Sustainability's Inconvenient Discourse

Christine Gilbert
University of Maine - Main, christine.gilbert@umit.maine.edu

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SUSTAINABILITY’S INCONVENIENT DISCOURSE

by

Christine M. Gilbert

A Thesis Submitted in Partial Fulfillment
of the Requirements for a Degree with Honors
(International Affairs)

The Honors College

University of Maine

May 2014

Advisory Committee:
Dr. Mark Haggerty, Rezendes Preceptor of Civic Engagement, Honors, Advisor
Dr. Melissa Ladenheim, Adjunct Assistant Professor, Honors
Dr. Stephanie Welcomer, Associate Dean, Maine Business School
Dr. Ebru Ulusoy, Assistant Professor of Marketing, Maine Business School
Dr. Hollie Smith, Department of Communication and Journalism
Abstract

“Sustainability” has been used to indicate certain values, market a way of life, and possesses a prominent role in a number of different disciplines, yet a commonly accepted definition doesn’t seem to exist. This thesis does not aim in any sense to define this elusive term, rather it examines the themes that inform discussions of sustainability. A number of particular thematic elements are used consistently across almost all of the discourses of sustainability: generational time frames, renewable resources, as well as the relationship between sustainability and economic development. Each unique discourse handles these themes in a specific way. What’s valuable is the construction of this concept in the public media. The New York Times and the Washington Post are two national newspapers publications known for setting the stage for relevant and new topics. Using the May 2006 premiere of Al Gore’s An Inconvenient Truth as a cognitive reference point, I will be probing the change, or lack there-of, in the discourse around sustainability. There is contested meaning-making surrounding sustainability in the public discourse, and by examining the rise and/or fall of the dominant themes in the editorials and op-eds of the New York Times and the Washington Post, it will help determine which themes construct the meaning of sustainability.
Dedication

This thesis is dedicated to my parents. Mama G and Papa G, I will never be able to thank you enough for the courage, support, love, and life you have given me, but this success is your success. I love you, Bean.
Acknowledgements

This thesis shouldn’t be “by: Christine Gilbert,” because without the help and support of those around me in my family, friends, and academic circles, this thesis would never have been realized. I want to specifically acknowledge Mark Haggerty: thesis advisor extraordinaire who never failed to make my thesis feel important; the incredible people at the Honors College, particularly Breana Bennett who came out of retirement to code for me and the Charlie Slavin Research Fund. Hollie Smith, who served as an incredible mentor to me for almost two years and the amazing researchers at the Sustainability Solutions Initiative, thank you! Also my family and in particular my grandfather Raymond Jean who, without his support of higher education and excellence, I may never have been able to attend the Honors College at Maine, his alma mater. And my friends, thank you for listening to my chaos and feeding me.

Wie immer, danke Schön.
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INTRODUCTION

When I was hired in the fall of 2012 as an undergraduate research assistant for the Sustainability Solutions Initiative (SSI) at the University of Maine, I felt proud but slightly hesitant to discuss my new position. When asked about what my responsibilities would include or the type of research I would be performing, I only thought about “sustainability” in relation to renewable resources and energy. Yet I was hired to work for a group of PhD candidates in communication and journalism. How did the humanities connect with the physical sciences that I had originally associated with “sustainability” and how could I explain the connection when I myself didn’t understand it? I have been exploring sustainability’s scope and interdisciplinary nature for almost two years and still do not have a concrete answer. Rather I have found that a strength of the concept of sustainability comes from malleability in its discourse. This malleability permits sustainability's themes to jump the restrictions of different disciplines, making it an applicable tool to analyze complex problems.

Sustainability, the lead word in the name of the twenty-three million dollar grant funding the Sustainability Solutions Initiative, helps to set the framework for the research being completed by the PhD students, faculty and research assistants. The problems being dealt with encompass many methodologies and bring different academic departments to the same table. The title “sustainability” mandated that solutions be holistic, with long-term outlooks, and focused on the interconnectedness of each problems’ stakeholders. “Sustainable solutions” were places the researchers wanted to reach, but again, the flexibility of this notion of sustainability created dynamic conversations about what the solutions looked like and how they could be achieved.
Additionally, outside this realm of academia, the public is also grappling to understand sustainability. Sustainability might have power in owning a flexible discourse, but it can also function as a weakness with no clear “owner” of discourse. Sustainability has become a buzzword incorporated into environmental discourses, but also university structures, businesses, and even entertainment industries. It is absurd to think that all of these different interests are using sustainability with a similar definition in mind. And here it is that sustainability can lose some of its power because it has no “meaning”. It also stands to reason that these different enterprises have much to gain from having their definition of sustainability accepted broadly in this struggle.

One way to illustrate this schism is to compare the ways sustainability can be “understood”. Business sustainability, such as might be used by any major corporation that is interested in promoting social responsibility, but concurrently interested in continuing profits over time, would be more likely to adhere to the following understanding of sustainability:

Sustainable development supporters prefer to not discuss absolute limits to growth but limitations imposed by the present-state of technology and social organization on environmental resources…Coupled with this optimism is the persistent belief that environmental problems are caused by poverty and that economic growth…are helping to solve this problem (Kopnina, 52-53).

It can be argued that this viewpoint sees no future without business and without constant economic growth. Any stockholder, manager, or member of the “C-club1” of a corporation stands to benefit immensely from this construction of sustainability. In

1 “C-Club” denotes the top managers of any corporation such as CEO, CFO, or COO.
opposition to this notion of sustainability are people, groups, and organizations that feel there is something fundamentally askew with the capitalist, industrialist system that must be fundamentally restructured in order to reach sustainability.

Biodiversity protection is not necessarily contingent with social and economic interests, such as deriving medicines from wild plants, and may be inadequate in addressing biodiversity loss since not all species are ‘required’ or ‘necessary’ for survival of human species. Besides, growing human population and consumption demands are pressuring non-human species into increasingly instrumental and subservient categories of resources, rather than recognizing their intrinsic value (Kopnina, 54).

Humans are given no special designation in this quote and even the continuation of humans into the future is not given weight. And yet that exact notion is such a crucial aspect of the first example of sustainability given (Kopnina, 52-53). These two quotations help illustrate just how distinct these notions of the “same” concept can be and how “meaning” is being contested.

There is current competition in society’s discourse for actualizing the word “sustainability”. The eventual meaning will be linked to the themes that are present in conversation. To make more sense of this elusive concept I will examine the themes present in the public discourse to try and uncover which construction is dominant. To accomplish this goal, I will be analyzing editorials and op-eds from the *New York Times* and the *Washington Post*.

The focus on the themes will allow for an indirect look at a topic whose meaning is still being contested. In order to ensure that the themes being analyzed are indeed
related to sustainability, a literature review of sustainability articles, books, and other related research, will be summarized to create a coding frame.

I would love to search for the meaning of sustainability; to scour texts and books and novels and finally discover the true and complete meaning of the word, but I don’t think that this hunt would be successful. Sustainability is a discourse, it’s a conversation between themes, between phrases, between meanings, and what I want to uncover are themes dominating sustainability’s discussion.

