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An Informational Impasse

Over the last two decades climate change has become a prevalent topic throughout not just Northern America, but the world. As a race we are united in the devastating effects we have had on the climate, but we are divided in our acceptance of the responsibility. Consequently, there are those who move for action in response to the degradation of the climate and those who oppose action. The opposing parties vie for the recognition of their cause and control of the political policies that will dictate the action, or reaction, to scientific data purported by climate scientists. However, since there are two opposing parties, there are also two opposing scientific viewpoints on the same matter. But the parties are not able to gain an advantage over each other through pure science. Policy-making is dictated not only by those in government, but also by the influence of the common people. As such, climate is a discussion for every individual; it should be a familiar topic brought up in everyday conversation, but it is not. In the past it has never seemed like a threatening issue, most people don't think about it deeply, The general public never receives the full story or all the correct information. They receive information through media coverage, newspapers, scientific journals, personal narratives, and the Internet, all with different intentions and opinions.

Once upon a time, narratives could be found at the heart of every ancient civilization. Narratives, or stories, embodied all aspects of life from spirituality and ethics to hunting tactics.

These narratives are key to “traditional knowledge” (Lejano, Tavares-Reager, and Berkes 61). Traditional knowledge is the knowledge passed down the generations within a community. In this case, it is traditional environmental knowledge. It is not a scientific approach to understanding, it is much more simple than that. Instead of data analysis and measurement, the narratives that drive traditional environmental knowledge encompass personal and tangible experiences of the change in climate. They tell a story with intricate details, characters, and a sequences of events, which create an understanding in the reader of the changes taking place while never once having to explicitly mention climate change. By relating experiences instead of raw data, it connects with the reader on a personal level. There is a large gap between the public’s understanding of climate change and scientists understanding of global warming. Scientists conduct studies and report information, therefore they have first hand knowledge. Conversely, the public only listens to the reports of scientists and the media, receiving knowledge second hand. But it does not have to be this way.

Like the narratives of ancient civilizations, the people of today have experiences of climate change that can be transformed into a story. There needs to be an integration of climate change discussion into daily life. Forums need to be held, conventions need to take place. When people begin to formulate their own experiences into a narrative they “engender personal commitment and action” (Lejano, Tavers-Reager, and Berkes 61). If people begin to relate their own stories of climate change to others, it can spur others to do the same creating a chain reaction of movement to a greater understanding of climate change in the general population. However, this is difficult to achieve when people take media reported science at face value.

When people begin to relate their experiences their perception of reality can still be skewed by media reported science.

Framing is the way in which key information, such as pieces of a story or data is emphasized (Ford and King 138). As such, it communicates why an issue is a problem and how it should be handled. Media framing is the most prominent way to communicate knowledge to the masses. The majority of people acquire their knowledge from social media, daily news, and the newspaper. Therefore, the media holds considerable influence over the beliefs and practices of the general public in relation to climate change (Ford and King 137). Consequently, depending on how the media is “framing” the information that they present; the people can sway in their responses to opinions of climate change.

James D. Ford and Diana King examined the framing of climate change in the media by studying and collecting data on the stage, type, and characteristics of adaptations to climate change. There are several stages to adaption; “statements of recognition” where media signified the need to adapt, “groundwork actions where there were documented preparatory actions being taken in response to climate change, and “adaption actions” where actual advances were made to adapt (Ford and King 139). Adaption types are categorized as ‘hard’ and ‘soft’. Hard adaptations are scientifically and technologically engineered advances in an attempt to reduce climate change. Soft adaptations are more abstract, they involve policy making and economical changes to accommodate for climate change. Adaptations can be characterized as reactive or anticipatory. They are either done as a reaction to some catastrophic event or are done in an attempt to anticipate further changes in the climate.

As Ford and King found, media coverage of climate change has skyrocketed since 1993. Consequently, the information produced by the media has led to a mass absence of “adaptation consciousness” (Ford and King 144) in the general public. This absence of adaptation consciousness and a misinformed public actually affects scientists, but how?

Contrarians are the first to shoot down the theory that global warming is an ever-present issue in existence. They do so by using the media to emphasize the uncertainty in the science behind climate change. This leads to a general consensus that climate change does not exist. This can psychologically affect scientists in several ways: ‘the stereotype threat’, ‘pluralistic ignorance’, and the ‘third person effect’. Contrarians question the validity of science, going so far as to consider some scientists to be exacerbating the issue, labeling them “alarmists” (Lewandowsky et al 4). Scientists react to this stereotype by downplaying the importance and validity of the findings, or by over emphasizing their uncertainty leading to the research being less credible (Lewandowsky et al 4).

