible "following the intellectual fashion of the day" by interest groups aligned with climate change deniers, such as Accuracy in Media (Isaac, 2012).

On the other hand, television meteorologists who are either skeptical or outright deniers of climate change may also be targeted for "outing." In 2012, the online advocacy group "Forecast the Facts" began "tracking the views of meteorologists through their on-air statements, blog posts, social media activity, public appearances, interviews,

and interactions with viewers" (http://www.forecastthefacts.org/weathercaster_watch/), the purpose being to publicly identify those who do not believe or are skeptical of human-induced climate change, and to "hold them accountable." The group has targeted several on-air weathercasters, for example, the chief meteorologist at the local FOX affiliate in Hartford, Connecticut (Amarante, 2012).

Within the scientific meteorological community, giving credence to the notion that there is legitimate disagreement in the scientific community – however small the number of contrarian thinkers – may result in having one's meteorological credentials questioned. For example, in 2006, climatologist Heidi Cullen, a member of the Board of Directors of the American Meteorological Society (AMS) and host of a climate-related program on "The Weather Channel," blogged that television meteorologists who have earned the AMS' coveted "Broadcast Seal of Approval" should have their credential revoked for reporting anything less than scientific consensus on the subject (Cullen, 2006). With pressure to frame the climate change story coming from all sides of the debate, it is easy to imagine how reporting on the topic might put a reporter in a precarious position – even more so the television weathercaster, because of the authority attributed to him/her on account of his/her scientific expertise.

Concerning the amount of news coverage given to the subject of climate change, much of the academic research (e.g., Boykoff & Boykoff, 2004, Boykoff, 2007, Wilson, 2000) seems to be concentrated more on the content and effects of coverage as opposed to the number of stories generated. However, particularly in the last five years, there have been several efforts to quantify news coverage. For example, a recent study by the Pew Research Center's Project for Excellence in Journalism (Sartar & Page, 2009) found

that, while the number of climate change stories increased in United States newspapers between 2006 and 2009, the number of stories dedicated to the topic on network television newscasts decreased. Only 1.5% of network news coverage in 2009 was devoted to environmental issues, which was less than that given to celebrities and sports. Other studies have found that coverage of climate change in both print and television media has declined over the past two years (Fischer, 2012).

A recent example of climate change coverage on television is provided by the cable network The Weather Channel. Between 2006 and 2009, the network produced and aired a series of programs about the environment, weather, and climate (www.weather.com/forecastearth). The series was first titled "The Climate Code," which was later changed to "Forecast Earth." The first show aired in October 2006, hosted by Dr. Heidi Cullen, a climatologist employed by the Weather Channel (Aspan, 2007). The program, and particularly its host, became lightning rods for the climate change debate. Public interest groups, commentators and politicians opposed to the notion of scientific consensus and the serious nature of climate change were quite critical. For example, The Heartland Institute, a self-described "think tank" that questions the reality and import of climate change, referred to "The Climate Code" as the Weather Channel's "alarmist weekly program" (Dunn, 2007). Dr. Cullen was even singled out for criticism by the then-Republican-controlled U.S. Senate Committee on Environment and Public Works (Morano, 2007). In what was termed a budgetary matter, the entire Weather Channel environmental reporting unit was fired by then-new owner NBC Universal in late 2008, ending the program and its effort to focus on environmental, weather, and climate issues (Freedman, 2008).

On a local level, there is a dearth of information regarding the number of stories and/or content contained in climate change reporting. However, a recent study by the Radio Television Digital News Association (RTNDA) and George Mason University's Center for Climate Change Communication (2010) concluded that the subject is "covered relatively infrequently" (Maibach, Wilson & Witte, 2010). This thesis author's personal experience as the primary meteorologist for a local television news organization for the last seventeen years (WWMT-TV, the CBS affiliate in the Grand Rapids-Kalamazoo, Michigan, television market) is in line with the RTNDA/George Mason University study's assessment. During that time frame, there have been fewer than five reports dedicated to the climate change debate.

Additionally, anecdotal experience with coverage of extraordinary weather events has not included any attempt at analysis or context. For example, during a period of extreme heat in July 1995[5], where for four consecutive days in Kalamazoo, Michigan, the air temperature was at or above 100°, and for two days, the Heat Index – a measure of the sensible effect of the combination of air temperature and dew point temperature – rose above 120°, there were seventeen heat-related stories on WWMT newscasts. None of the stories contained analysis or context. The scenarios to be analyzed are based on coverage of a more recent extreme weather event. Although occurring more than a decade later, the station's pattern of coverage remained substantially the same in regard to the question, "Why is this happening?"

Scenarios for Analysis

During the period of March 14-22, 2012, much of the nation, specifically the southwestern quadrant of the Lower Peninsula of Michigan, experienced unprecedented

warmth. For example, on March 21, the maximum temperature in Grand Rapids reached 87°, smashing the previous record maximum for the month by six degrees. Kalamazoo set a record high on nine consecutive days, itself a record for number of consecutive days of record temperatures.

The warmth wasn't confined to Michigan's Lower Peninsula, nor was it confined to March. According to the National Climatic Data Center (NCDC), March was the warmest on record in twenty-five of the forty-eight contiguous United States; it was among the top ten warmest in all but eight of the forty-eight contiguous states; it was the overall warmest on record for the forty-eight contiguous states as a whole. Additionally, for the period January through March, temperatures were the warmest on record in Michigan, and twenty-four other contiguous states. The period ranked in the top ten warmest in all but seven contiguous states.

The unprecedented warmth created an agricultural nightmare for Michigan's fruit farmers, who are largely concentrated in the westernmost region of the Lower Peninsula. The warmth caused the growing season to begin several weeks ahead of schedule. Fruit trees and certain vegetable crops began to flower, leaving them vulnerable to frost and freezing conditions which were inevitable between the end of March and the middle of May, when freezing temperatures become more unlikely than likely.

News reports from WWMT-TV documented the threat to local agriculture by explaining how the early growing season had created a potential problem for the early buds, and by showing nervous farmers waiting and watching the weather. Following a few nights with subfreezing temperatures, WWMT news reports documented how the situation might affect area farmers, noting a larger impact on the area's economy, as well

as the potential impact on consumers. A few weeks later, as agricultural experts and area fruit farmers began to assess crop damage, WWMT reports documented the extent of the problem and its potential economic ramifications, notably financial losses to farmers and lost farm jobs.

An example of how the anomalous weather event was covered by WWMT is provided below. This is the script of a story that aired on the station's six p.m. newscast on May 14, 2012:

(Anchor)

New at six tonight, it has been an ongoing fight for West Michigan fruit growers. They've been trying to save their crops, and their livelihood, after a record warm March triggered an early bloom. Now, it looks like the situation may be even worse than they originally thought; especially for apple growers. Newschannel 3's Louren Sprenger tells us how they're hoping to survive the season.(Reporter on tape)

After record setting temperatures earlier this spring, followed by hard freezes, farmers are now tallying the damage done to their fruit crops. Most here in West Michigan say this is the worst season they have ever seen. Now, they're hoping for some help from the government.
(Joe Klein, fruit grower from Sparta)

We were looking at a small tree that should have had 100 apples on it, a really nice crop coming in, and we were able to find one or two on it, that is the exception, not the rule.
(Reporter)

Fruit growers like Joe Klein anticipated a poor crop this season, but never imagined it would come to this.
(Joe Klein)

There just isn't any viable apples out there.
(Reporter)

With news that many won't have a harvest this year, West Michigan farmers are voicing their concerns to local lawmakers, asking for help to keep from going broke.
(Joe Klein)

No matter how bad we think it's going to be financially, we know it's going to be worse.

(Reporter)

The group says many are still waiting for insurance money from 2010, when weather wiped out half of their harvest. Although last year was good, this year will put them in the red, so they're hoping the Governor will grant them a bridge.

(Joe Klein)

So many times we've been looked at as if we are always looking for a hand out, that we are always crying and whining, but this is not a crying, whining situation.
Reporter)

And farmers aren't in it alone. From jobs to produce prices, many will feel the pinch.
(Congressman Bill Huizenga, local representative)

This production of the fruit is only one step. It then goes to processors and handlers and those who run the trucking lines that move the produce. It's going to effect a lot of people.
(Reporter)

Pickers that (sic) come in from out of state in the summer months won't be here this season. Klein hires about 40 workers during the harvest. Now, he's forced to lay off.
(Joe Klein)

We've never been through this before, so it's unchartered territory, but I know the first thing we're going to do is cut back on expenses.
(Reporter)

Apple growers in Sparta say they normally produce 15 to 16 thousand bins of fruit. This year, they'll be lucky if they have 100.
(Congressman Huizenga)

We know that agriculture is the first or second largest industry here in Michigan. Fruit here in West Michigan is a big part of our economy and we have to make sure we are paying attention to it.
(Reporter)

Now, they're waiting to hear on state and federal money, paired with insurance claims to help them survive the lost harvest.

(Joe Klein)

We truly believe next year has to be better because it can't be any worse.

(Reporter)

While fruit farmers here in West Michigan won't see much of a crop this year, those in western states are seeing record-setting numbers when it comes to apples. So next year, farmers in Michigan won't only have to worry about finances, but also winning back some lost business. Reporting in Sparta, Louren Sprenger, Newschannel 3.

A search of the WWMT news archives shows that, between late March and mid-May 2012, this was among four stories prepared and presented related to the anomalous weather event and its potential/real effects on local agriculture. While each of the stories noted the effects of the anomalous weather event, none of the stories addressed the weather event itself, e.g. the cause of the event, whether similar anomalous weather events can be expected, and/or how similar anomalous events in the future might impact our society. In other words, the WWMT news coverage treated the anomalous event as a stand-alone, one-time phenomenon; there was no attempt to contextualize the event, for example, to consider whether it might be related to climate change. Being recognized as "station scientist" (as previously noted), and with expertise specifically in the area of atmospheric science, the anomalous weather event seems tailor-made for contextualizing – examining the "bigger picture" -- by a member of the news department's meteorological staff (weathercaster). That didn't happen.[15] For the purpose of this analysis, consideration will be given to four possible scenarios in which the weathercaster might have contributed to the story.

The scenarios are organized with respect to Lessl's (1989) dichotomy of communication, presented on a scale from bardic to priestly (see Figure 1). Presenting and analyzing the scenarios will reveal that communication that is purely bardic or purely priestly, falling close to one extreme or the other on the continuum, results in less ethical ambivalence than communication that is closer to the middle of the continuum. The closer the communication is to the middle of the continuum, denoting a greater mix

of the bardic and the priestly, the greater the opportunity for role conflict/tension, and, therefore, ethical ambivalence. In particular, the weathercaster is apt to struggle with journalistic role expectations based on a professional commitment to objective reporting, which favors dispassionate description of events without offering analysis, context, or information that could be considered biased.

Figure. 1. Continuum of Communication from Bardic to Priestly

Continuum of Communication

•----------|----------•

bardic priestly

Scenario 1: No Analysis

In this scenario, the weathercaster prepares a factual television news story on the anomalous weather event, dealing strictly with the event and possible ramifications/consequences. He/she would have flexibility to utilize facts and sources of information to prepare the story as he/she sees fit. However there is no context or analysis offered as part of the story. The story would appear very similar to the script that appears in the case study above. The role of the weathercaster in this scenario is strictly bardic; the information supplied and presented is exclusively from sources. The weathercaster (as reporter) is a bard, a storyteller in every sense of the word. There is no element of priestly communication. On the communication continuum shown in Figure 1, this example of communication would be placed at the far left side. As noted earlier, scenarios that are closer to one end of the communication continuum exhibit fewer

opportunities for conflict/tension than those that are closer to the middle, and so it is with scenario number 1, in which the weathercaster is strictly a bard. There is little opportunity for conflict/tension.

Scenario 2: Reporting Plus Analysis

In the second scenario, the weathercaster delivers the story of the anomalous weather event with analysis and context, drawing from his/her scientific expertise. This setting is more expansive for the weathercaster with respect to bardic and priestly communication as he/she might report the story by including a contextual layer, addressing whether the event can be related to a larger phenomenon, for example, global climate change. The weathercaster might seek out another expert source on the topic for additional information and supply contextual information himself/herself, acting as both bard (storyteller) and priest (expert, station scientist).

For example, in the original script, the reporter closes the story with a paragraph about farmer concerns over next year's sales. Scenario 2 has the weathercaster (as reporter) closing with the following:

> Many members of the scientific community believe that the unprecedented warm spell in March is a sign of things to come. For example, the Michigan State Climatologist says that extreme weather events are becoming more common with each year that passes, and that global climate change is to blame. Based on my knowledge of climate change science and what I've observed in West Michigan weather over the past twenty years, I agree. And I think that as a result, we're going to see more and more strange weather here in West Michigan.

By adding analysis, context and expert-based opinion to the story, the communication is brought toward the middle of the continuum shown in Figure 1; the

communication is no longer strictly bardic (as in the first scenario); now it has an element of the priestly voice as well. Combining both voices in this setting introduces opportunity for ethical tension, as injecting one's personal knowledge (in this case, in the form of expertise) conflicts with earlier noted tenets of objectivity, specifically the dispassionate observation and reporting of facts.

Scenario 3: Station-sponsored Weblog

In a third scenario, the weathercaster delivers the story of the anomalous weather event through a different, but still work-related, vehicle, e.g. a weblog. Practically all television news organizations have websites. Typically, the weathercaster has opportunity on this platform to write about topics of interest. Additionally, many weathercasters have station-related blogs, where they are encouraged to share their thoughts about topical matters – and in some cases, the sharing of personal information, thoughts and feelings.

Regarding the anomalous weather event of March 2012, the weathercaster might write more expansively here, feeling freer to incorporate analysis on a website or in a blog post than in a story prepared for the newscast. For example:

> When considering the unprecedented warmth we had here in West Michigan in March, it's hard not to look at the bigger picture. Consider: March was the warmest month on record in the 48 contiguous United States; the period of January through March was also a record warm period. 45 of 48 states had record warm winter seasons; more than 15,000 new record high maximum temperatures and new record high minimum temperatures were established. The vast majority of experts in climatology have been saying for years that there's something going on here: The Earth is warming,

> and it's the result of what we've been putting in our planet's air, ground, and water over the last three hundred years. From where I sit, the evidence is compelling, and I think it calls for action.