The meanings of words change over time; evolution of meaning is particularly important for a contested term such as sustainability. If sustainability’s meaning is being negotiated through the presence of different themes then external events occurring could theoretically impact the conversation. The May 2006 release of Al Gore’s An Inconvenient Truth (AIT) could be part of a change in the meaning making around sustainability. A link between AIT and sustainability exists in the themes seen both in sustainability literature and the film. A time frame of 24 months prior to May 2006 and 24 months after will be examined.

The creation of sustainability’s meaning is not a neutral issue. There are vested groups that are interested in the definition of sustainability. There is power in deciding what this new buzzword “sustainability” really represents.

SUSTAINABILITY LITERATURE REVIEW

Sustainability as a normative term made its premiere on a global scale in 1987 in the United Nations’ World Commission on Environment and Development (Liu, 1413). Out of the Brundtland Commission came Our Common Future which featured a
definition of sustainability that has been quoted and referred to since: “…Humanity has the ability to make development sustainable – to ensure that it meets the needs of the present without compromising the ability of future generations to meet their needs…” (Liu, 1413). In the simplest terms it seems that sustainability here is referring to the indefinite survival of humans on the planet Earth with the same opportunities in the future that exist today. The horizon of sustainability is focused on the world to come, beyond the present. Yet authors Barrett and Odum point out that while this widely accepted view of sustainability is attractive, “…(the) definition is so vague that it would be impossible to quantify or implement…” (Liu, 1413).

The notion that sustainability is ambiguously defined contributes to the richness of the discussion and leads to the suggestion of sustainability as a “journey metaphor” (Milne, 802). The notion of a journey implies a number of different paths that may be taken and a destination reached: “…In some instances, sustainability is considered to imply the need for the radical reorganization and restructuring of society along ecological principles, in other instances it is considered in terms of incremental reforms to the status quo…” (Milne, 802).

There are also a number of different phenomena that the word, phrase, or concept of sustainability has been applied to, including but not limited to: environmental sustainability, urban sustainability, business sustainability, sustainable supply chain systems, sustainable buildings, renewable and sustainable energy, social sustainability, sustainable development, sustainable agriculture, and so on (Liu, 1412-1413). Is it advantageous or even possible to have a particular understanding of sustainability that fits into every scenario where it’s applied?
Some authors argue that two distinct paradigms of sustainability have emerged since 1987, with respective themes that remain fairly consistent (Milne, 803). Commonly referred to as “weak sustainability” or “business case sustainability” the first framework of sustainability takes place within the current capitalist system and advocates incremental changes in order for sustainability to be reached (Milne, 804). Some also propose that this model of sustainability does not put economic gains at risk because “…as long as the diminishing natural capital stocks are being replaced by gains in the man-made stock, total capacity will stay constant and the current level of consumption can continue…” (Liu, 1418). The economy and the environment are not juxtaposed as they are in the macro framework of sustainability that has been presented. On the other hand, “strong sustainability” is a more radical and aggressive model that proposes that the system, meaning the industrial capitalist society that we exist in currently, needs to be changed at a very elementary level (Milne, 804). The language linked to this second definition is more concerned with limits, the Earth as a finite system and perhaps most importantly, man-made capital and natural capital being mutually exclusive resources or counts (Liu, 1418). Having an increase in the gross domestic product (GDP) of a country would not offset a decline in fresh water resources available in this latter model; it would however in the former.

The importance of renewable resources serves as another example of the dichotomy within sustainability literature. For strong sustainability renewable resources are important not because one day other energy sources (particularly fossil fuels) will expire, but because renewable resources do not contribute to ecological harm or do so minimally. Weak sustainability on the other hand, sees renewable resources as important
because they reduce the impact of climate change on humans; such as smog causing asthma, or increased flooding interfering with business as usual (Killingsworth, 240).

These distinctions make it clear that sustainability exists as a contested discourse of themes rather than a word with an agreed upon meaning. Because these two conversations about sustainability are different at a broad level, it seems logical to follow that the themes used to discuss the two paradigms would also be different. For example, while “strong sustainability” advocates humans living within the biological constructs of their immediate environment, “weak sustainability” talks about the mutual harmony of economic growth and environmental protection through technological advancement (Liu, 1418).

“…Technology is seen as both necessary to scientific and economic progress and as the solution to managing environmental risks…” is a weak sustainability defense that is a very different theme from the discussion of ethics and morality that is more prevalent of a dialogue within strong sustainability (Milne, 806). “…Advocates of strong sustainability tend to be more critically oriented and base their work on a reading of deep ecology, environmental justice and politics…” helps explain how the conversation within strong sustainability has a more intense focus on concepts of justice as based in ecological literature (Milne, 807).

These two frames also help support the idea of sustainability as a discourse or journey of contested meaning, because it is clear that sustainability, as a concept is still ambiguous about its relation to business, growth, progress, and development (Milne, 802-803). A term often used interchangeably with sustainability is sustainable development (Milne, 817). Having first generated attention around the same time as sustainability in
the 1980s, sustainable development is even more inclusive than sustainability, promising the possibility of having a strong economy locally, nationally, and globally at the same time as environmental health (Dryzek, 145-147). Rather than using sustainability and sustainable development as synonymous terms, I argue that sustainable development is more appropriately placed under the broader concept of “weak sustainability” because as described earlier, weak sustainability believes in the theme of “we can have it all” in terms of positive economic growth and environmental vigor. Sustainable development is even more aggressive about this coexistence.

Sustainable development uses very positive language embedded deeply within the notions of “…a vision of simultaneous and mutually reinforcing pursuit of economic growth, environmental improvement, population stabilization, peace, and global equality, which could be maintained in the long term…” (Dryzek, 151). Drastic change isn’t necessary, rather a manipulation of the current system with incredible prosperity to follow. Environmental problems such as acid rain, extreme weather patterns, or rate of extinction are opportunities; challenges humans will overcome and be able to learn from (Harris, 703). Sustainable development also often focuses on the social benefits of strong economic growth such as a just redistribution of wealth (Dryzek, 156). Namely in order for the lifestyle of all humans to improve, economies need to improve thereby spreading the wealth.

Strong sustainability instead emphasizes just allocation of resources over time “…and a scale of economic activity relative to ecological life support systems…” (Milne, 805, 807). Strong sustainability’s vision of development is not at all akin to sustainable development’s outlook of continued economic development in the current model of
profits over losses. Strong sustainability proponents or “deep ecologists” feel that these ideas of growth and progress are at the very core of the problem; they want and need a movement towards “low carbon, low consumption” (Grist, 796). Strong sustainability would create a world filled with ecological communities designed to meet the environmental limits of the area first, and then human needs (Grist, 795).

Another contested issue within the discourse around sustainability is the notion of value in the environment: is there inherent worth in nature? Termed “anthropocentric” or opposing that “biocentric,” weak sustainability and strong sustainability respectively, have very different outlooks about the environment as a broad concept. Weak sustainability, using an “anthropocentric” vision, sees negative environmental impacts as important because they impact humans and their way of life. In an article focusing on sustainable development and renewable resources in Ontario, author Morgan Harper illustrates the anthropocentric view clearly: “…it can be concluded that the concept entails the adoption of people-centered initiatives in order to improve and expand to realize potentialities…” (Harper, 45). Nature is for humans to use and it is through anthropocentrically valuable assets that nature gleans its importance. Strong sustainability however, views the environment as important because of nature’s innate worth. Environmental problems need to be solved because humans have negatively impacted nature and this shouldn’t be allowed to continue into the future. Humans must live within the boundaries set by nature, not be the masters of the environment (Grist, 786). This viewpoint is more radical in the sense that the justification is rooted in ecological principles, with no regard for humans. Sustainability is striving for changes to come about, but the path to be taken is quite indistinct.
Weak sustainability and sustainable development put a lot of pressure on the government and the economic system to help facilitate this transition.