Most scientists agree that global warming is primarily a cause of greenhouse gas emission (Lewandowsky et al 4). Conversely, the public believes, as a majority, that this is not the case. Seeing this, this scientists may also believe that the majority of their colleagues do not agree with them and may influenced to believe what they believe is the “prevailing social norm.” This is pluralistic ignorance. It can lead to the changing of scientist’s attitude in regards to climate change as Contrarians would like.

Scientists are as human as the rest of us. This means that although we might hope they are impervious to negative influences, they are not. Consequently, they are affected by subliminal messaging. Scientists especially may be susceptible. Studies show that individuals

may actually be more susceptible, when they believe that they are immune or unaffected by social influence (Lewandowsky et al 5). Therefore, if contrarians flood the media and public with uncertainty about climate change, it is possible that scientists may be affected and this in turn, will ultimately affect their research.

The discussion of climate change has become much more of a ‘hot topic’ since 1993. Pew Research Center found in global survey, that many nations now hold climate change as a “top threat” (Carle 2), unlike in 2007, when climate change and adaption was only a budding issue. However, since that time the North American continent as seen a steady increase in the discussion of global warming and actions need to be taken against it. James D. Ford and Diana King found in their study that since 1993 there have been 45,189 articles written about climate change or global warming (140). That is the number of articles written in select American and Canadian newspapers. Just think, if global warming has become such a prevalent topic in Northern America, what about the other parts of the world? Pew Research Center found that in contrast to the forty-five percent of Americans surveyed who believe global warming to be “very concern[ing]”, seventy-five percent of individuals in Brazil believe it to be very concerning. Conversely, Raul P. Lejano and his associates found that the majority of Americans do not find global warming to be an issue. It is stated that “most in the U.S. do not judge climate change to be personally worrisome or posing significant harm to themselves” (Lejano, Tavares-Reager, and Berkes 62). If that is the case, then while there is a significant amount of discussion about climate change, is there enough? Or is there a large discord between the knowledge of the public and that of the scientists who say that climate change is a prevalent issue?

There are many who believe that the public does not connect with the information gathered by scientists; that while scientific information related to the public is good and true, there is no personal connection driving them to action. These people champion a more personal take on the issue – climate narratives. Climate narratives are on the rise. In their work, “Climate and Narrative Environmental Knowledge in Everyday Life”, Raul P. Lejano and his associates push for the integration of climate change into our everyday lives by way of personal narratives. There is a large discord between the knowledge of the public and the knowledge of scientists about climate change. Stephen Lewandowsky and his co-writers found that, while ninety-seven percent of scientists agree that global warming is primarily caused by greenhouse gas emissions, the majority of the public is not convinced (Lewandowsky et al 4). Lejano and associates attribute this to scientific research presented in the form of reported facts. While the statements provided might be true, they do not connect with the reader; they are not relatable (Lejano, Tavares-Reager, and Berkes 68). Narratives, they state, will build personal resolve within each individual to move towards action against climate change. These narratives are to be shared at forums and conventions with other individuals. Scientists will be present, sharing their knowledge and experiences with the public in open discussion, not just discourses which are then translated by the media. This could negate another known issue - misinformation due to media framing and political activists.

James Ford and Diana King state that “the media provides a key arena through which discursive spaces over possible solutions are publically created, debated, and bounded (144). They then go on to implicate how the presentation of issues affects the public's understanding. The way in which the media “frames” the information presented by scientists will ultimately

affect how the public understands it. If the media emphasizes climate change as inconsequential, the public will follow. Lewandowsky and associates state that “people's attitudes are affected by what they perceive to be the prevailing social norm” (4). Therefore, it follows that scientists opinions and research may be affected by the influence of the public.

The public's influence on scientists is striking. We are accustomed to believing that scientists are infallible. However, that is not true. Scientists may be encouraged to downplay their research to compensate for antagonistic contrarians, or may be led to believe their research is less accepted than it is. Due to this inclination of scientists, the knowledge given to the media can be different than the reality; the media may then construe scientific data to further political endeavors. In the words of John Hockenberry, they're “playing games with the data”(Climate of Doubt). It can be seen that through the combination of the three scientific articles referenced in this paper, there is an endless cycle. Scientists make a discovery and report the raw information (Lejano, Tavares-Reager, and Berkes 67). The media construes the information provided through framing (Ford and King, 138). This misinformation then influences the general public whose opinions sway the opinions of scientists (Lewandowsky et al 4). The scientists then adapt observations to either fit the prevailing social norm or react to stereotypes (Lewandowsky et al 3-5). Then the cycle begins again. Scientists report information, which may not be one hundred percent accurate, leading to a poor public understanding, and so on. Any and all of this may be stopped at the source if scientists interact with the public directly instead of reporting to news agencies, giving people first hand knowledge and driving them to action in their daily lives.

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