Obviously in this situation, the weathercaster is more freely expressing his/her opinion, putting himself/herself even more at odds with tenets of journalistic objectivity, which not only promote dispassionate observation and reporting, but also require balance, encouraging the presentation of contrasting points of view and/or evidence. However, the opinions expressed by the weathercaster are more substantial than mere feelings and/or conjecture. They are founded on and buttressed by facts: information that is presumably gathered and parsed using his/her expertise as a meteorologist, a scientist, a priest. On the communication continuum, the blog post would be to the right of the first two examples (more priestly); however, because the blog is by its nature also bardic, i.e., not strictly a platform for reporting scientific information -- it would be placed to the left of the priestly extreme, toward the middle of the continuum.

A similar example -- from personal experience – might be a column appearing in a local newspaper. For several years, I wrote a daily, weather-related column for a newspaper that served a city in my employer's coverage area. There was little restriction on what I could write, so long as the topic was weather-related and was of interest to the newspaper's audience. The banner at the top of the column identified me as the Chief Meteorologist at WWMT-TV, which not only established expertise and raison d'etre for its appearance, but also identified me as a part of the WWMT-TV news team. My column was given space in the newspaper not strictly based on my scientific credentials (there might be other meteorologists and/or climatologists in the audience) but also on the

credibility and familiarity resulting from appearing daily on the local television newscasts.

The communication in these columns was a mix of the bardic and the priestly; scientific information was presented in story form, in a way that could be easily understood by the lay reader. As noted earlier, communication that falls closer to the center of the communication continuum presents greater opportunity for conflict/tension than that which falls closer to either end. As the author of the daily column, I was keenly aware of potential conflicts that could result from injecting what I believed to be true, based on scientific understanding and expertise. When a television weathercaster is writing on a station-sponsored website, blog post, or similar venue, while being identified as a member of a news organization, does he/she have the same level of obligation to abide by the tenets of journalistic objectivity as when appearing on the station's newscast? Does he/she have greater latitude to express personal opinion for the purpose of providing analysis or context?

Scenario 4: Moonlighting Expert

In the fourth scenario, the weathercaster delivers information on the anomalous weather event via an independently produced documentary film. The weathercaster produces and reports in a documentary spotlighting the hardships the extreme March warmth created for fruit farmers who, due to their plants and trees budding much earlier than normal, lost entire crops when freezing temperatures in April ruined the fruit. The documentary cites evidence suggesting that the event is indeed part of a bigger picture called Climate Change, features scientists who say that Climate Change is man-made, the result of our dependence on and use of fossil fuels, and that more extreme weather events

are likely. The production concludes with a call to action by the weathercaster himself/herself, saying that if something isn't done soon to reduce the amount of harmful chemicals in our atmosphere, the consequences for future generations will be dire.

Because of the substantial input from science/scientists, the documentary would fall toward the right side (scientist) of the communication continuum. Although the information would feature bardic characteristics (e.g. stories of how the anomalous weather event impacted farmers, their families, and their workers), the content would be fact- and experience based, not given to opinion. Additionally, because the weathercaster would not be working/identified with his/her employer, there would ostensibly be fewer restrictions/obligations (e.g. tenets of objectivity), therefore, less opportunity for conflict/ethical tension.

Strategy for Analysis

As noted earlier in this essay, the eminent philosopher W.D. Ross, whose ethical approach to determining Right action is the foundation for this analysis, was a deontologist, which is to say his philosophy is duty-based, in contrast to philosophers who base such decisions on the consequences of an action. Specifically, Ross (1930) articulated seven *prima-facie* duties; the term *prima-facie* meaning "at first glance." These duties encapsulate an individual's moral obligation to fellow human beings as well as to himself/herself. To restate the duties, they are: *fidelity*, to keep one's promises, those made both explicitly and implicitly; *non-maleficence*, which is to avoid causing harm to another; *reparation*, which compels one to effect repair for harm(s) caused to another; *justice*, giving a measure of pleasure to one(s) who have earned such, and conversely, denying it to those who have by their actions (or lack thereof) are

undeserving; *beneficence*, which addresses one's duty to, when possible, improve the situation of another; *gratitude*, showing appreciation for the actions of others that have brought benefit(s); and *self-improvement*, which is a duty to improve oneself, in character and knowledge. Ross (1930) argued that, after careful consideration of all relevant factors, a *prima-facie* duty may be discerned to be one's *duty proper* in a particular situation under examination.

Ross (1930) acknowledged the uncertainty of deciding among multiple *prima-facie* duties, admitting that to privilege one over another is to take a "moral risk." He wrote, "We come in the long run, after consideration, to think one duty more pressing than the other, but we do not feel certain that it is so" (pp. 30-31). Meyers (2011) noted that this moral uncertainty is a major problem critics have with Ross' theory. In an essay examining the application of Ross' *prima-facie* duties in resolving ethical problems, Meyers (2011) noted, "the affective judgment…alone cannot get us to a justified determination of actual duty. We need a rational process…" (p. 324). Meyers offered such a plan: a multi-step method of decision-making that analyzes and applies the intangible notions of intuitionism (as utilized in Ross' *prima-facie* duties) to real-world problems, recognizing each situation's "factually rich context" (p. 324). Meyers' scheme for weighing Ross' duties will be used as a guide to resolving conflicts that might arise in each of the four scenarios that follow.

Meyers' (2011) process is distilled to a nine-step progression, founded on three meta-rules: All participants must be impartial, must be committed to rational coherence, and must accept that each case is unique and, therefore, dictates its own approach and its

own sequence of steps. For the sake of brevity, the steps are reduced to one or two sentences:

- *Step one* is to approach the situation with an open mind, striving for an unbiased appraisal of the facts;
- *Step two* is to seek and identify all the relevant facts (Meyers wrote that this concept is obvious, yet "this is typically where ethical problems reside and where analyses fail" [p. 325]);
- S*tep three* is to question whether the situation suggests a consistent affective moral judgment which can be rationally articulated, what Meyers calls a "gut feeling" which might be shared by all;
- S*tep four* is to determine which of Ross' *prima-facie* duties are at stake and to what extent; in making this determination, Meyers suggested using the distinction between "perfect" duties which, hearkening to the strict deontological philosophy of Immanuel Kant (1797, 1996) are duties that should never be violated, or for the purpose of practicality, can only be violated in extraordinary situations (and even then, Ross advised it should be done with regret and contrition), and "imperfect" duties, for which the compulsion to act is not as strong and can be more easily founded on situations;
- *Step five* is to evaluate the type of conflict, whether an ethical "dilemma," composed of conflicting duties such that any choice represents a moral harm, or an ethical "crisis," where power structures prevent the implementation of what is the agreed best choice;

- S*tep six* is to rationally work through the various views and arguments, putting aside personal biases and self-interests;
- *Step seven* is to strive for genuine consensus that is consistent with the other steps in the process, and is not driven by the most influential voices in the discussion, for as Meyers wrote, "The value of consensus resides only when it is authentically achieved" (p. 328);
- *Step eight* is to strive to mitigate all associated harms that may result from implementing what is determined to be the ethical best choice; when faced with such a situation, Ross (1930) wrote that one should not feel "shame or repentance, but certainly compunction" for taking such action (p. 28);
- *Step nine* encourages all participants to seek organizational or institutional change that might alter/correct structures that result in recurring ethical problems of a similar nature.

Applying Duties

In order to analyze each of the scenarios with respect to applicable duties, a four-step procedure will be used: First, duties at stake will be identified via a discussion of how each might be applicable; second, highly relevant duties that are conflicting will be identified; third, conflicting duties will be weighed using Meyers' (2011) scheme; fourth, the *duty proper* will be determined.

Meyers (2011) made a few alterations to Ross' *prima-facie* duties. Whereas Ross identified seven duties (fidelity, non-maleficence, beneficence, justice, reparation, gratitude, and self-improvement), Meyers listed eleven, adding the duties of *respect for persons* and *honesty*, and splitting the duties of reparation and justice, making four duties

from the original two. Additionally, Meyers recalled Kant's (1998) distinction between perfect duties and imperfect duties: Perfect duties are negative (e.g. "thou shalt not") and strictly binding; imperfect duties merely *suggest* action and as such are not as binding. Meyers' list of perfect duties includes, *respect for persons, non-maleficence, fidelity, reparation* (due to harms caused intentionally or through gross negligence), and *formal justice.* The list of imperfect duties includes *beneficence, gratitude, reparation* (due to accidental harm, for example caused by carelessness or stupidity), *distributive justice* (distinguished from the perfect duty of formal justice), *honesty,* and *self-improvement.* Meyers (2011) defined the duty of non-maleficence as an obligation to do no harm to another, harm being physical, reputational, psychological, emotional and/or economic in nature. The duty of fidelity rests on a promise made or reasonably implied to another person; promises are not to be broken. The perfect duty of reparation is an obligation to repair damage caused by action(s) that were either intentional or the result of gross negligence. The duty of formal justice refers to an obligation to give to persons what measures of happiness and pleasure have been legitimately earned and to apply "corresponding social structures (laws, civil rights) in an unbiased manner" (p. 327). The duty of respect for persons is an obligation to treat all persons as free beings, respecting the moral autonomy of each individual.

The duty of beneficence rests on one's ability to improve the situation/condition of another. Gratitude is a duty obliging individuals to show appreciation for previous beneficial actions that have been done on their behalf. Reparation, as an imperfect duty, speaks to an obligation to repair harms caused by carelessness or thoughtlessness. Distributive justice speaks to an obligation to promote the sharing of social goods in such

a way as to provide the greatest benefit(s) to the least advantaged. Honesty, as defined by Meyers, obligates an individual to refrain from knowingly and/or intentionally misleading or deceiving another. Self-improvement is a duty that one has to improve himself/herself, particularly morally and intellectually, as Meyers stated, "to develop our character in a manner that would facilitate moral discernment and steadfastness" (p. 328).

For the purpose of this analysis, four adaptations have been made to Meyers' (2011) interpretation of Ross' *prima-facie* duties. First, Meyers' perfect duty of respect for persons (including oneself) is excluded. The duty is not found in Ross' (1930) work establishing *prima-facie* duties. Meyers adds the duty specifically for journalists "to place constraints on reporters not to use others – sources and subjects – as mere tools for personal gain, for example, via unwarranted invasions of privacy" (p. 327). However, it seems reasonable that such a notion could be grounded in one of Ross' original seven duties, e.g. the duty of non-maleficence or the duty of justice. Furthermore, as enunciated by Timmons (1996), the notion of respect for persons is a guiding principle inherent in all of Ross' duties. Reducing the number of relevant duties is a critical element of this analysis. The process is made simpler and cleaner by eliminating what – for this discussion – appears to be a redundancy at the outset.

A second adaptation to Meyers' interpretation is to modify the imperfect duty of beneficence. As stated by Meyers, the duty not only compels an actor to do what is reasonable to improve the situation of others, it adds (specifically for the journalist) a compulsion to "prevent harms" (p. 327). For the purpose of this analysis, the second compulsion is eliminated from the duty as stated. The rationale for making this change is

so that the imperfect duty of beneficence will not be conflated with the perfect duty of non-maleficence, which clearly and strictly binds an actor to "do no harm."

Third, Meyers' imperfect duty of *honesty*, which hinges on an intention to mislead, will instead be considered a perfect duty. Such a designation will bring the duty in line with other perfect duties, which share the trait of being purposefully committed, enlisting a more stringent requirement for action. Additionally, this adaptation is more fitting with Bok's (1989) exacting notion of *lying*, which is predicated on the intention to mislead.

Whereas Meyers proposed that an imperfect duty of honesty include acts of commission as well as omission, I have decided to add an imperfect duty of *truthfulness* to cover actions that might be considered untruthful, but *not* the result of intent to mislead. Untruthful actions under this definition could be ascribed to discretion, oversight, and the like. In line with other imperfect duties, and in contrast to perfect duties, the imperatives associated with the duty of truthfulness would not be as stringent as with *honesty*, allowing for a degree of latitude in observing its demands. For example, in practically every news story, there are constraints that compel the reporter to exclude information. Time/space allotted for presentation and perceived audience interest are two variables which must be considered. Because the reporter does not have an infinite amount of time/space to present the story, he/she must decide what information to include and what to leave out. Every reporter must distill what bits of information are critical to the audience's understanding of the story from the universe of provided information; he/she must decide what information is most relevant and interesting. It might be argued that determining what information to include and exclude from the story alters the "truth"

of the story, and, therefore, renders the reporter vulnerable to an accusation of being untruthful. However, insofar as the reporter is seeking the truth (as urged in the SPJ code of ethics), and is attempting to report what is truthful, he/she is consistent with the spirit embodied in this duty.

With these adaptations, we are left with five perfect duties to consider in reference to the climate-change reporting scenarios (fidelity, non-maleficence, formal justice, reparation [perfect], honesty), and six imperfect duties (beneficence, distributive justice, gratitude, reparation [imperfect], self-improvement, and truthfulness).

Scenario 1: No Analysis

Perfect Duties

Fidelity. Simply stated, the duty of fidelity may be viewed as keeping one's promise(s), made either explicitly or implicitly, to another. For the weathercaster as scientist-journalist, the duty of fidelity includes commitments accepted explicitly and implicitly upon joining the profession. As noted earlier, the norms of journalism and the norms of science substantially constitute obligations they share the admonition to diligently search for what is true and to report all findings honestly and dispassionately, giving fair and balanced treatment, without bias (Ward, 2004). As a result of these recognized commitments, the public and other stakeholders can reasonably expect that those who claim to be journalists and/or scientists report all pertinent facts accurately, fairly, and without bias.

With respect to the first scenario, where the weathercaster is acting as reporter, imparting information, and identified with a news organization, the duty of fidelity can be considered highly relevant. Additionally, from the information provided in scenario 1,

there is no evidence that the weathercaster-reporter violated the normative obligations of his/her position, as listed above. The information provided in the story is, so far as we know, factual, accurate, and fairly reported. Therefore, the perfect duty of fidelity is fulfilled.