The discourse identified causes and effects, and translated them into responsibilities by quantifying them and referring them to geopolitical units… exposes how the responsibility to jump-start movement towards a sustainable future has an innate link to the political system who have the power to create laws and most important public policies (Weingart, 268).

Another prominent strategy adopted by the incremental methodologists (sustainable development/weak sustainability) is the use and promotion of economic incentives. This has led to excitement because economic benefits to assist in the transition to a more “sustainable” reality is “…good for both business and the environment…” (Milne, 804). Economic incentives can come in a myriad of different forms including but not limited to: carbon-trading between businesses, tax credits, reduction in private taxes, subsidies, and federal grants. These conceptualizations of sustainability with “…technological and market-based solutions…,” puts the power in the hands of the experts: elected officials and politicians, as well as business corporations and scientists (Grist, 786). It is clear that the general consensus is in order to get results towards a more sustainable future, changes need to occur from the standard top-down hierarchical method. However, one caveat is that many weak sustainability or sustainable development archetypes do in fact support policy movements from the federal government to the state level.

This is quite distinct from strong sustainability’s grounded approach that puts the focus on grass-roots movements and networks rather than hierarchies: “…radical approaches incorporate calls for shifts in corporate or national wealth and power, social
or industrial organizations…” (Grist, 787). Strong sustainability’s solution is in no way incremental but immediate and fundamentally new. Another contested potential solution taken up by strong sustainability, but not by weak sustainability, is the notion that the human population must in fact be limited to achieve true sustainability (Grist, 793).

“…This strand sees existing and looming crises from the over-exploitation of resources…over development, over consumption, and over population…” (Milne, 804).

It is clear that these two models of sustainability differ dramatically in the “journey” they see ending in sustainability. However, it is exciting to note that during the literature review, a number of individual themes continued to appear in both models of sustainability. The interpretation or how dramatically the particular themes should be adhered to differs depending on the archetype of sustainability, but the theme itself appears fairly regularly. These themes include the recommendation that power be moved down the hierarchy, particularly from federal to state level or federal to local control. In weak sustainability, the power still rests with elected officials, but those who have more insight into the nature of that location. And in strong sustainability, the power moves down the hierarchy with the intention that eventually the power will reside with those who live “…geographically and temporally specific…” (Grist, 787). The next theme that appears to be “trans-sustainable” to the concept of sustainability is the importance of renewable resources. Both weak and strong sustainability incorporate the need for renewable resources into their discourses, however weak sustainability often leaves room for nonrenewable resources (such as fossil fuels), while strong sustainability sees renewable resources as exclusive (Milne, 805; Liu). The final two themes that appear to be consistent across weak and strong conceptualizations of sustainability are the
sacrifices that need to be made to achieve a sustainable future: either economic or non-economic sacrifices. As mentioned before, weak sustainability believes that incremental changes will, over the long-term, lead to sustainability: “…Is with sacrifices in the here and now: with smaller cars, bigger investments in new energy sources, higher electricity bills that will inevitably result once we put a price on carbon…” (Hoffman, 16). These suggestions indicate economic and non-economic sacrifices that need to occur, but really help illustrate that the speed at which these changes will occur is slow and not radical. Strong sustainability on the other hand also sees sacrifices needing to take place, but the scale is much larger and the speed is much more immediate than the previous model. “…The radical perspective uses this to advocate far more fundamental shifts… (Grist, 793); in this sentence the “this” indicates the strong sustainability view of limits (limits are an exclusively strong sustainability theme). An example of these kinds of limits would be Bill McKibben’s “350.org” which stresses the limit of the Earth’s atmosphere to acclimate to any more than 350 parts per million of carbon dioxide concentration (Fischer).

Again the focus of this thesis is not to find the definition of sustainability, but rather to use the themes present in the discourse. They could be linked through weak sustainability, strong sustainability or some combination thereof and to see how a period of four years and a single event changed or didn’t change this rich thematic discourse. By taking the themes identified above such as hierarchies of power or economic growth and tracking their rise or fall, the concept of sustainability will not be defined, but outlined in an attempt to make sense of this dynamic and powerful concept. “…Curran states that sustainability is a destination that we aspire to reach with the selection of the sustainable
pathways that we choose as we proceed along the journey…” (Liu, 1413).
Sustainability’s definition or even the clear outline of a concept is still being contested.
The themes that will be used and identified in the newspaper articles will be clearly identified in the methods section and can be found in Appendix A, but the themes almost exclusively draw from this sustainability chapter.

DISCOURSE ANALYSIS REVIEW

From the title of this thesis, it is clear that the word “discourse” is central. Discourse analysis has a deep and well-researched literature and it’s important to acknowledge that this thesis will only be able to utilize this pedagogy to a limited degree. During the past fifteen years there has been a dramatic increase in the number of academic disciplines that use discourse analysis as a tool to critically approach “narratives” (Antaki, 2). As illustrated in the previous chapter, sustainability seems to rarely have a consistent characterization across time or even within publications. Discourse analysis most appropriately fits here then, because what’s important are not the words themselves, but rather the underlying themes (Antaki, 13).

“…Discourse analysis can make more explicit the classical approaches to “content analysis…” (van Dijk, 20). A benefit of using discourse analysis stems from the ability to focus and examine different sized groupings of words. Called “units”, analysis can either be focused on a single word or on whole sentences, even going so far as to examine an entire paragraph, looking for a basic message or latent theme (van Dijk, 24).

Discourse analysis specialist Teun A. van Dijk helps emphasize other strengths of discourse analysis over content analysis, particularly in relation to the goals of this thesis:
“…while content analysis is primarily based on observable, countable data, such as words, phrases, sentences, or stylistic features, a discourse analysis will also pay attention to underlying semantic structures and make explicit implications, presuppositions, connections, strategies, etc…” (van Dijk, 27). From the themes that are exposed through the words in the newspaper articles, a broader discourse around sustainability can be examined. A more focused explanation of the application of discourse analysis in this thesis will be explored in the methods section.

In *The Politics of the Earth* by John S. Dryzek, the center of attention is almost entirely on environmental discourses. In the first chapter of the book, he illustrates a commonality among environmental concepts (Dryzek, 3-8). “…Environmental issues do not present themselves in well-defined boxes labeled radiation, national parks…Instead, they are interconnected in all kinds of ways…” (Dryzek, 9). Sustainability is explored as one of these discourses because so much of sustainability’s nature is contested (Dryzek). In addition, the diverse range of methods suggested in order to achieve sustainability are often contradictory (Liu, 1412-1413). To search for a definition would be shallow at best because it eliminates a less direct approach (such as discourse analysis) that could focus on individual underlying themes. “…Discourses construct meanings and relationships, helping define common sense and legitimate knowledge…” (Dryzek, 9).

Admittedly, the discourse analysis in this thesis is not the focus, but rather the lens through which the themes of sustainability will be evaluated. All of the discourse justifications above help foreground the reasoning behind being able to look for themes beneath the words that merely appear on the pages. It also needs to be mentioned that there are weaknesses to this type of analysis such as the inherent biases that the writer
and the coder bring to the table. Objectivity within coding is a necessary achievement, but cannot always be quantitatively guaranteed with this type of qualitative method. Discourse analysis is not an exclusively “grounded” method because the themes are drawn from sustainability literature not any one particular text. Additionally the context of the original article is not taken into account because sentences are the units being analyzed (van Dijk, 29).

Yet despite these shortcomings, discourse analysis is the strongest method of analysis for what this thesis is aiming to uncover. Discourse analysis rather than content analysis or another method of analysis allows the researcher to search for the “latent” themes that are often not meant to be seen directly or understood to be present.

What are the themes that are present in the climate change and global warming debate that additionally construct sustainability? Did these themes change or not following the time period in which An Inconvenient Truth was released? These questions require a more implicit approach because the creation of sustainability has high stakes:

There is…considerable evidence in academic, professional, and business literature that sustainability is a contested and elusive concept with which to engage…And then the potential benefits and adverse consequences of the adoption of this metaphor (Milne, 802, 810).

**NEWSPAPER EDITORIALS and OP-EDS**

As rich as analyzing sustainability’s discourse is at a micro-level, for example within a certain set of people, the conversation can be additionally enhanced by including a broader public. The newspaper industry in the United States has a number of leaders on both sides of the political. By reading articles from the New York Times and the
*Washington Post*, a broader opinion can be gleaned or the contrasts between the two publications can become visible (Nisbet, 18-19).

The *New York Times* and the *Washington Post* are both newspapers with strong national readership and are heavy targets of media lobbying by various actors who are striving to promote their viewpoints (Nisbet, 19). They also serve as elite newspapers. Author Matthew C. Nisbet notes the strong reasoning behind his own selection of these newspapers in his analysis of the framing of plant biotechnology in the United States: “…This choice to focus on the elite national newspapers of record complements what other media analysts have observed: stories tend to spread vertically within the news hierarchy…” (Nisbet, 18-19). This seems to reason that if sustainability’s contested meaning is being talked about at this national level, the relevance is timely and the conversation holds within it the largest number of voices. To see themes of sustainability in elite newspapers indicates the high stakes in understanding this elusive concept.

The decision to focus exclusively on editorials from these two newspapers is consistent with previous research which focused on similar themes (Carvalho, Maguire, A. Readers, Hoffman, etc). With editorials come a number of benefits: editorials are more likely to have explicit opinions expressed, which makes identifying themes more iterative and grounded (Rupar, 595). Also linked with editorials is the voice of the general public, rather than the elites (Hoffman, 10). “…As the official stance of the publication, always printed on the same page, in the same place and in the same graphic form, the editorial is ‘one of the widest circulated opinion discourses of society’…” (Rupar, 599). While a news article has the (hopefully) inherent goal of being as objective as possible, editorials evaluate, or more eloquently: “…while news informs, editorials assess…” (Rupar, 599).
By focusing on the editorials instead of news articles, it becomes more likely that the societal discourse around sustainability will be more identifiable in both the *New York Times* and the *Washington Post*. The social construction of sustainability is occurring in these very editorials!

An excellent example of a similar study that focused on the meaning behind the words rather than the words themselves is an article published in *Journal of Communication Inquiry* that took a critical look at the representation of Iran’s Nuclear Program in three elite newspapers (Izadi, 140). Using a parallel approach including using editorials from the *Washington Post* and the *New York Times*, the authors attempted to analyze the framing of a contested reality.

While the access to these newspaper editorials is crucial for this research, the number of articles catalogued is immense. In order to ensure a less trivial analysis of the themes surrounding sustainability, the time span needed to be limited. Sustainability seems to have an almost inherent link with the environment particularly in the sense that humans need an environment literally, in order to survive indefinitely (Milne). A pertinent event particularly in relation to our thinking about greenhouse gases and subsequent climate change, is the 2006 release of Al Gore’s *An Inconvenient Truth* (AIT, Nolan, 2-3). AIT has had a fairly wide impact on the public in addition to garnering academic and scholastic recognition (Nolan, 643). AIT remains a common thread within the climate change debate and while the effects of its viewing have been broadly studied, its effects on other environmental discourses (such as sustainability) have been thus far ignored (Smith, Holt, Nolan).
Al Gore’s intention in producing the film focused on presenting the knowledge and inevitability of climate change and its effects in a way relatable for the broader audience rather than the scientific community or elite politicians (Nolan, 644-645). Topics in the film include in-depth analysis of carbon dioxide levels in the atmosphere, a discussion of the value of 350 parts per million (a limit we crossed after the film’s release), as well as suggestions about how to reduce each viewers’ individual carbon footprint (Gore, 2006). Research has shown that watching AIT leads to an increase in concern related to global warming, a higher likelihood of action, as well as specifically a fifty-percent relative increase in the purchase of voluntary carbon offsets in zip codes within a ten-mile radius of a theater where the film featured (Nolan, 654-655, Jacobsen, 2).

It is clear, that AIT made a real and quantitative impact, at least immediately regarding conceptions and knowledge of climate change. But did these ripples affect the discourse of sustainability in any way? A number of themes addressed in AIT directly relate to sustainability such as time frames, implementation of economic incentives and policy initiatives.

It is important to note that while AIT had a large influence on the general public (see above for sources), the primary reason for selecting AIT is that it served as a convenient focusing point because of its direct link to many themes of sustainability. But once again, this thesis is not looking for whether AIT managed to change the sustainability conversation to Al Gore’s model of sustainability, but rather had any impact on the meaning making around sustainability.
By using AIT as a cognitive reference point, the conversation before and after AIT might theoretically differ. A broad frame of twenty-four months prior to the May 2006 release and twenty-four months after was deemed enough time to sufficiently analyze the thematic discourse both pre and post.

In order to get the appropriate articles to code, the search terms that were used were “global warming” or “climate change,” and “energy.” It is fundamental to identify why these search terms were used instead of “sustainability” or “sustainable” or “sustainable development.”

There are two direct reasons: one being that upon an initial search for articles containing the aforementioned three different sustainable delineations, the hits were articles that used sustainability as a meaningless buzz-word rather than having any focus on relevant themes. For example in a broad search of the newspaper archives using “sustainability” as a key-term, the articles that came up as “hits” used sustainability in an extremely vague sense. The articles ranged from the sustainability of granite floors vs. wood floors or even types of shoes. While these articles might elsewhere be deemed relevant, for the sake of this thesis, the attention to themes of sustainability needed to have more merit. Second, by using sustainable as a search term, what we would be analyzing would be the understanding of sustainability that the particular author of that editorial adheres to. And as expressed in the sustainability literature chapter, there seems to be an absence of any concrete conceptualization. There are rather common themes that are framed in different ways depending on the vision of sustainability being used.