Non-maleficence. At first blush, it seems simple to conclude that nothing in the first scenario would create harm to another person; there is nothing in the story as scripted that directly harms anyone. However, it might be argued that the lack of context and analysis, the absence of an effort to identify and/or clarify "the bigger picture," *indirectly* leads to harm. As Myers (2011) noted, when considering non-maleficence, harms might be physical, reputational, psychological, emotional, and/or economic.

As noted earlier in this essay, the informational media is particularly valuable in a democratic society because it ideally provides facts, analysis and opinions that are necessary elements of good, deliberative decision-making within the public sphere. Policies that govern our society result from this process. When pertinent information is withheld from the deliberative process, good decision-making is not as likely to happen. Specific to scenario 1, the exclusion of context and analysis in reporting extraordinary weather events deprives the public of information suggesting there might be a link between such events and climate change, and that climate change may be directly related to environmental policies. The public is left to believe that such occurrences are isolated, stand-alone events that can be attributed to "quirks" of nature, when in fact many climate scientists believe they share a common origin: the warming of our planet (IPCC, 2007). Policies that might address the root of the problem are not enacted. The events continue

to happen with greater frequency, becoming even stronger (as predicted by the IPCC), creating more harms.

Although the exclusion of context and analysis in one story is unlikely to affect public opinion, and therefore the policy-making process, repeated exclusions could certainly have a negative impact over the long term. It appears that such an argument can be made in two actual cases of how extreme weather and the WWMT-TV newsroom reported its effects. As noted earlier, an examination of the numerous local stories produced by WWMT-TV on the extreme heat event of July 1995 (which was particularly dangerous and deadly in nearby Chicago [Klinenberg, 2002]), found that, of 17 stories filed on the subject, none contained analysis or context; all reported the event as though it were an anomalous occurrence. Likewise, the record warmth of March 2012 and subsequent freezes in the following month decimated fruit crops in western Lower Michigan. Fruit farmers, particularly apple growers, lost a large portion of their crops, resulting in certain economic harm, and no doubt causing great psychological and emotional distress. An examination of the local stories generated by WWMT-TV regarding the record warmth of March 2012 and the subsequent negative consequences for farmers, found that none contained analysis or context. With these considerations in mind, it seems quite reasonable to consider that the duty of non-maleficence has been violated.

Reparation. As defined by Ross (1930), this duty stems from a previous action that has wronged person/persons, requiring the guilty party to make amends for the harm(s). Myers (2011) separated this duty into a perfect duty, to repair harms caused intentionally or through gross negligence, and an imperfect duty, for harms caused

unintentionally, “from stupidity or carelessness” (p. 327). The imperfect duty to reparation is discussed on pages 105-106. For the perfect duty of reparation to be applicable to scenario 1, the harm resulting from a lack of context and analysis in earlier stories about extreme weather events must rise to the level of being intentional or the result of gross negligence. It is nonsensical to assume that previous WWMT reporters *intended* to cause harm by not including any context or analysis in their stories. As to gross negligence, it might be argued that the reporter-weathercaster in scenario 1, as a representative of a news organization that has in the past reported extraordinary and harmful weather events without context and analysis (including the heat wave of July 1995), could be held to a higher level of complicity, and, therefore, the exclusion of such information considered an act of gross negligence.

However, it is reasonable to consider a sociological factor called *news routines* as a more plausible (and benign) explanation for the exclusion. In short, sociologists identified decades ago that the routinizing of news production (e.g. gathering, writing, reporting) is a response to the variable, unplanned nature of news coverage; it makes the task easier to accomplish by making it more manageable (Eliasoph, 1988; Gans, 1979; Hansen, Ward, Conners, & Neuzil, 1994; Schudson, 1982; Tuchman, 1973). Among the examples of news routines are the repeated use and dependence on sources that have been judged “legitimate,” and, therefore, whose information may be reported/used without scrutiny; the juxtaposition of contrasting positions/statements to create an aura of controversy and conflict; the lack of contextual material; the need to show “balance” by offering equal time/opportunity to opposing points of view; and the reporting of single events over long-term trends. Viewed through the lens of news routines, harms attributed

to a lack of context and analysis could be considered the result of factors that would fall under Meyers' (2011) descriptions as "careless" and "stupid," and will be revisited in the later discussion of the imperfect duty of reparation.

Formal justice. As with reparation, Meyers (2011) divided Ross' duty of justice into perfect and imperfect duties. The perfect duty, called *formal justice*, is more closely aligned with Ross' (1930) definition, which is to ensure a measure of pleasure to those who are deserving, preventing such from those who are not. Meyers' adaptation of this duty includes applying social structures (e.g. laws, regulations, oversight) in an unbiased manner to ensure that persons receive what they are due. Although there may be relevant laws and regulations that justly entitle farmers and others negatively affected to relief, the weathercaster-reporter is not *directly* responsible for enacting such policies or even influencing them. Therefore, the duty of formal justice is not relevant in scenario 1.

Honesty. As Bok (1989) noted, a certain degree of honesty must exist in a society in order for that society to thrive, even survive. Without the ability to reasonably assume that information shared between individuals and/or groups is substantially true, chaos reigns. Therefore, in any analysis of human interaction involving the communication of ideas, the notion of honesty is at stake; for professions that profess to seek the truth, it is especially so. Therefore, this duty will be considered highly relevant in all four of the scenarios being analyzed for this thesis. The duty of honesty may be simply stated as "do not intentionally deceive." Bok (1989) wrote, "The moral question of whether you are lying or not is not *settled* by establishing the truth or falsity of what you say. In order to settle this question, we must know whether you *intend your statement to mislead"* (p. 6) (emphasis in original). Bok noted that the intent to mislead (deceive) may be manifested

via means covert and overt, "through gesture, through disguise, by means of action or inaction, even through silence" (p. 16). To intentionally misstate the facts would be a violation of the highest order, but *omitting* information that might be considered relevant to the story would also be a violation of honesty if it were done with the intent to mislead. Therefore, in the first scenario, if context and analysis regarding the extraordinary weather event is withheld due to an intent to mislead the audience, for example by perpetuating a notion that the event is nothing more than an anomaly, then a violation of the duty of honesty has occurred. However, there is nothing in the scenario that indicates the absence of context and analysis is the result of intent to deceive. Therefore, the duty is considered fulfilled.

Imperfect Duties

Beneficence. Ross (1930) grounded this imperfect duty on the fact that there are other people in the world whose lives we might be able to improve, "whose condition we can make better in respect of virtue, or of intelligence, or of pleasure" (p. 21). By the simple act of sharing information with others, it might be argued that the weathercaster-reporter is improving the lives of others, certainly in respect of intelligence, but perhaps also in ways of convenience. The applications of this notion to journalism are obvious and myriad, and have been enunciated by many scholars. For example, Hodges (1986) referred to the basic, mass sharing of information carried out by journalists as the "bulletin board role," an important, but often underappreciated benefit: "We announce meeting times and places, births, deaths, marriages, weather, traffic patterns, and that Aunt Minnie's garden won 'Garden of the Month.' These are things we need very badly to know. They make life better, simpler, safe, more comfortable, and often more

enjoyable" (p. 29). Additionally, Hodges noted an "educational role," in which the journalist informs the public at large, aiding in the deliberative, decision-making process; an essential element for an effective democracy. With these factors in mind, it seems reasonable to consider the duty of beneficence to always be at stake in matters concerning journalism/journalists. Therefore, the duty will be considered so in all five scenarios being analyzed for this essay.

With respect to scenario 1, the audience is certainly educated by the story of how the local apple crop has been decimated as a result of extreme weather. However, it might be asked if the weathercaster-reporter's duty of beneficence should extend beyond the simple recitation of the factual event, to include context and analysis, to address the questions, "What caused this to happen" and, "Is there anything that can be done to prevent it from happening again?" By doing so, he/she may serve to increase the amount of public knowledge and understanding of the issue -- which research indicates is low -- and effect policy change that might lessen the probabilities of similar disaster(s) in the future. For example, consider that an exhaustive study of seventy public surveys on the topic of global warming over the past twenty years by Nisbett and Myers (2007) concluded, "Few Americans feel confident that they grasp the complexities of the issue and on questions measuring the actual knowledge about either the science or the policy involved, the public scores very low" (p. 447). Although it is not likely that a single report tying extraordinary weather events to climate change would change the level of knowledge, consistently mentioning the possible link in news coverage could conceivably enhance awareness. Perhaps a better informed public would demand policy decisions reflecting a concern for the serious threat many scientists believe climate

change poses to our planet; apparently a far cry from the current situation: Only one percent of respondents in a 2008 poll responded that climate change should be the top priority of the incoming administration of President Barack Obama (Nisbett, 2009). Perhaps increased public awareness would also result in better policies and programs aimed at preparing for disaster(s). Obviously, it could be argued that such outcomes would result in a better condition for society, consistent with the duty of beneficence. Insofar as an opportunity to "reasonably improve the situation of others" (Meyers, 2011, p. 327) has been neglected, it can be argued that the imperfect duty of beneficence has been violated in scenario 1.

Gratitude. Meyers (2011) take on Ross' (1930) duty of gratitude is to show appreciation for others' actions that have been beneficial: to express thankfulness. It is not a stretch to say that most, if not all, weathercaster-reporters in U. S. commercial television stations have had some training in journalism and science, likely attending an institution of higher learning. Indeed, to be eligible for membership in the American Meteorological Society (AMS), which counts more than fifteen hundred television weathercasters as members, an individual must have a particular level of training in earth and/or atmospheric sciences from an accredited college or university. With this in mind, the duty of gratitude will be considered relevant to all four scenarios.

With respect to scenario 1, it might be argued that the weathercaster-reporter should, as a way of showing gratitude to those who shared expertise and guidance along the way, do the best job possible, to be complete and thorough in all aspects of his/her job. To do less than what might be reasonably expected, for example by negligibly omitting pertinent facts, could be demonstrating a lack of gratitude toward those whose

training and instruction would call for a higher standard. It is reasonable to assume that the interests of other stakeholders – specifically, the weathercaster-reporter's employer (television station) and members of the viewing audience – coincide with those of the persons who "educated" the weathercaster-reporter because their decisions to benefit the weathercaster-reporter are premised on the expectation that he/she will discharge his/her responsibilities in accord with his/her training. Therefore, the interests of these other stakeholders will not be considered separately when considering gratitude in the four scenarios. Because the story in scenario 1 lacks relevant facts, the imperfect duty of gratitude is considered violated.

Distributive justice. As noted earlier, Meyers (2011) separated the duty of justice into a perfect duty, called formal justice, and an imperfect duty, which he calls *distributive justice*. Whereas formal justice recalls the Rossian standards of merit and impartiality in considering a measure of pleasure or displeasure, distributive justice seeks to distribute social goods in such a way as to provide the greatest benefit to the least advantaged, drawing from Rawls' (1985) concept of "justice as fairness," which contends that all citizens are viewed "as having the requisite powers of moral personality that enable them to participate in society viewed as a system of fair cooperation for mutual advantage" (p. 227).

Scientists and sociologists alike have argued that the consequences of climate change call for a consideration of justice inasmuch as the outcomes are unequally borne by those who are least able to adapt. Marino and Ribot (2012) note that as climate redistributes the availability of resources and conditions necessary for civilizations to thrive and survive, "it is about who gains and who loses as change occurs and as

interventions to moderate change unfold" (p. 323). The winners and losers in climate change redistribution are not necessarily decided equitably, in keeping with Rawls' (1985) notion of greatest benefit to the least advantaged. In fact, societies that are most dependent on natural resources for survival, e.g. rural communities in developing countries, are the most likely to be adversely impacted, reinforcing unequal economic structures (Adger, 2003; Adger, Huq, Brown, Conway, & Hulme, 2003; Kates, 2000). In this vein, an argument for a duty of distributive justice could certainly be made in the reporting of extreme weather events, suggesting an obligation for the weathercaster-reporter to include the scientific notion of a link between environmental policy/practices, global climate change, and outcomes/consequences. Considering the arguments supporting a relationship between the consequences of climate change, particularly with respect to occurrences of extreme weather, it is reasonable to consider the imperfect duty of justice to be relevant to all four of the scenarios under analysis in this essay.

It might seem a stretch, perhaps even harsh, to judge the weathercaster-reporter in scenario 1 as being guilty of violating the duty of distributive justice. However, if the lack of context and analysis in scenario 1 is part of a pattern of incomplete reporting on the subject vis-à-vis analysis and context, the accumulated effect being a *series* of missed opportunities to effect positive change related to the unjust distribution of consequences resulting from extreme weather events, then the argument for a violation might be in order. A review of more than two dozen reports covering two extreme weather events in the WWMT-TV viewing area (heat wave of July 1995, record warmth of March 2012) reveals that not one included context and/or analysis, specifically regarding the mention of a possible link between extreme weather and climate change. Based on this

information, and as scenario 1 relates to a report originally prepared and delivered on WWMT-TV's local news program (though by a reporter with no weather/meteorological training), a violation of the duty of distributive justice is noted.

Truthfulness. As noted earlier, the notion of an imperfect duty of truthfulness is adapted from Meyers' (2011) duty of honesty (originally considered an imperfect duty, but adapted for this essay into a perfect duty, as discussed above). Essentially, the concept of truthfulness acknowledges that what might be called "truth" often varies from person to person; different life experiences, differences in upbringing, education, and so on, color our views and interpretations of reality. Plato's "Allegory of the Cave" (1901) illustrates how this occurs. In the story, people are imprisoned in a cave, chained to the walls with their backs to the opening. As "Truth" walks by the cave entrance, it casts a shadow on the walls, seen by each of the prisoners. Each then determines what "truth" is and what it looks like based on his/her interpretation of what was seen, based on the shadow cast by "Truth."

Deaver (1990) noted that appreciating the nebulous nature of Truth, "necessitates a recognition of human limitations, of our own inability to 'know it all.' Therefore, truth is what we perceive, view and describe honestly and to the best of our ability..." (p. 170). The application and importance of truthfulness in any discussion of the communication of ideas from one person/group to another is obvious. Therefore, the duty is considered to be relevant to all four scenarios.