By using search terms that are more relevant to AIT and more focused by using “energy” as a fellow search term, the analysis can be directly focused not on how climate
change or global warming are discussed, but how certain themes of sustainability appear in this related conversation. Also if they increase or decrease across time, particularly before and after May of 2006. The search terms are narrowing methods, and the editorials will be examined to see how themes related to sustainability construct meaning in these articles.

The analysis must not be on any particular author’s definition of sustainability. An indirect approach is necessitated by the contested creation of the ideology of sustainability.

METHODS

METHOD FRAMEWORK

The *New York Times* and the *Washington Post* are both daily newspapers with vast national and international readership and are among the nation’s largest media outlets (Izadi, 148). Through the University of Maine’s Fogler Library database access, most of the articles published since the beginning of the 20th century are available electronically. Two different databases were used to collect the articles: The Washington Post Proquest Website and Proquest Newstand. The keywords that were searched were “global warming” or “climate change” and “energy”; this remained consistent across newspapers, databases, and time periods. Both websites had the ability to refine the search to only include editorials or op-eds and this option was chosen. The searches were run in annual time frames, so for example the search for the year 2004 was done from 5/1/2004 – 12/31/2004\(^2\) and the search for year 2006 was 1/1/2006 – 1/31/2006. All of the hits were saved in folders labeled as such.

\(^2\) May of 2004 is 24 months prior to the May 2006 release of *An Inconvenient Truth* and is the beginning timeframe for the articles used in this thesis.
A total of 236 articles were available for coding from the *New York Times* and 149 articles from the *Washington Post*, making for a total of 385 editorials that met the search criteria laid out above. Because of the duration of the time available for this thesis, 87 articles will be critically analyzed and thematically coded (23%).

Thematic coding was done using an iterative process. A codebook was created that drew themes directly from the sustainability literature review chapter. During coding however, it was discovered that a number of themes that were not directly included in the sustainability review continued to reappear. These themes, while not inherently related to sustainability, had some sort of reoccurring role within the broader conversation (Welcomer). By keeping track of these “emergent” themes, it was thought that the overall results might be further enhanced (Miles, Strauss)\(^3\).

Qualitative data analysis has often received attention in a negative light for what quantitative scientists term “(the) anything goes” model (Antaki, 3). In order to ensure that this isn’t the case, there were two coders (one being myself) that coded ten percent of the total articles and strived to achieve a reliability rating of at least 70%. The codebook that was generated before was edited during coding in order to generate the most representative and jointly accepted thematic framework of sustainability.

For this thesis the units that will be coded as representing different themes will be sentences. Additionally, any one sentence may be coded for any number of different themes.

As mentioned before, the search terms were “global warming,” “climate change,” and “energy” *not* any delineation of sustainability. The themes found in the sustainability

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\(^3\) These emergent themes, their keywords, and broad definitions can be found in Appendix A. They are denoted by their categorization under “Emergent Themes” and their symbols being “EM”. 
literature review are the focus, not the use of the term sustainability in the context of the selected articles.

**QUANTITATIVE METHODS**

As mentioned previously, 87 articles were to be selected out of the 385 available. Based on the methodology described by the Media Management Center at Northwestern University, Sundays are described as notable newspaper days; particularly in the number of readers on Sundays and the changes in writing style. “…Sunday newspapers are more diverse than weekday newspapers…” and additionally “…The emphasis on narrative storytelling, rather than a straight-news approach is more pronounced on Sundays…” (Readers, 4-6). To find the social discourse surrounding sustainability, it seemed that Sundays would hold the most promise. The language would be stronger, more diverse, and could be more passionate, particularly in editorials and op-eds. Another day had to be selected to code articles from because of an unequal distribution from the *New York Times* and *Washington Post* Sunday articles. Tuesday was selected primarily because the *New York Times* publishes a science section on Tuesdays that is well received and in order to be consistent, it was determined that Tuesdays from the *Washington Post* would also be selected (Nisbet, 19, Milne, Strauss). The summarization for both the *New York Times* and the *Washington Post* was 99 Sunday articles and 45 from Tuesdays (Nisbet, 19).

Broken down further, the *Times* had 76 articles published on Sunday and 34 on Tuesday and the *Post* had a total of 23 from Sunday and 11 from Tuesday. To try and achieve a more well rounded spread of articles, the 23 articles from Sunday from the *Post* and the 11 from Tuesday would all be coded (n=34). Then to determine the number of articles from the *Times* the original distribution was taken into account. 61% of the total
articles were from the *Times*, while 39% were from the *Post*. Having 34 articles from the *Post* is 39% of the total 87 to be closely coded, equal in percentage to the original breakdown of articles collected. So there needed to be 53 total articles to be coded from the *Times* in order for 61% of the total 87 to be from this paper. 36 were to come from the *Times*’ Sunday articles (36 Sunday articles/53 total NYT articles is 68%) and 17 from Tuesday (17 Tuesday articles/53 total NYT articles is 32%). These percentages mirror the percentages from the *Post* Sunday and Tuesday distribution (23 Sunday articles/34 total WP articles is 68% and 11 Tuesday articles/34 total WP articles is 32%). Overall, it was important that the spread of articles coded remained *true* to the original layout of articles as distributed between the *Times* and the *Post*.

For the *New York Times* there were more hits for articles than the 36 or 17 that needed to be coded. A random number generator (exact website can be found in the Works Cited) was used to ensure variability within the articles selected. A number was randomly generated using this site and every other article beginning at that point was selected to be coded.

Intercoder reliability was done prior to the majority of the coding between myself and Breana Bennett (Milne, Strauss). At least 10% of the 87 articles (8.7 rounded to 9) needed to be coded between us and achieve a goal of at least 70% reliability. 12 articles total were calculated into the rating and the percent was achieved by taking the number of codes that were the same between both of the coders divided by the total number of codes. Averaging around 70% for most articles, the overall intercoder reliability percent was 69.4% (Milne, Strauss). The remainder of the articles were coded by myself using
the final codebook that had been achieved at the last session of intercoder reliability
coding. This codebook can be found in Appendix A.

RESULTS

This chapter will illustrate how the thematic codebook was reflected in the 87
articles that were closely analyzed. Because of the amount of data collected (87 articles
with 43 potential codes) it is certainly difficult to include all the results of this study;
however, in this chapter the data presented will be focused on six dominant themes.
These six themes will be followed through both the New York Times and Washington
Post and analyzed to reflect the changes (or lack there of) during the time period around
the release of An Inconv

genient Truth (AIT) in May of 2006. Additional graphs will also
be shown to help portray interesting findings not represented by the six aforementioned
codes. To begin the chapter, large-scale results will be summarized in order to set the
stage for further analysis.

There were 43 unique codes that any sentence could be deemed to be
representing. The 87 articles analyzed produced 934 code occurrences. These 43
individual codes mapped back into 8 mega-theme categories defined as: power/hierarchy,
economics, societal impact, role of nature, resources, human population, limits, and
emergent themes (see appendix A for the entire thematic codebook). Graph 1 shows these
mega-themes and on average, how many times you should expect to see a code in any
one article. The occurrences have also been broken down into the New York Times and
Washington Post. To find the number of times, on average, you should find a code
talking about “power or hierarchy” the total number of occurrences in the New York
Times of this theme (212), divided by the number of articles coded from that paper (53): equals an average of 4 mentions of this type of code per article. By comparing the eight macro-themes and on average, how many times you should see a code appear in one article, it shows most broadly, the frames we are utilizing to construct sustainability.