While it is true that the story in scenario one appears to be a truthful account of the event, as noted earlier, some important, highly relevant facts were not included, specifically anything pertaining to the scientifically accepted notion of a possible link

between extreme weather events and climate change. A *full* description of what is true was not given. Recalling the Allegory of the Cave, it is easy to see how the missing information might distort the shadow cast by Truth, leading to or assisting in a misinterpretation of the situation. Therefore, the imperfect duty of truthfulness is violated in scenario 1.

Reparation. This duty follows from previous harms caused unintentionally, "from stupidity or carelessness" (Meyers, 2011, p. 327). As noted in the two real-time, extreme weather events discussed earlier in this essay (the Heat Wave of 1995, and the record-setting warmth of March 2012, which is the setting for the scenarios under analysis), each produced serious economic, psychological, even life-threatening harms. While it would be difficult to make an argument for an imperfect duty of reparation based on a one-time omission of the possible link between extraordinary weather events and climate change, repeated omissions might actually call for the duty.

As noted earlier, a review of the WWMT-TV news archives reveals that the two aforementioned extreme weather events were the focus of more than two dozen stories; however, none contained context or analysis vis-à-vis a link between extreme weather and climate change. One plausible explanation for the repeated omissions might be found in "news routines," which are conventional method that make news gathering and reporting easier. As noted earlier, sociologists identified decades ago that the routinizing of news production is a response to the variable, unplanned nature of news coverage and reporting; it makes the task easier to accomplish by making it more manageable (Eliasoph, 1988; Gans, 1979; Hansen, Ward, Conners, & Neuzil, 1994; Schudson, 1982; Tuchman, 1973). To the extent that the lack of context and analysis provided by the

weathercaster-reporter is a factor of the routines of newsgathering as opposed to a deliberate decision based on the merits of the story, a case for careless reporting might be made. For example, perhaps the weathercaster-reporter, aware that a great many climate scientists believe extreme weather events are the result of climate change, considers whether to include this information in his/her report. The routines of newsgathering might factor into his/her deliberation in the following manner: Can I find an "expert" to present the information? Do I have the time to find, interview, and include the information from this person before my deadline? To be true to the journalistic norms of balance and fairness, do I need to and/or can I find an "expert" to represent the contrasting viewpoint? Can I fit this information in the constraints of the time allotted for my story? If not, will I be able to persuade the newscast producer (responsible for allotting the amount of time given to each story in the newscast) to allow extra time? Should I advocate to news managers for a stand-alone story on the topic of the possible link between extraordinary weather events and climate change?

It is easy to such considerations might dissuade the weathercaster-reporter from including information despite its merits. If such a situation were to occur infrequently, it might be difficult to make an argument for the imperfect duty of reparation; no "wrongful act," as described by Ross (1930, p. 21) was committed necessitating a repair. However, if the situation were to repeat itself, if it could be shown that a pattern of omission of context/analysis exists in the reporting of extreme weather events, and it could be reasonably assumed that the pattern resulted from "carelessness" or "stupidity" (as opposed to being intentional or due to gross negligence), a wrongful act might have been

committed. With these thoughts in mind, it seems prudent to consider the imperfect duty of reparation to be at stake and violated in scenario 1.

Self-improvement. Meyers' (2011) adaptation of this Rossian duty is a call "to improve oneself, morally, intellectually, and physically…in a manner that would facilitate moral discernment and steadfastness" (p. 328). With respect to the weathercaster-reporter, the duty would be two-pronged: first, to stay abreast of the science of meteorology and climatology; second, to stay abreast of the news of the day – current events – and how such might impact those to whom and about whom he/she might be reporting. Consistent with this notion, on the science side, the American Meteorological Society (2012) recently enacted changes to the requirements for members of the broadcast weather community who have earned a special certification of expertise, to periodically document proof of continuing education in the science. Attending educational workshops, conducting or assisting in meteorological and/or climatological research, completing online distance learning courses, and hosting job-shadowing internships for college students, among other things, can achieve this.

Practically applied to scenario 1, the duty of self-improvement would suggest the weathercaster-reporter have a level of proficiency/knowledge on the subject of extreme weather, to be able to give context to the event, e.g. an explanation of how extraordinary the event was. Additionally, he/she would be competent to properly discern from the multitude of facts – as noted earlier in this essay, some of it seemingly diametrically opposed – what is relevant and true. Because the demand for expertise is consistent in all four of the scenarios being analyzed for this essay, the duty of self-improvement will be considered relevant in all cases. Because there is nothing contained in scenario 1 that

would suggest the weathercaster-reporter has failed in his/her duty to be scientifically and journalistically current, the duty of self-improvement is considered fulfilled.

The analysis so far is summarized in Table 1.

Table 1. Scenario 1: Relevant Duties Violated and Fulfilled

	Violated	**Fulfilled**
Perfect	Non-maleficence	Fidelity Honesty
Imperfect	Truthfulness Distributive Justice Reparation Beneficence Gratitude	Self-improvement

Conflicting Duties

As illustrated in Table 1, of the nine duties deemed to be relevant in scenario 1, six are violated and three are fulfilled. The duties violated are the perfect duty of non-maleficence, and the imperfect duties of truthfulness, justice, reparation, beneficence, and gratitude. The duties fulfilled are the perfect duties of fidelity and honesty, as well as the imperfect duty of self-improvement. As noted earlier, each of the violated duties are considered so primarily due to the absence of context and analysis in the report of the devastation caused to the apple crop in western Lower Michigan as a result of extreme weather which occurred in March 2012.

Resolving the violations by adding context and analysis to the story introduces conflict(s), specifically pertaining to the perfect duty of fidelity as manifested in the norms of journalism. As noted earlier, a person claiming to be a journalist has committed to adhere to a particular set of norms that is peculiar to the journalism profession, norms being a collection of expectations about what actions are and are not expected and acceptable in particular situations (Davis, 2004; Elliott, 1986). The norms form the foundation of a promise made to the public, a guarantee of performance. A critical, widely accepted norm of journalism is *objectivity*, defined by Ward (2010) as "the idea that reporters should provide straight, unbiased information, without bias or opinion. The idea is summed up by imperatives to 'stick to the facts,' and to avoid 'taking sides'" (p. 73).

One facet of the norm of traditional objectivity is to be balanced, presenting all sides of an argument equally (Boykoff & Boykoff, 2007; Ward, 2004). As Entman (1989) stated, it is to "present the views of legitimate spokespersons of the conflicting

sides in any significant dispute, and provide both sides with roughly equal attention" (p. 30). In the case of scenario 1, if the weathercaster-reporter makes mention of the notion that a link between extreme weather events and climate change is thought to exist, without mentioning the existence of a dissenting point of view, it could be argued that the norm of objectivity has been violated; the report does not "balance the main rival viewpoints, representing each viewpoint fairly" (Ward, 2004, p. 19). Therefore, the conflicts in scenario 1 exist between the duties of non-maleficence and fidelity, between beneficence and fidelity, between distributive justice and fidelity, between imperfect reparation and fidelity, and between truthfulness and fidelity. Each of the duty conflicts identified in scenario 1 can be categorized as an ethical dilemma as opposed to ethical distress.

Weighing the Duties

It is in the process of determining to what extent the identified duties are at stake where Meyers (2011) noted the distinction between perfect and imperfect duties, the former being *strictly binding*, and the latter being *strongly urged*. It is important to note the possibility of an imperfect duty outweighing a perfect duty; however, perfect duties typically carry more "weight." With respect to the conflict between the perfect duty of fidelity and the imperfect duty of distributive justice, as noted previously, the potential for the weathercaster-reporter to effect change in environmental policy through his/her reporting, thereby more fairly distributing harms from climate change, is quite unlikely. The importance of distributive justice pales in comparison to the potential violation of the perfect duty of fidelity, the breaking of a promise of performance, manifested by a perceived lack of journalistic objectivity.

A similar argument is made with respect to the violation of the imperfect duty of reparation. The remedy for the violation of this duty – mentioning the notion of a link between occurrences of extreme weather and climate change – might constitute a violation of the perfect duty of fidelity (if a contrasting viewpoint were not offered), by breaching the implied promise of journalism to provide objective reporting. A violation of fidelity merely to remedy a violation of imperfect reparation is not justified.

Although a strong argument is made that the imperfect duty of beneficence is violated in scenario 1, the violation does not rise to the level of offsetting the violation of fidelity concomitant with remedial action. For the weathercaster-reporter, mentioning the link between extreme weather events and climate change as an act of beneficence (without giving equal attention to the contrasting viewpoint) is not worth breaking the obligation to objectivity. In a like manner, although a violation of the imperfect duty of gratitude should be avoided when possible, in the case illustrated by scenario 1, the possible moral injury of a violation are far outweighed by a possible violation of the perfect duty of fidelity that might result from the suggested remedy.

It might be argued that the violation of the duty of truthfulness deserves more serious consideration than the aforementioned four violated imperfect duties, substantially for two reasons: first, truthfulness is a foundation of relations among human beings because, "There must be a minimal degree of trust in communication for language and action to be more than just stabs in the dark. That is why some level of truthfulness has always been seen as essential to human society" (Bok, 1989, p. 18). Obviously for a journalist, whose task is to communicate information, truthfulness is an essential stock in trade. The first of Ward's (2004) standards of objectivity is *factuality,* "based on

accurate, comprehensive, and verified facts" (p. 19); truthfulness is required. Secondly, although truthfulness is clearly distinguished from the perfect duties of fidelity and honesty, the relationship between the three concepts is easy to see. A violation of honesty may portend a violation of fidelity and/or honesty, a notion that must be considered.

However, the remedy for the violation of truthfulness in scenario 1 (mentioning a positive relationship between extreme weather events and climate change) might constitute a violation of the perfect duty of fidelity. Fitting the description of the truthfulness duty, the omission of contextual information in scenario 1 was not the result of intent to mislead. The decision whether to include or exclude could be considered benign; the information, optional. Therefore, a perceived violation of this duty would not carry comparable weight to the outright violation of a promise. The duty of fidelity is privileged over the imperfect duty of truthfulness.

As with truthfulness, it seems prudent to give the violation of non-maleficence more than passing notice. Being a perfect duty, the obligation for an actor to fulfill rather than violate is more stringent than with imperfect duties (Ross, 1930; Meyers, 2011), so the violation of non-maleficence is significant. Additionally, the duty of non-maleficence addresses a core principle of how we treat each other. The sentiment is echoed in well-known axioms passed down through the ages, such as that found in the New Testament, "So in everything, do to others what you would have them do to you" (Matthew 7:12, New International Version). As noted in the earlier discussion of how the duty of non-maleficence may be relevant to scenario 1, the harm(s) identified are somewhat speculative and removed from the weathercaster-reporter. Although it is argued that

excluding information about the possible relationship between extreme weather events and climate change may play a part in perpetuating future harmful events (such as the record-setting warmth in March 2012, and the deadly heat wave in July 1995), asserting that the action directly leads to harm(s) is assumptive, much more so than asserting that the mention of such a relationship could implicate the weathercaster-reporter in a violation of fidelity vis-à-vis non-objective reporting. Therefore, the weight of the duty of non-maleficence is not as great as that of fidelity in scenario 1.

Determining *Duty Proper*, Mitigating Harms

To summarize, scenario 1 presented six duty conflicts: five imperfect duties and one perfect duty all conflicted with the perfect duty of fidelity. Careful consideration of the relevant factors and implications of each violation and conflict led to the conclusion that, for each of the duty conflicts, the perfect duty of fidelity should be privileged and considered the *duty proper*. Therefore, with respect to scenario 1, the weathercaster-reporter is ethically justified in leaving out of his/her report any mention of the possible link between occurrences of the reported weather events and climate change.

However, that is not to say that the numerous duty violations identified in scenario 1 can/should be ignored. As noted earlier, the final step in Meyers' (2011) scheme for determining the *duty proper* is to "pay attention to any associated harms and strive to mitigate them" (p. 328). In the case of scenario 1, this might be achieved by preparing/airing a future story that thoroughly addresses the issue of climate change and its possible consequences/outcomes. Another possibility might be to add the context/analysis "missing" in scenario 1 via a story or column on the television station's website, or perhaps a station-related blog, where all sides of the controversy can be fairly

and completely laid out. Making such an attempt is consistent with Meyers' call to mitigate harm(s).

Scenario 2: Reporting Plus Analysis

In the second scenario, the weathercaster-reporter delivers the story of the anomalous weather event as described in scenario 1, with one important change. At the end of the report, he/she mentions the scientifically accepted notion that climate change may be responsible for a greater number of extreme weather events. In addition to attributing the notion to an expert source, the weathercaster-reporter includes his/her opinion, expressing agreement with the position, and predicting that more extreme weather events will occur in the future. The seemingly simple change to the story results in several changes for the duties, most notably altering from scenario 1 those that are violated, those fulfilled, and ultimately, that which is the *duty proper*.

Perfect Duties

Fidelity. As described earlier, the duty of fidelity is defined as keeping one's promise(s), made either explicitly or implicitly. As in the first scenario, in the second hypothetical, the duty speaks substantially to obligations related to the norms of journalism, specifically objectivity. The addition of context and analysis by the weathercaster-reporter in the form of statements regarding the notion of a link between climate change and extreme weather events introduces the possibility of a violation of fidelity. Ward (2004) identifies six standards that substantially define the ideal of traditional, journalistic objectivity: factuality, fairness, non-bias, independence, non-interpretation, and neutrality/detachment. It is reasonable to argue that the weather-reporter's statements might have violated four of the six standards.

The first standard to be possibly violated is that of fairness, which includes balancing rival viewpoints. As noted earlier in this essay, there is dissension in the political, economic, and scientific realms regarding the existence, cause, and consequence(s) of anthropogenic warming of the Earth's atmosphere. As such, there exist contrasting viewpoints and opinions. These are not given fair representation in the weathercaster-reporter's statements (at least not in the sense of balance). In fact, only the viewpoint supporting the notion of human-induced climate change and possible negative consequences is mentioned.