Graph 1

Graph 1 illustrates that the most common framework or theme used when talking about sustainability for the New York Times and Washington Post is “power and/or hierarchy”. This could mean talking about how the government needs to implement a new policy to control greenhouse gases from nonrenewable resources, or speaking to the failures of the federal government and proposing a new system. On average, one should find four mentions of that frame in a New York Times article, while the Washington Post has it occur on average, 2.647 times. The second most common framework to use for the New York Times is nature, but for the Washington Post, it is economics. However, the third most common thematic structure for both newspapers is resources. Again, Graph 1 is looking at the codes in the most aggregated form: the mega-themes they map back into.
This graph doesn’t directly speak to distinctions of weak or strong sustainability; that will be focused on in the latter graphs.

It is important to note that the number of incidences doesn’t mean 934 different sentences were coded, because any sentence could be coded multiple times for different themes. The 934 coded themes divided by the 87 articles in total indicates that on average, every one article had 11 coded themes. For the 53 New York Times articles there were 638 code instances, which means on average there were 12 codes per article (12.04). For the Washington Post there were 34 articles and 296 code occurrences: an average of 9 codes per article (8.706).

Of the 43 thematic codes, only 34 ever actually occur in an article. Appendix B shows the complete breakdown of the appearance of codes between newspapers and before and after May of 2006. The codes never mentioned include: “P3” or a complete change of hierarchy; “E4B” or the industrial system is bad; “S5A” and “S5B” which suggest that problems are either opportunities to benefit from or challenges that require change, respectively; “Po1” or “Po2” which represent either using population as a way to achieve sustainability or discrediting the notion that this strategy would be effective, respectively; “L1” which views the Earth as a “spaceship”; “L3” which directly states that human innovation will never fail; and finally “EM1” which suggests that turning to prayer or faith is a way to move forward.

From the 43 codes available in the codebook, minus the five from the emergent themes category\(^4\), 23 codes out of the 38 available or 61% of codes relate back to the model of weak sustainability or business sustainability. While it may seem simpler to

\(^4\) The emergent themes category was removed because these themes did not draw from sustainability literature. Rather they were a result of an iterative process that saw these codes appear in a number of the newspaper articles. But they might not directly have an influence on sustainability.
then conclude that the remaining 16 codes of the 38 would link back to strong sustainability or deep ecology, this isn’t the case. Part of the malleability of sustainability means that some themes relevant in weak sustainability are also important in strong sustainability. As previously described in the sustainability literature review, there appear to be at least four themes that jump the weak vs. strong sustainability divide. These “trans-sustainable” themes include: the need for less hierarchical decision-making (P2); the need for renewable resources (R4); and the reality of economic or non-economic sacrifices (E5A and E5B, respectively). These codes will be examined in Graph 5 but constitute 4 codes out of the 38 possible: 11%. 21 or 55% of the 38 sustainability codes draw from strong sustainability.

The six most common codes overall across both the New York Times and Washington Post and all time periods (5/1/2004 – 5/1/2008): “P5” or expert implementation of policies (n=164, 17.6% of total codes seen); “P2” or the need for a less hierarchical system of power (n=92, 9.9%); “N2” or value of nature is linked to humans (n=91, 9.7%); “E1” or economic incentives or putting faith in the market (n=80, 8.6%); “N1” or the inherent value of nature (n=77, 8.2%); and finally “R4” or the call for renewable resources (n=67, 7.2%). The macro-themes these codes generate in the discourse include the role of power/hierarchy (P5,P2), the value of nature (N2, N1), the function of economics (E1), and the role of energy resources (R4). These themes appear to form the dominant framework most broadly for sustainability’s creation of meaning.

Graph 2 below, portrays these top six codes according to per article occurrence by newspaper. In order to give a comparison, the amounts for both the New York Times and Washington Post are given. However, interestingly enough the top six codes for both
newspapers were in fact the same. The numbers shown below were calculated by taking the number of occurrences per newspaper and dividing them by the number of articles respective to that newspaper. For example, the code related to supporting a less hierarchical model of decision-making (P2) appeared 68 times in the New York Times across 53 total articles. This means that on average, in one article from the New York Times we should find 1.28 instances of that particular code. The Washington Post had 24 instances across 34 articles using the same code (P2): an article average of .70 instances of this code. The six codes were chosen for the New York Times, because the next highest average per article occurrence was .15 lower than “E1” or economic incentives which was the lowest average for the New York Times. Similarly, for the Washington Post, the next highest average not shown on the graph had an average of .441 mentions per article.

Graph 2

Of the six codes shown above only one code, economic incentives (E1) saw the Washington Post having a more prevalent per article average than the New York Times;
.679 for the New York Times and 1.294 for the Washington Post. The remaining five codes had averages that were higher for the New York Times than the Washington Post. The largest difference between the newspapers per article occurrence was the code that suggests that nature’s value comes from human interaction (N2) with a difference of .9. Three of the codes shown fit the framework consistent with weak sustainability (P5, E1, and N2), one code maps back into strong sustainability (N1) and two are “trans-sustainable” themes (P2, R4). Both the New York Times and the Washington Post were most likely on average to find the code for expert implementation of rules or policy (P5) in any one article; 2.075 per article for the New York Times and 1.588 per article for the Washington Post. The second most common theme for the New York Times is the importance of nature being linked to humans (N2), while the second most common for the Washington Post is the need for economic incentives (E1). Trusting the market or economy (E1) is interestingly enough the least common of the top six codes for the New York Times.

Graph 2 does not take into account the before and after time period of May 2006 when An Inconvenient Truth was released. In order to see if there were differences before or after the film5, the codes were split chronologically and in accordance to paper. After calculating how many times a code would appear in for example, the New York Times before May of 2006, the number of code instances was taken and divided by the number of articles relevant to that time frame. For example, the code calling for the continuation of the current power structure (P1) had 4 hits in the New York Times before May of 2006.

5 The language of the results and discussion section are suggesting ONLY that sustainability’s discourse appeared to have changed during the time period of May 2004 to May 2008. In no way is the language meant to suggest that An Inconvenient Truth directly facilitated this change. A content analysis of the film was not part of this thesis.
There were 16 articles relevant to this time frame, so 4 was divided by 16 to calculate the average per article occurrence of that code: .25. And after May of 2006 for this same code, there were 7 hits for 37 New York Times articles: .189 average per article occurrence. The percent change between the before and after AIT was also calculated to see if the chance of finding that code went up or down in a notable way: in this example the difference would be a decrease of 24%.

The next two graphs, Graphs 3 and 4, are important to analyze because they will help indicate whether the time period around AIT saw any change in the discourse of sustainability and if so, how? Again the focus will be on the six most frequently occurring codes first shown in Graph 2.