A second standard that might be violated is non-bias. As stated by Ward (2004), this standard excludes prejudices, emotions, and personal interests that might distort the content of the report. Insofar as the weathercaster-reporter's statements reflect his/her prejudice about the subject, the standard may be considered violated. However, it should be noted that the statement might be considered by the weathercaster-reporter to be a legitimate assessment/opinion formed by his/her own study on the topic, applying his/her scientific knowledge. As such, it might be argued that the weathercaster-reporter, as station scientist, *should* make such a statement, grounded in the norm of science that states that one should report his/her conclusions/findings(Bucci, 1998). This point illuminates what might be considered an ethical gap between the norms of journalism and the norms of science, the analysis of which is beyond the purview of this essay. However, one way to think about the difference is to see the statement as expertise rather than bias.

The third standard that might be violated by the weathercaster-reporter's statements is non-interpretation, which Ward (2004) defines simply as excluding one's interpretations and/or opinions from reports. The violation of this standard is glaring, as

the weathercaster-reporter prefaces a conclusive statement with the phrase, "In my opinion." The fourth standard to be considered violated is neutrality and detachment, a notion that means reports should be neutral, not one-sided; the reporter should not act as an advocate for a group or a cause. The lack of a contrasting viewpoint to the weathercaster-reporter's closing statements manifests a lack of neutrality on the subject. The opinion-based statement certainly seems one-sided. The statement as a whole could easily be taken as the weathercaster-reporter advocating for a group and/or cause. With the above-noted violations of Ward's (2004) standards of objectivity in mind, it seems reasonable to conclude that the perfect of duty of fidelity, embodied by the explicit and implicit promises of journalistic objectivity, has been violated in scenario 2.

Non-maleficence. As noted in the first scenario, the potential for harm(s) resulting from the decision(s) made by the weathercaster-reporter with respect to the information about the extreme weather event, its consequences, and the positive relationship between extreme weather and climate change, make the perfect duty of non-maleficence relevant to all of the scenarios. Initially, it might seem reasonable to move the duty from the violated column in scenario one to the fulfilled column in scenario 2, because now the weathercaster-reporter acknowledges a possible link between extreme weather and climate change. Ostensibly, informing the public about the relationship could lead to policy decisions and proactive measures that would mitigate future harm(s). However, as noted above, the additional statements constitute a violation of fidelity, which introduces the possibility of different harm(s). The standards of traditional, journalistic objectivity (Ward, 2004, p. 19) form the lynchpin for the liberal theory of the press – the notion that "a privately owned, self-regulated free press protected individual

rights, informed citizens, acted as a watchdog, expressed public opinion to government, and helped to oil the economy" (p. 178). If/when the standards have been violated, society is harmed, for it can no longer depend on journalists/journalism to perform the functions vital to a democracy.

In addition to the harm caused to society, it can be argued that the breach of fidelity also brings harm to the journalism profession as a whole inasmuch as it casts doubt on its commitment to objectivity. It might also be argued that the violated duty of fidelity harms the news organization for which the weathercaster-reporter is working, by casting doubt on its commitment to objectivity. Compromising trust in the journalism profession, the journalist, and/or the organs of journalism threatens serious harm(s). The specter of these harms and possible consequences far outweighs the argument(s) for moving non-maleficence from the violated column in scenario 1 to the fulfilled column in scenario 2.

Reparation. As noted previously, the perfect duty of reparation has to do with making amends for harms caused intentionally or through gross negligence in the past. It is seemingly indefensible to claim that including the statements linking extreme weather events and climate change represent intent to harm. Therefore, there is no need for a perfect duty of reparation. The duty is not considered to be relevant to the second scenario.

Formal justice. Recalling Meyers' (2011) definition of formal (perfect) justice, the weathercaster-reporter in scenario 2 is not in a position to "give to persons what they have legitimately earned" (p. 327) with respect to impartially applied laws, regulations and other formal structures for guaranteeing entitlements. As noted in scenario 1, it may

be argued that he/she can indirectly affect the distribution of social goods; a discussion that would be more appropriate in considering the imperfect duty of distributive justice. The perfect duty of formal justice is, therefore, irrelevant.

Honesty. In the first scenario this duty was fulfilled, as the straightforward reporting of the facts of the extreme weather event and resultant consequences sans context/analysis was deemed to be without intent to mislead. By contrast, in the second scenario, the addition of statements suggesting the notion of a positive relationship between extreme weather and climate change without mentioning the disagreement about the notion's validity might be considered a duty violation. One could reasonably argue that the lack of a contrasting viewpoint –the omission of information pertinent to making a decision about whether a relationship between extreme weather and climate change exists – is tantamount to intent to mislead those who see the report. However, insofar as the weathercaster, as described in this scenario, truly believes in the veracity of his statement(s), there is no evidence of intent to mislead; therefore, the perfect duty of honesty is fulfilled.

Imperfect Duties

Beneficence. Insofar as the reporting of the scientifically based notion that occurrences of extreme weather may be linked to climate change may benefit society, it is reasonable to argue that the duty be placed in the "fulfilled" column in scenario 2. The possible benefits of reporting the link are noted earlier in this essay Meyers (2011) specifically applies the duty of beneficence to journalists, encouraging reporters to "take positive measures via good reporting" to improve the situation of others (p. 327). It is

reasonable to assert that the contextual information added to the story by the weathercaster-reporter in scenario 2 is consistent with fulfilling the duty of beneficence.

Gratitude. The application of the duty of gratitude (showing appreciation for the actions of others that have benefitted you) to the second scenario speaks to performing one's job in a manner consistent with the expectations of those who have provided instruction and opportunity. On one hand, noting the positive relationship between extreme weather and climate change is consistent with the reporting norms of science. Therefore, reporting this notion is fulfilling gratitude inasmuch as it demonstrates appreciation and loyalty to those who taught the weathercaster-reporter to do so. Additionally, because the scientific consensus is so convincing, some journalists may agree that presenting a contrasting viewpoint is not necessary and that it may even be counterproductive and biased (Boykoff & Boykoff, 2004, 2008). On the other hand, the argument could be made that, because excluding a contrasting viewpoint results in the report being unbalanced and unfair, the action is inconsistent with the training and instruction offered by journalism professionals, and, therefore, does not exhibit a spirit of loyalty and thankfulness that are characteristics of gratitude. However, it seems a stretch to accuse the weathercaster-reporter of being unappreciative or disloyal, in violation of gratitude, when an argument supporting gratitude could be just as easily defended. Therefore, it is determined that the weathercaster-reporter has fulfilled the duty of gratitude in scenario 2.

Distributive justice. To the extent that the information added to the story contributes to a more equitable distribution of social goods and protections, affording the greatest benefit to the least advantaged, the violation of imperfect justice identified in

scenario 1 is seemingly remedied in scenario 2. As noted earlier, research indicates that the consequences of climate change are not and will not be borne equally; those who live in rural, agrarian societies, with relatively little ability to take protective measures will be more adversely affected than those in industrial, wealthier economies. Ostensibly, as the public is informed about the scientifically accepted notion of the positive relationship between extreme weather events and climate change, there will be a greater demand for more stringent environmental policies, which, when enacted, will reduce the negative effect of climate change, resulting in fewer consequences to be borne by those in our society who are least able to cope. The imperfect duty of justice is, therefore, considered fulfilled.

Truthfulness. As noted earlier, the reliability of all knowledge – its level of truthfulness -- is a critical footing on which all ethical human interaction stands (Bok, 1989). At first blush, it may seem that the addition of contextual information would remedy the violation of the duty noted in the first scenario. However, as previously noted, the weathercaster-reporter in the second scenario excludes information that there is opposition to what the majority of scientists believe with regard to climate change. As a result, just as it is argued that the report given in scenario 1 is not *wholly truthful* insofar as it leaves out information about the possibility of extreme weather being caused by climate change, the report in scenario 2 is susceptible to the same accusation because it excludes information regarding the existence of contrasting, scientifically based opinions. As a result, the duty of truthfulness is considered violated in scenario 2.

Reparation. In the first scenario, it was determined that the imperfect duty of reparation was violated inasmuch as WWMT-TV may be considered culpable for

repeated omissions of contextual information in the reporting of two extreme weather events (Heat Wave of July, 1995; record-breaking warmth of March, 2012). The omissions, it was argued, were likely the result of careless oversights, springing from the constraints of news routines, therefore triggering this duty. In the second scenario, for the first time in the reporting of either of the above-mentioned extreme weather events, the question, "Why is this happening?" is addressed. It seems reasonable to argue that the added context effectively remedies the violation noted in the first scenario by offering a "repair" for previous oversights. Therefore, the imperfect duty of reparation is considered fulfilled in scenario 2.

Self-improvement. As in the first scenario, there is nothing in the report given by the weathercaster-reporter in scenario two that would indicate he/she is not current with scientific knowledge of the subject. In fact, by adding information about the scientifically accepted notion of a link between extreme weather occurrences and climate change, he/she exhibits an enhanced level of knowledge about the topic. It would be reasonable to assume this is an indication that the weathercaster-reporter in scenario 2 is staying abreast of the subject/science. With that assumption in mind, the duty of self-improvement is considered fulfilled in scenario 2.

The prior discussion regarding the application of relevant perfect and imperfect duties to the second scenario leaves us with Table 2.

Table 2. Scenario 2: Relevant Duties Violated and Fulfilled

	Violated	**Fulfilled**
Perfect	Fidelity Non-maleficence	Honesty
Imperfect	Truthfulness	Self-improvement Distributive Justice Beneficence Reparation Gratitude

Conflicting Duties

As illustrated in Table 2, of the nine duties deemed to be relevant in scenario 2, three are violated and six are fulfilled. The duties violated are perfect duties of fidelity and non-maleficence, and the imperfect duty of truthfulness. The duties fulfilled are perfect honesty and the imperfect duties of self-improvement, distributive justice, beneficence, reparation, and gratitude. As noted in the prior discussion of the relevant duties, each of the violations results from the addition of context and analysis in the form of statements by the weathercaster-reporter regarding the scientifically accepted notion of a positive relationship between extreme weather events and climate change.

To briefly summarize, because the information added by the weathercaster-reporter was unbalanced, opinionated and not neutral, the action constitutes a violation of the duty of fidelity, inasmuch as it broke the implied promise of journalistic objectivity. Thus, the violated duty of fidelity is in conflict with the fulfilled duties listed in Table 2. Likewise, because the action caused the duties of non-maleficence and truthfulness to be violated , those duties are also in conflict with the fulfilled duties. Each of the duty conflicts can be categorized as an *ethical dilemma* – as the privileging of one might constitute a negative outcome for another/others – versus ethical distress (Meyers, 2011).

Weighing Duties, Determining *Duty Proper*

Recalling Meyers' (2011) procedure for weighing the duties, a critical early step is to identify the standings of the duties, distinguishing those that are perfect (strictly biding actions) from those that are imperfect (strongly urged actions). It is important to note that Meyers argued that the added weight given to perfect versus imperfect duties is only *prima-facie* – at first blush. It is not difficult to envision a scenario in which an imperfect duty would be considered a *duty proper* over a perfect duty. The contextual nature of ethical decision-making speaks to the significance of being able to weigh conflicting duties to discern not only what is good, but also what is right. A cursory glance at Table 2 reveals that the actions under scrutiny in the second scenario have violated two of the three relevant perfect duties, and one imperfect duty.

In light of the earlier discussion identifying the relevance of each of the duties in scenario 2, it is reasonable to conclude that the potential minuses resulting from the violation of duties as noted easily outweigh the potential value of the duties that are fulfilled. Though some good may come from the information added to the story by the

weathercaster-reporter (particularly as noted with respect to the imperfect duties of distributive justice, beneficence and reparation), it does not rise to such a level as to justify the concomitant duty violations. Additionally, it is noted that the violation of the duty of fidelity is associated with the harms identified in the violation of non-maleficence. Therefore, as with the first scenario, the perfect duty of fidelity is considered the *duty proper* in scenario 2. An action violating fidelity would be considered unethical. As a result, the addition of information regarding the scientifically accepted notion of a link between occurrences of extreme weather and climate change as presented by the weathercaster-reporter in scenario 2 can be judged unethical.

Mitigating Harms

Recalling Meyers' (2011) process for reaching a justified determination of actual duty, once the *duty proper* is identified, any negative consequences resulting from the choice should be mitigated as much as possible. Even though careful consideration of the conflicting duties might seem to yield a "no-brainer" choice as to which should be privileged and which subjugated, the fact remains that choosing one over another will likely result in some negative repercussions. As Ross (1930) noted, "There is probably no act which does good to any one without doing harm to someone else, and vice versa" (pp. 33-34).

The choice of fidelity as the *duty proper* in scenario 2 means that, in order to be ethical, the weathercaster-reporter should exclude the information (as presented) about the link between extreme weather and climate change. Such an act would result in the deprivation of good to society manifested by the benefits described earlier. There are several methods whereby the weathercaster-reporter might be able to mitigate associated

harms. First, he/she might mention that the notion of a link between extreme weather and climate change is not universally accepted, acknowledging (and perhaps identifying) contrasting viewpoints, removing the statement of opinion. This would serve to alleviate some (or all) of the duty violations founded on journalistic objectivity. Another option that might be available to the weathercaster-reporter is to provide the information regarding the notion of a possible link between extreme weather events and climate change in future reports. Perhaps the weathercaster-reporter chooses to address the topic more thoroughly – including the possible impact(s) of environmental policy on climate change and, therefore, occurrences of extreme weather – using a different medium, a station-sponsored website or blog, for example. Such is the case in hypothetical scenario number 3.

Scenario 3: Station-sponsored Weblog

The third scenario introduces two substantial, relevant changes from scenario 2: First, the weathercaster-reporter addresses the anomalous weather event using a different, but still work-related, communication vehicle; second, the weathercaster-reporter is more expansive in offering analysis and context to the story. In the third scenario, the weathercaster-reporter is writing about the extreme weather event on a station-sponsored weblog (blog). Since the beginning of this century, the use of blogs has exploded. According to tracking sites such as Technorati.com and Blogpulse.com, the number of blogs has increased from just two dozen in the late 1990s, to as many as 200 million today (Blood, 2000; Helmond, 2008). Among the millions of blogs existing in the blogosphere are *journalism blogs,* what Robinson (2006) calls, "A cross between a column, a news story, and a journal" (p. 65). Journalism researchers Domingo &

Heinonen (2008) propose a four-part typology of journalistic blogs, creating a continuum from least to most institutionalized. The continuum ranges from *citizen blogs* (typically the work of an individual with no institutional support/identification), to *audience blogs* (written by members of the public, hosted on an institution's [media] site), to *journalist blogs* (written by professional journalists and not identified with a media institution), and *media blogs* (written by professional journalists on behalf and with support of a media institution). Using this typology, the blog of the weathercaster-reporter in scenario 3 would be considered a media blog.

Research indicates that blog readers are looking for intellectual, in-depth news and commentary; something that goes above and beyond the simple facts that are typical of news reports produced by traditional, mainstream journalists/journalism (Kaye, 2005). To that end, Domingo and Heinonen (2008) suggested that the journalism blog is "a new category of news and current affairs communication" (p. 3). Specifically, within the researchers' "media blog" typology, a *news commentary* function exists in which, "correspondents or specialized journalists elaborate on the stories they produce for the main outlet, and publish notes and reflections that would not have room in the paper or broadcast" (p. 11). In other words, the journalism (media) blog allows the reporter to add context and analysis to a story in circumstances that would otherwise exclude such perspective. This characterization seems to fit scenario 3 to a tee. However, it should be noted that the journalism blog as conceptualized seems to conflict with traditional notions of journalism and what a journalist should/should not do, a point made by Robinson (2006), who writes, "Journalism blogs have challenged accepted standards of journalism by blurring the lines of independence, verification, the definition of news and truth.

Compared to the real world of objective reporting where every single detail must be verified and the reporter invisible, the journalism blog allows the reporter to let loose in some creative writing" (p. 79).

In addition to a change in the method of communication, the third scenario differs from the first two hypotheticals in the amount and type of information given by the weathercaster-reporter. In the first scenario, he/she strictly reported the facts of the anomalous weather event, sans context and/or analysis. In the second scenario, the weathercaster-reporter added a few sentences (without much in the way of supporting facts) identifying the scientifically accepted notion that occurrences of extreme weather may be related to climate change, and as such, there will likely be more incidents in the future. In the third scenario, the weathercaster-reporter provides much more information supporting the notion of a link between extreme weather and climate change, and the likelihood of additional occurrences going forward.

It seems reasonable to assume that the noted changes might substantially alter the landscape with respect to determining ethical behavior.

Perfect Duties

Reparation and formal justice. The situation as described in scenario 3 does not significantly change the valence of the perfect duties of justice and reparation as described in the first two scenarios. The perfect duty of reparation is called for when an actor has *intentionally* caused harm, which does not seem to be the case in scenario 3. As discussed earlier, the duty of formal justice is substantially dependent on an actor's ability to directly provide a distribution of happiness or prevent such. In scenario 3, the weathercaster-reporter does not have the ability to enact policies or laws. With these

considerations in mind, it seems reasonable to conclude that the perfect duties of reparation and justice are not relevant to scenario 3.

Fidelity. As with the first two scenarios, in the third hypothetical, the ethical decision with respect to the duty of fidelity primarily revolves around whether reporting the scientifically accepted notion of a positive relationship between extreme weather and climate change, without including a conflicting viewpoint, is a breach of the journalistic norm of objectivity, and, therefore, a breach of fidelity. As noted earlier, two significant changes were made to the situation in scenario 3 as compared to the first two scenarios, changes that may have a bearing on how one assesses this duty: 1) the amount and type of information included in the context/analysis and, 2) the method used by the weathercaster-reporter to deliver the information.

In the first scenario, no attempt at offering contextual information was made. In the second scenario, the context consisted of a few sentences with little in the way of supporting data. In the third scenario, the weathercaster-reporter offers considerably more substance. For example, he/she cites three facts to support the notion that the anomalous weather event of March 2012 is part of a bigger picture that includes other extreme weather events and may be related to climate change. The weathercaster-reporter notes that the number of scientists who agree with the notion of global warming constitutes a "vast majority," as opposed to the more nebulous phrase "many members of the scientific community" used in the second scenario. In essence, the weathercaster-reporter makes a more compelling argument supporting the contextual information in the third scenario than in the second.

The second crucial variable in scenario 3 is the source of communication: a station-sponsored media blog. As noted earlier, research indicates that readers of such blogs are more likely to be actively seeking contextual and analytical information about news events. The information offered by the weathercaster-reporter in his/her blog seems to be in line with this demand, a fact that might serve to mitigate concern(s) about a breach of journalistic objectivity. Also noted earlier, there is precedence for the journalist-blogger (as media blogger, recalling Domingo & Heinonen's typology) to present such information, as part of a "new genre of institutionalized media journalism," where "the author is more visible and present in the story and the style is more personal" (Domingo & Heinonen, 2008, p. 11). Such nuances notwithstanding, it is a justifiable to conclude that the weathercaster-reporter has violated the duty of fidelity by presenting the information without noting a contrasting viewpoint. The report can be considered unbalanced, biased, opinionated, and not neutral, violating Ward's (2004) standards for determining whether a report is journalistically objective. The possible effect(s) of the above mentioned mitigating factors will be considered later, as duty violations are weighed.

Non-maleficence. As discussed in the first and second scenarios, the breach of objectivity produces harm to journalists, the journalism profession, and society as a whole. Therefore, as in the first two scenarios, the duty of non-maleficence in scenario 3 is violated.

Honesty. As noted earlier, the perfect duty of honesty may be grounded in the imperative to not intentionally deceive. If the weathercaster-reporter is aware that there are contrasting opinions among experts vis-à-vis climate change and occurrences of

extreme weather, and that fact is not disclosed in his/her report due to an intent to mislead the audience into thinking that there is no legitimate "other side" to the issue, the duty of honesty has been violated. It is important to note that a violation of honesty does not have to be based on an actor's assumption of outcomes resulting from the deception, only that there has been intentional deception. In scenario 2, there is no evidence suggesting that the omission of a contrasting opinion is due to an intentional act of deception. Therefore, the duty of honesty in scenario 2 is fulfilled.

Imperfect Duties

Beneficence. Inasmuch as the weathercaster-reporter in scenario 3 has attempted to inform the public about the scientifically accepted notion of the link between extreme weather events and climate change, and has included several, recent examples, he/she has fulfilled the duty of beneficence by attempting to improve the situation of others, as discussed in the previous scenarios.

Gratitude. The weathercaster-reporter in scenario 3 has a duty of gratitude to those who offered instruction, guidance and professional training. The duty is manifested by conduct consistent with the instruction and training, as a display of thankfulness and loyalty to those whose actions were of benefit. As in scenario 2, on the one hand, noting the positive relationship between extreme weather and climate change is consistent with the reporting norms of science, particularly considering that the vast majority of scientists in the field agree with the notion; this would support an argument for gratitude being fulfilled. On the other hand, it might be argued that excluding the contrasting viewpoint results in a report that is unbalanced and unfair, contrary to the journalistic norm of objectivity. As such, it may be viewed as an act of disloyalty or ingratitude to those who

instructed the weathercaster to adhere to journalistic norms. In the end, and in a similar fashion to scenario 2, it seems unfair to accuse the weathercaster-reporter of being unappreciative or disloyal when his/her actions might just as easily be viewed as fulfilling the duty. Therefore, the duty of gratitude is considered fulfilled in scenario 3.

Distributive justice. As in the second scenario, to the extent that the contextual information offered by the weathercaster-reporter in his/her journalism (media) blog contributes to a more equitable distribution of social goods and protections (as described in the discussion of imperfect justice in scenario two), the imperfect duty of justice is fulfilled.

Truthfulness. As noted earlier, the imperfect duty of truthfulness is applied to communication that is less than truthful, but not due to an actor's intention to mislead or deceive. Therefore, in the first scenario, truthfulness was violated because of a lack of information; it was determined that the lack of context made the report less than truthful. In the second scenario, the context that was offered by the weathercaster-reporter was one-sided. Although more information was offered in the second scenario than in the first, not all of the pertinent facts were offered; therefore, the duty was violated. Likewise, in the third scenario, although the weathercaster-reporter offered more information than in scenario 2, there was no mention of the existence of another viewpoint; information relevant to the notion of a link between extreme weather and climate change was excluded from the report. Therefore, the duty of truthfulness is violated in scenario 3.

Reparation. With respect to the imperfect duty of reparation, the relevant factors in scenario 2 are not changed in scenario 3. Therefore, the rationale used to conclude that

the duty was fulfilled in the second scenario can be applied in the third scenario; thus, the imperfect duty of reparation is considered fulfilled in scenario 3.

Self-improvement. The notion of this duty is that one has a responsibility to improve one's own condition with respect to virtue and/or intelligence (Ross, 1930; Meyers, 2011). As applied previously in this essay, the duty compels the weathercaster-reporter to stay abreast of the science of meteorology/climatology, and to be "current" with regard to news and events related to the weather, the environment, and other matters scientific (in view of the informal designation "station scientist" discussed earlier). From the information presented in the weathercaster-reporter's blog as detailed in scenario 3, it seems he/she is indeed current with the topic of climate change and how it might be related to the extreme weather event of March 2012. Therefore, as in the second scenario, the imperfect duty of self-improvement is fulfilled.

The prior discussion regarding the applications of relevant perfect and imperfect duties to the third scenario is summarized in Table 3.

Table 3. Scenario 3: Relevant Duties Violated and Fulfilled

	Violated	**Fulfilled**
Perfect	Fidelity Non-maleficence	Honesty
Imperfect	Truthfulness	Self-improvement Justice Beneficence Reparation Gratitude

Conflicting Duties

As illustrated in Table 3, of the nine duties deemed to be relevant in scenario three, three are violated and six are fulfilled. The duties violated are the perfect duties of fidelity and non-maleficence, and the imperfect duty of truthfulness. The duties fulfilled are the perfect duty of honesty and the imperfect duties of self-improvement, distributive justice, beneficence, reparation, and gratitude. As noted, each of the violations results from the information contained in a media blog written by the weathercaster-reporter, presenting the scientifically accepted notion of a positive relationship between the occurrence of extreme weather events and climate change.

To briefly summarize, because the topical information contained in the blog was unbalanced, opinionated and not neutral, the duty of fidelity is violated, as the implied promise of journalistic objectivity is compromised. Therefore, the violated duty of fidelity is in conflict with the fulfilled duties as listed in Table 3. Likewise, because what was written in the blog violated the duties of non-maleficence and truthfulness, those duties are also in conflict with the fulfilled duties. Each of the duty conflicts can be categorized as an *ethical dilemma* – as the privileging of one might constitute a negative outcome for another/others – versus ethical distress (Meyers, 2011).

Weighing Duties, Determining *Duty Proper*

Table 3 reveals that the weathercaster-reporter violated two relevant, perfect duties, and one imperfect duty by blogging about the possible positive relationship between extreme weather events and climate change without offering a contrasting viewpoint. The violation of multiple perfect duties should give pause to anyone attempting to determine whether an action is ethical. As in the second scenario, Table 3 suggests asking whether the pluses resulting from duties fulfilled effectively counterbalance the minuses from duties violated.

There are two significant differences between scenarios 2 and 3. The first significant difference is that in scenario three, the weathercaster-reporter cited several facts supporting the notions that extreme weather events have been occurring with greater frequency, and that climate change is believed by many scientists to be the catalyst. The facts were presented as part of a "bigger picture," related to climate change. A key element of Ward's (2004) *pragmatic objectivity,* which is offered as an alternative to traditional objectivity, is the notion of *holistic evaluation*, in which facts are selected for

relevance and importance, organized into coherent patterns, and placed into proper context. This process tempers the importance of relying on facts without context, which Ward notes is a flaw of traditional journalistic objectivity. However, inasmuch as traditional standards of objectivity are being used in this essay to determine the relevance and weight of duties, the violations of those standards as described above are not mitigated by the addition of supporting facts.

A second major difference is that the notion of a positive relationship between extreme weather and climate change is written in a media blog, as opposed to being an aside in a television news story. As noted earlier, research indicates that readers of blogs *expect* there to be context, analysis, and even opinion/commentary in blog posts, a point that highlights the need to consider new normative dimensions for journalism in the digital era (Singer, 2006). Thus, it might be argued that contextual information presented in a media blog should not be so tightly constrained by the standards of traditional objectivity; or at the very least, other relevant ethical considerations should be given more weight in such cases. Thus, the fulfilled duties listed in Table 3 have more influence; they are not dismissed as easily as in scenarios 1 and 2. Even so, a violation of fidelity, the breaking of one's promise, carries tremendous weight, so much so that the above-noted changes and concomitant mitigating factors do not justify the action. As in the first two scenarios, the duty of fidelity is considered the *duty proper*, and inasmuch as that duty has been violated, the action of the weathercaster-reporter in scenario 3 is considered unethical.

Mitigating Harm

As with scenario 2, the determination of fidelity as the *duty proper* in scenario 3 suggests the weathercaster-reporter exclude the notion of a positive relationship between extreme weather occurrences and climate change from his/her report. It should be noted that taking this action arguably causes harm to society inasmuch as the possible gain/good resulting from the fulfillment of beneficence, imperfect justice, and imperfect reparation will be canceled. As such, it behooves the weathercaster-reporter to act to mitigate the harm by disseminating the information in a way that is consistent with the duty of fidelity, in a way that would not violate the traditional standards of objectivity as noted earlier. This could be simply done by fairly noting and identifying in the blog post the existence of a contrasting point of view, that there are "experts" in the realms of science, economics, and politics who disagree with the majority-held beliefs regarding climate change and the possibility of a causal relationship with occurrences of extreme weather events.