Graph 3 shows the changes after the reference point of May 2006 for the six codes of Graph 2 for the New York Times exclusively. In order to compare the number counts of the codes, there needed to be a way to normalize the numbers. Taking the number of occurrences for each code and dividing by the number of articles pertinent to the “before” section or “after” section respectively would ensure the number of articles didn’t skew the results. For example, the code calling for renewable resources (R4) had 15 counts before May of 2007, which was divided by the 16 articles for that time period equaling an average per article occurrence of .938. After, the occurrence for this same code had increased to 33 counts but divided by the 37 articles equaled out to be only a .892 average per article; a slight decrease in per article occurrence as shown in Graph 3.  

Graph 3

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6 The New York Times had 16 articles in the “before” section and 37 articles “after”. 
Of the six codes shown above, the largest increase for a single code is “E1” or economic incentives which went from 3 instances before May of 2006 and 33 after (16 articles before and 37 after); the per article average increased from .188 to .892. It is important to note that of the six codes seen above, the codes for expert implementation of policy (P5) and linking the value of nature directly to humans (N2) still had on average at least one mention per article. Although they both experience declines in average occurrence these codes remained some of the most common. Expert implementation of policy (P5) went from having an average of 1.688 occurrences per article to 2.243 (the most frequently occurring code before and after May of 2006) and importance of nature linked to humans (N2) went from an average of 1.688 occurrences to 1.216 (the third most frequently occurring code after May of 2006, but second most before). These two codes, central before and after AIT map back into sustainable development or weak sustainability (P5, N2). The code calling for a less hierarchical decision making process (P2) was the second most frequent code after AIT having an average per article occurrence of 1.459. This code relates to both models of weak and strong sustainability, here called “trans-sustainable”. The code noting the inherent value of nature had an per
article average of 1.563 before AIT and after dropped to .784, making it still relevant, but almost a 50% decrease in occurrence; the largest decrease on Graph 3. This code relates exclusively to strong sustainability.

Graph 4 uses the same methodology that was used to create Graph 3 but of course with regard to the Washington Post. The Washington Post had 11 articles available to code before May of 2006 and 23 articles after AIT’s release. Again the same six dominating codes that were first presented in Graph 2 will be examined in Graph 4.

**Graph 4**

Initially it is interesting to note that of the six codes shown in Graph 4, only one of the codes showed an increase in per article average after May of 2006. Graph 3 showing the changes for the New York Times was split between three per article average increases (one of which was extremely large) and three decreases. The call for expert implementation of policies (P5) went from having an average occurrence of 1.364 per article to 1.696, which as shown on Graph 4 is a 24% increase. Conversely, the largest decrease came from the code advocating the inherent value of nature (N1). This code had a 1.182 per article average before AIT, which fell to .435; this as mentioned previously is
a strong sustainability theme. Of the codes shown in Graph 4, the code calling for expert implementation of policy (P5) remained, on average, likely to appear 1.364 times before and 1.696 after. Additionally the code supporting economic incentives or putting faith in the market (E1) had an average per article occurrence of 1.727, which remained above one per article after AIT at 1.087. These two codes remained very relevant before and after. The expert implementation of policy (P5) was the most common code after AIT, the second most was economic incentives (E1), and the third most common was less hierarchical decision making (P2).

It is interesting to see how this selected time period did or did not affect the codes that have been identified as “trans-sustainable”. Graph 5 displays the four “trans-sustainable” codes: the call for less hierarchical decision making (P2), which could be weak sustainability because it could be advocating for states to have power rather than the federal government or strong sustainability’s desire to have a network responsible for decision making rather than a hierarchy. The call for less hierarchical decision-making doesn’t specify here how drastic the change needs to be. The next two “trans-sustainable” codes are the potential for economic sacrifices (E5A) and the potential for non-economic sacrifices (E5B); weak and strong sustainability agree that sacrifices will need to occur on the path to sustainability. The two models differ in how acute they think the sacrifices will need to be. The last code is the call for renewable resources to be a part of energy policy (R4). This path is supported by weak and strong, but weak sees nonrenewable resources remaining an important part of energy strategies, while strong sustainability only advocates for renewable resources in the future. To see how these “trans-
sustainable” themes change over time could indicate to what extent these themes really do construct sustainability.

Graph 5

<table>
<thead>
<tr>
<th></th>
<th>p2</th>
<th>e5a</th>
<th>e5b</th>
<th>r4</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Economic sacrifices</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Non-economic sacrifices</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Renewable resources are needed</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Interestingly enough, the trends for the Washington Post are all negative; the New York Times follows this trend with the exception of the notable increase seen for less hierarchical decision-making (P2). The average per article occurrence for the New York Times went from .875 to 1.459 for this code (P2). Graph 5 illustrates that after May of 2006, the Washington Post completely stopped their mention of the possibility of non-economic sacrifices (E5B). However, neither the codes for either economic sacrifices (E5A) or non-economic sacrifices (E5B) were common overall. In terms of focusing on renewable resources (R4) while the New York Times didn’t see a large decrease, the Washington Post did: The per article average went from .818 to .435. These four “trans-

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7 New York Times E5A before n=3; after n=6. Washington Post E5A before n=5; after n=9. Overall E5A 2.5% of all codes. New York Times E5B before n=3; after n=5. Washington Post E5B before n=7; after n=0. Overall E5B 1.6% of all codes.
sustainable” themes overall, saw seven decreases and one increase; it will be of interest to see what these changes say about the conversation of sustainability in the public.

The changes seen above can be attributed to any number of events that occurred during May of 2004 to May of 2008 or even supporting the notion of sustainability as a “journey” discourse (Milne). Regardless, it is important to recognize the changes regardless of the catalyst; it helps illustrate how sustainability is a conversation: evolution, if you will, is part of its nature. What this thesis is trying to analyze is if an event that has a link to the themes of sustainability could have impact enough to change the conversation.

In the next chapter these results will be analyzed, particularly in the way that the themes map back into sustainability literature. It should be also reiterated that the construction of sustainability is not a neutral issue; many stand to gain or lose depending on which understanding is accepted. For weak sustainability to dominate strong sustainability, businesses, political hierarchies, and the global economy have positioned themselves to benefit magnificently. On the other hand, if strong sustainability dominates the discourse then one would expect to see dramatic changes in the economic and social structures.

DISCUSSION

This thesis aims to examine if the discourse concerning sustainability evolved during the span of time around the release of AIT. If the discourse did change, were the changes consistent with businesses influencing the discussion and claiming that to reach sustainability, one only needed the government to create the appropriate economic
incentives? Or did state politicians realize the potential power they could garner if they took the lead on environmental initiatives and placed inherent value in nature? What was the conversation around sustainability before and after, if different at all? If sustainability’s meaning is being contested, which themes are helping to construct these different notions of sustainability (Kopnina, 52).

This discussion section will mirror the results section quite closely. Graphs 1-5 discussed in the results section will be analyzed more in depth, particularly in relation to the sustainability literature and examples drawn from the *New York Times* and *Washington Post* editorials and op-eds. Mapping the results back into the sustainability literature illustrates if the conversation about sustainability changed in a dramatic way such as between weak and strong sustainability or only within one of those disciplines. Integrating examples from the two newspapers will help emphasize just how the discourses are being constructed.