Scenario 4: Moonlighting Expert

The fourth scenario finds the actor in a very different situation from that of the first three hypotheticals. Instead of having the role of weathercaster-reporter for a local television news organization, he/she is addressing the extreme weather event of March 2012 via an independent vehicle, as author of a book (though as noted, he/she remains employed by the television station as a weathercaster). The book documents the event's disastrous consequences, arguing that more catastrophes can be expected due to the effects of climate change on weather patterns. In support of these assertions, the weathercaster-reporter (now author) draws on his/her personal scientific knowledge as

well as expert opinions from relevant scientists. The "other side" of the issue is identified, but summarily dismissed as a minority opinion, fomented primarily by special interest groups that have a financial stake in preventing environmental policies meant to mitigate climate change. The situation described in the fourth scenario drastically changes the relevant factors, which in turn affects how the duties are considered.

Perfect Duties

Reparation and formal justice. Although the situation in the fourth scenario is considerably different than the first three, the status of the perfect duties of reparation and justice remains the same. There has been no *intent* to harm others; therefore, the perfect duty of reparation is not applicable. Likewise, as the weathercaster-reporter in scenario 4 does not have the ability to enact policies or take action(s) that would impact the impartial application of laws and other formal guarantees of entitlements, the duty of formal justice is not applicable.

Fidelity. As noted in the first three scenarios, the duty of fidelity may be viewed as keeping one's promise(s), as made either explicitly or implicitly. In the context of the first three scenarios, in which the weathercaster-reporter was a member of a news organization disseminating information via a television newscast and/or blogging on a station-sponsored journalism blog, the duty was defined by adherence to standards of traditional objectivity (Ward, 2004). Obviously, changing the role/identity from *news reporter* to *book author*, not affiliated with a news organization, will likely change the way fidelity will be measured, e.g. not all of the standards of objectivity as identified earlier in this essay apply. Any author writing material reasonably assumed to be factual has a duty of fidelity inasmuch as he/she is subject to an implied promise of factuality.

However, unlike the situations described in the first three scenarios, in which the weathercaster-reporter was working for and identified with a news organization, in the fourth scenario, he/she is acting independently.

Being a member of a news organization, the weathercaster-reporter might continue to be subject to the tenets of journalistic objectivity as described earlier. However, inasmuch as he/she is acting independently, and not identifying the contents of the book with the news organization, it is determined that the obligation to objectivity, as it extends for the journalist beyond factuality to fairness, non-bias, independence, non-interpretation, and neutrality/detachment (Ward, 2004) is not relevant to the actor in scenario 4. Insofar as the information contained in the book meets the standard of factuality – the information is accurate, comprehensive, and verifiable – the duty of fidelity has been fulfilled.

Non-maleficence. The harm(s) that resulted from the violation of fidelity in the second and third scenarios are removed. However, because the weathercaster-reporter in scenario 4 remains affiliated with the television station's news organization, and, therefore, continues to be identified as a journalist, the opinionated, unbalanced, and interpretive nature of the book asserting a positive relationship between the extreme weather event in March 2012 and climate change, might bring reproach to the news organization (specifically), and to journalists/journalism (generally). It is quite conceivable that the publication of the book might also compromise the credibility of the weathercaster-reporter when he/she claims to be objective in future reporting related to the subject.

Additionally, the book might indirectly cause harm to those who would "lose" from the implementation of environmental policies. For example, those whose lives depend in any way on the continued dependence on the burning of fossil fuels for energy might be adversely affected by such policies. The list of the negatively impacted goes beyond those who work directly for fossil fuel industries, e.g. coal and oil companies, to those who might be financially invested in their performance, and those who work in industries that are indirectly, but inextricably linked to them, such as automobile manufacturing, electrical utilities, and transportation. It is because of these concerns that the duty of non-maleficence is considered violated in the fourth scenario.

Honesty. Recalling this duty as defined previously, in order to justify a violation, there must be intent to deceive. Insofar as the weathercaster-reporter in the fourth scenario has, a) noted the existence of a contrasting point of view in the climate change debate, b) given a fair and factual representation of that opinion, and c) has verified that all information in the book is, as far as can be reasonably known, accurate and true, the duty of honesty is fulfilled in scenario 4.

Imperfect Duties

Beneficence. It seems reasonable to argue that the rationale used to justify placing beneficence in the fulfilled column in the second and third scenarios is even more compelling in the fourth hypothetical. As noted earlier, informing the public about the scientifically accepted notion of a positive relationship between extreme weather and climate change might indirectly lead to more environmentally-friendly policy decisions, resulting in an improved situation for society. In the fourth scenario, it is envisioned that the weathercaster-reporter is more thorough and forceful in making the case that

anthropogenic warming of the atmosphere is real, is human-induced, and is creating harmful consequences for society. Therefore, the duty of beneficence is fulfilled in scenario 4.

Gratitude. The book as envisioned in scenario 4 would be a well-researched, scientifically accurate, thorough discussion of the subject of anthropogenic warming of the atmosphere and its relationship to climate change and occurrences of extreme weather. In order to accomplish the task of authoring the book, the weathercaster-reporter would obviously draw from instruction and training provided by those who had shared their knowledge and expertise. He/she would adhere to the shared norms of science and journalism as described earlier in this essay; in doing so, the weathercaster-reporter would be displaying gratitude, a spirit of loyalty and thankfulness to those whose teaching were of benefit. Therefore, the duty of gratitude is fulfilled in scenario 4.

Distributive justice. Consistent with the rationale identified in scenarios 2 and 3, addressing the scientifically accepted notion of a positive relationship between extreme weather events and climate change suggests that the imperfect duty of justice has been fulfilled. Recalling Meyers' (2011) adaptation, this imperfect duty calls for the distribution of social goods in a way that "evens the playing field" between the advantaged and disadvantaged. As noted earlier in this essay, research indicates that the consequences of extreme weather, events as well as many projected negative outcomes expected from climate change, will be unequally borne by those at the lower end of the global socio-economic scale.

Insofar as the book as envisioned in scenario 4 attempts to inform society about the possible relationship between extreme weather events and climate change, and

attempts to illuminate the overwhelming amount of scientific evidence suggesting anthropogenic warming of the atmosphere is real, is man-made, is affected by environmental policy, and presents a serious threat to our planet and its inhabitants, it is consistent with the attributes of the imperfect justice duty as described by Meyers. Therefore, the duty of distributive justice is considered fulfilled in scenario 4.

Truthfulness. Evaluating this duty in scenario 4 might be a little more difficult than would seem at first blush. On the one hand, it would seem reasonable to state that the duty has been fulfilled inasmuch as the weathercaster-reporter has thoroughly and factually written about the subject of extreme weather and its possible relationship to climate change. Additionally, as noted earlier, the book as envisioned in the hypothetical case fairly mentions the existence of a contrasting point of view, supporting the spirit of truthfulness, to freely offer all relevant information. On the other hand, one might argue that the spirit of truthfulness is violated inasmuch as the weathercaster-reporter offers much more information in support of the extreme weather-climate change relationship; relatively little information is given to the "other side."

Discerning the merit of this argument leads to the conclusion that truthfulness (as applied in this scenario) does not require *equal amounts* of information to be provided. It is a reasonable notion that in every situation where there is more than one viewpoint, there must be an allowance for advocacy, where advocacy is allowed. Perhaps more important, with respect to the climate-change debate, the vast majority of scientists published in the related disciplines support the notions of human-induced anthropogenic warming of the atmosphere and the likelihood of a causal relationship between climate change and extreme weather occurrences. One could, therefore, *expect* more evidence in

support of these notions. In consideration of these arguments, the duty of truthfulness does not require the weathercaster-reporter to provide the same amount of information for and against climate change in scenario 4. With these thoughts in mind, the duty of truthfulness is considered fulfilled in scenario 4.

Reparation. Insofar as the book as envisioned in scenario 4 can be viewed as effecting repairs for inadequate, careless reporting of prior extreme weather events, the imperfect duty of reparation is fulfilled. Because the weathercaster-reporter as author in scenario 4 is still employed and a part of the local television station's news organization, his/her effort to illuminate the notion and educate the public might be viewed as a way of "making up" for past reportorial sins.

Self-improvement. Authoring a book on any subject requires a high level of knowledge and expertise. The book envisioned in scenario 4 suggests that the weathercaster-reporter has improved himself/herself intellectually to the point of proficiency with respect to the subjects of extreme weather, anthropogenic warming of the atmosphere, and climate change. The duty of self-improvement is clearly fulfilled.

Table 4 displays the relevant perfect and imperfect duties and how they fare in scenario 4.

Table 4. Scenario 4: Relevant Duties Violated and Fulfilled

	Violated	**Fulfilled**
Perfect	Non-maleficence	Fidelity Honesty
Imperfect		Self-improvement Justice Beneficence Reparation Truthfulness Gratitude

Conflicting Duties

As illustrated in Table 4, of the nine duties deemed to be relevant in scenario 4, one is violated, and eight are fulfilled. The violation to non-maleficence brings that duty into conflict with the remaining relevant duties. As in the previous scenarios, the conflicting duties in scenario 4 can each be categorized as an *ethical dilemma*; that is to say that the privileging of one might constitute a negative outcome for the other(s).

Weighing Duties, Determining Duty Proper

At issue in scenario 4 is whether the violation of non-maleficence is outweighed by the fulfillment of all the other relevant duties. Recalling the harms from the previous discussion, they are: a) a potential direct harm to the reputation of the weathercaster-reporter, the television station news organization, and to journalism/journalists in general, due to the weathercaster-reporter's continued employment/affiliation, and b) potential indirect harm to those who benefit from the monetary success of the fossil fuel industry as well as those industries directly related to/dependent on fossil fuels.

The identified benefit(s) from the duties fulfilled center primarily on the possibility that more stringent environmental policies will be enacted, the result of an electorate alerted to the relationship among environmental policy, climate change, and occurrences of extreme weather. The stronger policies would ostensibly lessen the impact of climate change, resulting in better living conditions (beneficence) and interrupting the unjust manner in which the consequences of climate change are visited on the least advantaged (imperfect justice). Considering the weight of the duty violation versus duty fulfillment, it seems prudent to conclude that in scenario 4, the pluses of fulfillment far outweigh the moral liabilities of violation. Specifically, the duty of beneficence, that is to do what is possible to improve the situation of others, is determined to be the *duty proper*.

Mitigating Harm

The weathercaster-reporter deciding to leave the journalism profession before the hypothetical book is published might mitigate the harms to himself/herself, the news organization, and to journalists/journalism. However, doing so might diminish his/her

credibility, mitigating the identified benefits. The weathercaster-reporter might address the concerns as part of a preface to the book, perhaps noting that the opinions stated in the book are strictly his/hers, should not reflect on the ability of his peers to be objective on the subject, and also should not reflect on his/her ability to be objective and fair when discussing the subject in the context of the local television newscast and/or weathercast. As to the potential harm(s) caused to those who benefit from the success of the fossil fuel industry, perhaps the weathercaster-reporter might include in the book a section on how the industry might change (and is in the process of changing) to become more environmentally friendly. Additionally, he/she might include a section identifying technologies that offer the greatest opportunity for providing clean energy in the future.

Summary of Analysis

To summarize, four hypothetical scenarios were proposed to illustrate how the television weathercaster might report an extreme weather event, and how the decision whether to add context/analysis vis-à-vis the possible relationship to climate change might present duty conflicts. For each of the scenarios, relevant *prima-facie* duties were identified and considered, leading to a determination of duties violated and fulfilled. A two-by-two box was constructed for each of the scenarios, separating perfect duties fulfilled from perfect duties violated, and imperfect duties fulfilled from imperfect duties violated. Conflicting duties were then weighed to determine the *duty proper,* which served as the foundation for a determination of whether the actions of the television weathercaster in each scenario were ethical.

The results of the analysis support a conclusion that the actions described in scenarios 1 and 4 were ethical while the actions in scenarios 2 and 3 were unethical.

Essentially, the deciding factor in each of the scenarios was the determination of the perfect duty of fidelity. In scenarios 1 and 4, it was determined that the duty was fulfilled, and, therefore, the actions of the television weathercaster as described in each were ethical on balance, even though a number of other duties were violated. The weight of fidelity was enough to tilt the scale to the "unethical" side when violated and to the "ethical" side when fulfilled. Therefore, one helpful suggestion for the weathercaster-reporter emanating from this analysis is that he/she should be vigilant in determining that his/her actions not violate fidelity.

Mitigation of harms resulting from the duty violations was discussed specific to each scenario. As one might expect considering the context of all four scenarios, the dissemination of information was a shared characteristic. For scenario 1, the suggested mitigation was to provide more information (context and analysis) regarding the scientifically accepted notion of a positive relationship between occurrences of extreme weather and climate change. Scenarios 2 and 3 shared a recommendation to (at least) make mention of the viewpoint opposing the notion of a positive link between extreme weather and climate change. For scenario 4, it was recommended that the weathercaster-reporter acknowledge and attempt to allay concern(s) regarding his/her ability to be objective in future reporting about the topic of climate change. In the concluding chapter, I will elaborate on the implications of my analysis for dealing with ethical ambivalence in weathercasting and for future research.

CHAPTER V

DISCUSSION

The role of the television weathercaster is obviously much more nuanced and serious than that conjured up by comedian George Carlin's "hippy-dippy-weatherman." In fact, it is much more sober, closer to that envisioned more than twenty years ago by Rosen (1989), who wrote of a day when the weather would be implicated in a "complex of social and political problems," causing the line between news and weather to be blurred as "the weather report is less able to maintain its exemption from history, politics and power" (p. 32). The advent of Rosen's prophecy brings into relief the ethical tensions faced by the weathercaster; considered part-scientist and part-journalist, he/she is susceptible to quandaries resulting from being caught in ethical gaps that exist between the two fields.

In certain situations, ethical gaps may leave the weathercaster feeling as if he/she is being emotionally pulled in different directions, a condition called *ethical ambivalence* (Jansen and Von Glinow, 1985), a type of sociological ambivalence in which "behaviors, attitudes, and norms that are shaped and maintained by the organizational reward system conflict with the behaviors, attitudes, and norms congruent with the ethical values and judgments of organizational stakeholders" (p. 815). Left unresolved, ethical ambivalence may result in benign inaction at best and, at worst, unethical action(s) resulting in harm. The purposes of this study have been to a) identify how ethical ambivalence might occur and present for the television weathercaster, and b) offer an ethically grounded method and guidelines for decision-making that can be used when difficult situations arise.

Following a discussion identifying the concepts of *norms* and *roles*, which included explaining their relevance to the local television weathercaster as a member of a news organization, the dual-role nature of the occupation was clarified using Lessl's (1988) concepts of priestly and bardic voices, where it was noted that the weathercaster is called on to be both *priest* (expert) and *bard* (storyteller). On the one hand, he/she is often viewed as "station scientist," the person to whom the television newsroom turns for *expertise* in matters scientific, a priestly role. Performing that role, the weathercaster might assume the norms of science, one of which is to report all findings/conclusions, regardless of implication(s) and/or consequence(s). On the other hand, the weathercaster is a *storyteller*, interpreting and conveying priestly information (e.g. meteorology, climatology, related environmental/scientific subjects) using "symbolism that gives voice to an established cultural identity" (p. 183).

In performing this task, the weathercaster is a featured part of a television newscast, and as such is identified with a news organization. He/she is, therefore, beholden to tenets of journalistic objectivity, among them the imperatives of neutrality, non-interpretation, and fairness, which is to represent all legitimate viewpoints fairly. It is easy to see how the weathercaster may be faced with ethical problems when asked to combine the priestly and bardic personas, to be simultaneously scientist *and* journalist; this is particularly true if the information is controversial or perhaps political (as opposed to the relatively benign weather forecast), "introducing an issue into a previously issue-less realm" as Rosen (1989, p. 31) suggested.

For the purpose of investigating the nuances of such dilemmas, this study proposed four hypothetical scenarios, each presenting the weathercaster with ethical hard

choices regarding the reporting of an extended period of record-setting warmth covering the Midwest region of the United States in March 2012. The extreme weather event resulted in harsh consequences for fruit farmers in the weathercaster's home television market, as freezing temperatures in April killed tree buds that had prematurely flowered because of the unusual warmth. The ethical problem for the weathercaster turned weathercaster-reporter in each of the four scenarios centered on how to report the event, and whether (and how) to report that the event may be tied to climate change, a highly politicized and hotly debated topic.

The ethical foundation for measuring the actions in each of the scenarios is an adaptation of the deontological philosophy of W. D. Ross (1930), who articulated a weighted-duty approach to determining what one should do when imperatives conflict. In short, Ross' approach suggests a short list of duties, called *prima-facie*, which wholly constitute an individual's ethical obligations. When two or *more prima-facie* duties conflict, Ross suggested careful discernment of the relevant factors to determine which duty to privilege, that duty being called the *duty proper*. Ross acknowledged that, in difficult cases with conflicting duties, deciding which to privilege and which to subjugate may involve nothing more substantial than "opinions which are not logically justified conclusions from the general principles that are recognized as self-evident" (p. 31). In such cases, Ross noted that the individual must assume the "moral risk" that the determination of the *duty proper*, creating positive outcomes for some, may concomitantly create negative outcomes for others.

Meyers (2011) offered an adaptation of Rossian deontology by expanding the list of *prima-facie* duties; in particular, he distinguished between *perfect duties* (more

stringent requirements for action) and *imperfect duties* (less stringent requirements for action), developing a schema for determining the *duty proper* in ethical hard cases. In each of the four scenarios, the pertinent factors were discussed and relevant duties were identified and weighed. The result was a "duties scoreboard," a two by two contingency table whereby relevant duties were separated into perfect and imperfect categories as well as duties violated and fulfilled.

The discernment process suggested that we order the scenarios from "most ethical" to "least ethical" on a continuum of ethical communication. The actions in the two scenarios in which the weathercaster-reporter was substantially either bard or priest (scenario 1, "reporting with no analysis"; scenario 4, "moonlighting expert") were more ethical than actions in the two scenarios where the weathercaster-reporter could be viewed more as a hybrid between scientist and journalist (scenario 2, "reporting plus analysis; scenario 3, "station-sponsored weblog"). This was primarily due to violations of fidelity in the second and third scenarios, resulting from breaches of the norm of journalistic objectivity. The discernment process revealed that a serious attempt at balancing the reporting on climate change might have moved the fidelity duty from the "violated" column to the "fulfilled" column in scenarios 2 and 3, suggesting that a simple adjustment to the report(s) could change the ethical judgment entirely.

With the above considerations in mind, the research questions posed earlier in this study are recalled:

- *RQ1: What are the principal kinds of duty conflicts that can contribute to ethical ambivalence for weathercasters as part-journalists and part-scientists?*

- *RQ2: How should weathercasters deliberate about these duty conflicts in specific situations to determine their duty proper?*
- *RQ3: What guidelines can be recommended to aid weathercasters in future deliberations about such duty conflicts?*

With respect to the first research question, the principal duty conflicts that might contribute to ethical ambivalence for the television weathercaster substantially concern fidelity, beneficence, reparation (imperfect), and justice (imperfect). Excluding information regarding the scientifically accepted notion of human-induced anthropogenic warming of the atmosphere and its possible effect on extreme weather occurrences violates duties related to improving the situation of others (beneficence), to making amends for prior reporting oversights (imperfect reparation), and to interrupting a distribution of misfortune to those who research indicates will bear an unfair share of the consequences of climate change (distributive justice). However, including the information, in the context and manner described in scenarios 2 and 3 (in which the weathercaster-reporter was determined to have acted unethically), constitutes a violation of fidelity inasmuch as the report is not "balanced" by the presentation of a conflicting viewpoint.

With respect to the second research question, this study has attempted to demonstrate how the deliberation about conflicting duties specific to certain situations might appear. Following Meyers' (2011) schema for applying and weighing Rossian duties, the duty implications of all relevant factors in the situations described were thoroughly analyzed. The resulting "scoreboards" made it easy to visualize which relevant duties were at stake, where the primary tensions lay, and whether conflicts

involved primarily perfect or imperfect duties. The potential pluses and minuses of various ways to resolve the conflicts of duties were explicated, providing the groundwork for weighing relevant duties and determining the *duty proper* in each case. With respect to the third research question, the following guidelines are recommended for weathercasters who might be faced with duty conflicts resulting from their dual roles as journalist and scientist:

a) Weathercasters, as journalists, promise to meet the expectations of objectivity, which means that, as a rule, they should not offer their opinions.
b) If/when the weathercaster offers an opinion, it should be based on his/her expertise, grounded in and attributed to scientific knowledge and empirical evidence.
c) In determining whether to offer an opinion, weathercasters should give consideration to the level of urgency and potential harm(s) of action/inaction; i.e., the higher the stakes and the more urgent the need, the more ethical justification there is for offering their opinion.
d) Consistent with the objectivity notions of fairness and balance, legitimate, contrasting points of view should be identified and treated in an impartial manner. An exception can be made when the weathercaster is not writing or reporting on behalf of the station (for example, in an independently written book or independently produced documentary). Nevertheless, it is prudent for the weathercaster, even in such cases, to issue disclaimers about his/her employer's views and his/her own future reporting to keep faith with stakeholders and avoid harming the station and the profession by association.

e) If time/space concerns restrict ability to fully and fairly discuss all legitimate viewpoints, search for/utilize other methods to communicate more thorough information (e.g. website, blogosphere, additional reports on newscast).

f) In attempting to provide balanced, thorough coverage, recognize that "balance" does not necessarily mean "equal."

Limitations and Future Study

Among the limitations of this analysis is the decision to apply an adapted version of Rossian deontology to the subject of resolving ethical tension and conflict (as opposed to using a different philosophical approach). Obviously, applying a different philosophy would yield very different outcomes. The decision to use Ross'(1930) notion of weighted duties comes with an inherent limitation, *ethical uncertainty*, noted by the eminent philosopher himself: "The judgment that as to the rightness of a particular act is like the judgment as to the beauty of a particular natural object or work of art. Both in this and in the moral case we have more or less probable opinions which are not logically justified conclusions from the general principles that are recognized as self-evident" (p. 31). However, as Ross and his supporters argue, the arguments for other philosophical approaches -- utilitarianism for example – require the analyst to make other kinds of assumptions, creating a similar "squishy-ness" to the process and its conclusions.

Additionally, because the four hypothetical situations analyzed in this study are (of necessity) particularly nuanced, the applicability to other scenarios may be compromised. Altering the relevant factors from one situation to another may alter the manner in which the principles discussed earlier are applied. Even so, I argue that the guidelines for weathercasters springing from this analysis could be a useful tool for

determining right action. If nothing else, the guidelines offer the weathercaster facing ethical ambivalence some rules of thumb based on a thorough analysis of the most pressing duty conflicts that may arise in his or her dual role. These guidelines may not be the end of a weathercaster's deliberation, but at least they provide a useful starting point. A future study in this arena might propose different hypothetical situations to consider, e.g. the weathercaster-reporter might be called on to be an expert source of information by another news outlet; perhaps the weathercaster-reporter is asked to contribute substantially to a long-form documentary for his/her employer, or perhaps for a local public television station.

Although the hypothetical scenarios posed in this study envision the weathercaster employed by a local television station, the applications and analyses need not be confined to the local level. Weathercasters at the regional and/or national level (e.g. The Weather Channel, Weather Nation) could easily face similar ethical conflicts, for example, when reporting about weather events, writing about weather and the environment on a company-supported blog, or presenting the national weather picture/forecast as part of the daily cablecast/broadcast. Indeed, as noted earlier, The Weather Channel has from time to time reported in detail about controversial environmental issues, specifically climate change. The conflicts and tensions identified earlier with respect to the local television weathercaster are the same for the weathercaster working for an outlet communicating nationwide. Therefore, the processes identified earlier for determining right action in ethical dilemmas are applicable.

As noted in this study, the increasing politicization of environmental topics such as global warming and climate change will likely serve to heighten the ethical conflicts

and tensions faced by the local television weathercaster. Unfortunately, a review of the academic literature indicates a dearth of information on the subject of how one might ethically respond to these challenges. There is, therefore, a need for academicians to fill the void, providing thought-out, ethically grounded solutions that take the role commitments of the weathercaster seriously.

As noted earlier, there are gaps between the ethical conduct spelled out for the weathercaster as scientist (e.g. the American Meteorological Society's Code of Conduct) and journalist (e.g. the Society of Professional Journalists' Code of Ethics). Meyers' (2011) process for weighing duties as adapted in this study might be particularly useful for crafting ethical guidelines that would address the problem, offering a foundation for determining standards specifically addressing conflicts between science and journalism.

For the purpose of this study, a single event and issue were selected for analysis. However, the usefulness of Meyers' (2011) schema for moving from *prima-facie* to *duty proper* in ethical hard cases extends to other issues and concomitant dilemmas which might present to the weathercaster-reporter, and for that matter, to other members of the newsroom. An example is the reporting from New Orleans and the surrounding region following the devastation of Hurricane Katrina in 2005. Issues concerning the lack of disaster preparedness and response, and the seemingly unjust manner in which some members of the community suffered much more than others presented ethical challenges for journalists forced to choose between fidelity (in the form of detached objectivity) and justice. Meyers' schema, as adapted in this study, could be used to judge whether a reporter's actions were ethically defensible; perhaps more important, the process could be employed to determine right action. As electronic media continue to expand the

information landscape to include new resources (e.g. blogs, social media, video sharing, and websites), the challenges to traditional thinking about duty-related norms such as journalistic objectivity will demand a dynamic, flexible process for determining not only what is right, but what is good.

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NOTES

[1] Ross' deontological theory is useful as an analytical framework for addressing the research questions being addressed in this study. The purpose of this framing choice is not to defend Rossian deontology as such (i.e., as the best of all ethical theories).

[2] I realize that there may be other potential role conflicts for the weathercaster besides the scientist/journalist conflict. However, this particular conflict will be the focus of my analysis.

[3] The notion of "being a professional" is yet another dimension of the weathercaster role. Although I will not discuss this dimension in detail, it is worth noting that it is often supposed that "to be professional is to be ethical" (Adams & Balfour, 2009, pp. 32-33). Ethics is inherent in professionalism in the sense that professionals can be counted on to act with due care in the best interest of society and of the individuals who depend on their professional services. For the purpose of this essay, journalism will be considered a profession in Davis' (2004) sense of "a number of individuals in the same occupation voluntarily organized to earn a living by openly serving a moral ideal in a morally permissible way beyond what law, market and morality would otherwise require" (p. 217). Journalists share a common occupation (disseminating information about society), serve a moral ideal (facilitating public discussion and engagement), and operate in a morally permissible way (telling the truth).

[4] For a thorough history of the treatment of science in the U.S. press, see Hay (1970) and Nelkin (1995).

[5] Full disclosure: I was one of the weathercasters invited, and I did attend.

[6] I will use "obligations" and "duties" interchangeably.

[7] For a thorough discussion of the typical objections to intuitionism in moral philosophy, see Roeser (2011), pp. 79-107.

[8]Although the SPJ Code of Ethics does not specifically mention the term "objectivity," admonitions to be truthful, fair, unbiased, independent and neutral, which are in the code, embody and reflect the different dimensions of objectivity.

[9] For a thorough discussion and review of the literature on the effects of marginalization and the consequences of natural disasters, see Morrow (1999).

[10] The IPCC is a United Nations-sponsored panel of leading climate scientists from around the globe.

[11] The report identifies land-use change and increased levels of methane and nitrous oxide (the result of agricultural activities) as additional contributors to an increase in greenhouse gas concentrations.

[12] The researchers referred to their finding as an "adaptive infrared iris" that opens and closes to keep the earth's temperature fairly steady even in light of increasing atmospheric carbon dioxide levels.

The Heat Wave of 1995 was particularly newsworthy for causing hundreds of fatalities in the city of Chicago. For a detailed history of the event, see Klinenberg (2002).

[13] For a more thorough dissection of this divide with references to scholarly analyses, see McCright & Dunlap (2011, p. 156).

[14] A recent, personal experience excellently demonstrates how this might occur. In the midst of a hot, dry summer (2012), one that climatologists say has not been seen in

at least fifty years or more, my News Director, citing a viewer's e-mail questioning why no there had been no mention of climate change as a possible cause, requested I prepare a story on such topic.

[11]None of the meteorological staff was directed to prepare a story offering any scientific contextualization of the event.