Graph 1 of the results section focuses on the thematic codes at the most macro level: the eight thematic headings. Analyzing the most common frames focuses on the way the editorials and op-eds are talking about the breadth of sustainability. Looking at the *New York Times*, the most common frame is power and/or hierarchy, averaging four instances per article. This doesn’t specify the way in which power or hierarchy are being talked about, but it makes the point that the conversation about sustainability in the *New York Times* emphasizes the construction of power. Interestingly enough, the *Washington Post*’s most common theme at the macro-level is also power and/or hierarchy at 2.7 occurrences per article on average. The second most common macro framework for the *New York Times* is nature. Nature can be linked to sustainability by the notion of its
inherent value or by nature being only important because of its functional relationship with humans. The second most common frame for the *Washington Post* is economics; meaning putting faith in the market system or using economic policies to change behavior. This mindest is very much a weak sustainability framework: “...businesses as the major polluters are actively engaged in defining sustainability-related concepts for themselves ‘in a way which at best gives a weak definition of sustainable development’...” (Milne, 806). It should be mentioned that the codes related to the economy being detrimental or the negativity of the industrial system (E3B, E4B) had two occurrences overall, so these codes had no real influence in the conversation centered on economics in the *Washington Post*.

Playing no role in either newspaper, is the mega-theme of population; there were no instances of controlling population as a means to achieve sustainability. Overpopulation of humans is a strong sustainability theme and in the scope of this thesis had no presence publically (Milne, 804). By centering on the economy rather than human population, it draws the conversation of sustainability away from other potential paths linked with strong sustainability.

Moving on to Graph 2 of the results section, which illustrates the specific themes most commonly used. The most common code in both the *New York Times* and *Washington Post* belongs under the power and/or hierarchy mega-theme; specifically the theme that advocates expert implementation of policy (P5). This is consistent with Graph 1’s highlighting of the political and/or hierarchy framework. The code advocates two things: one being that policies or laws need to be used to achieve sustainability, and two, this implementation needs to come from the top. The top of the hierarchy however, could
also mean that we need to put more faith into scientists or other educated experts, not just elected officials or politicians. Regardless, placing the importance on a hierarchical model reiterates a weak sustainable path. This segment from a *New York Times* article helps illustrate just how this conversation exists in the public discourse: “…The world’s scientists have done their job. Now it’s time for world leaders, starting with President Bush, to do theirs…” (“The Scientists Speak”). This quote distinguishes the need for a strong hierarchy with both educated researchers and elected politicians implementing change; consistent with the theme of “experts” (P5). The second most common code for the *New York Times* was linked to nature; again consistent with Graph 1’s findings. This code describes nature as only important because of its relationship with humans and the resources humans can extract (N2). Graph 1 describes the *New York Times* as having a focus on frameworks related to nature, this individual code clarifies just how the conversation is playing out: in an anthropocentric style. Take the following two examples from *New York Times* articles related to the value of nature: the first shows this anthropocentric view of nature, which is then contrasted with a biocentric frame in the second sentence. The first, “…Ward Pond Ridge Reservation, a 4,700-acre preserve in Cross River, N.Y., is one of the finest places in the Northeast to find butterflies…” defines nature as being important because of the beauty and enjoyment that *humans* receive (N2) (Cech). This sentence juxtaposed to “…Sprawl is bad for wildlife because it cuts habitat into isolated chunks…” which is directing the value of nature away from human placed worth to a more inherent and intrinsic value (N1) (“The Wild Zones”). The code proposing the inherent value of nature appears less frequently than its counterpart8.

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8 Average for inherent value of nature (N1) 1.019 vs. 1.358 for the value of nature as linked to humans (N2)
The second most common code for the *Washington Post*, again mirroring Graph 1, is the call for economic incentives (E1). This code specifically places the power of change into the market, either through free-market practices or implementation through government regulation. It also indicates that the *Washington Post* doesn’t appear able to converse about the future of sustainability *without* an economy. As one author of sustainability literature states:

> We suggest that portraying ‘sustainability’ in this way, businesses, and the related political and professional literature, have invoked a subtle and powerful use of language that appears to seriously engage with the elements of the sustainable development discourse (Milne, 825).

In this quote “this way” is in reference to the idea of sustainability as compatible with economic growth, market strength, and limited sacrifices. Not only does the *Washington Post* focus on hierarchical decision-making models, but also repeats the relevance of the economy. In this quote from a *Washington Post* article, both thematic codes are focused upon:

> Done right, however, there might be ways to use tax incentives and credits to persuade domestic manufacturers to make more efficient cars, and to persuade consumers to buy them. It is also true that, with the help of aggressive policy changes, both cleaner coal technologies and new biomass fuels, which make use of agricultural byproducts, could produce a much higher percentage of American energy (“Kerry Energy Facts”).

Economic incentives are promoted and the needed implementation path is through hierarchical power systems. Both the *New York Times* and the *Washington Post* have
stressed in Graph 1 and 2, their adherence to the weak sustainability or sustainable
development model because of the occurrence rates of a number of exclusively weak
sustainable codes\(^9\).

Up to this point the discussion has focused on the differentiation between the
conversations in the *New York Times* and the *Washington Post*. It appears that both
newspapers at a macro-level are speaking about sustainability in much the same way:
focusing on the power structures, especially at the top of the hierarchy (P5); the
importance of nature as being linked to humanity (N2); and that change can come from
putting faith into the market (E1). All of which support a model of weak sustainability or
sustainable development: an aggressively inclusive vision of sustainability, which refutes
the exclusivity of a strong economy or a healthy environment (Dryzek). The frameworks
or codes that were ignored or occurred rarely, such as human population as a tool of
sustainability, speak to the directionality of sustainability’s conversation *away* from the
model of strong sustainability which focuses on limits, requiring renewable resources,
and ecological justice. The focus will now switch to examine to what extent did the
discourse change as centered around May of 2006 and the release of AIT?

Graph 3 focuses on the six most prominent codes and maps the per article average
change for the *New York Times*. The most substantial change came from the code for
economic incentives (E1) which saw a 376% increase. As previously discussed,
economic incentives was the second most common code for the *Washington Post*, but
overall was the least common code out of the six for the *New York Times*. It seems that
after May of 2006, the *New York Times* modeled itself more similarly to the *Washington

\(^9\) Exclusively weak sustainable codes as opposed to the four “trans-sustainable” codes or the exclusively strong sustainable codes
Post in terms of increased faith in the market; this increase also emphasizes a model of sustainable development or weak sustainability solely. This is consistent with research about the impact of AIT that showed that after an area viewed the film, carbon trading systems experienced significant relative increases in household buy-ins; at least within the first year after viewing the film (Jacobsen, 2). This is an example of economic incentives being used to change behavior. The most common codes remained the call for expert implementation of policy (P5), however, the second most common code became the desire for less hierarchical decision making (P2) over the anthropocentric view of the value of nature (N2). It appears that in addition to increasing the presence of economic incentives in the sustainability discourse, the role of power and/or hierarchical frameworks became even more dominant after May of 2006 (P2, P5). But it is very important to mention that the desire for less hierarchical decision-making (P2) is one of the “trans-sustainable” themes that are applicable in both models of sustainability (weak and strong). So while we saw a substantial increase in a code exclusively related to weak sustainability (E1), a”trans-sustainable” code (P2) became the second most common code. The conversation has altered certainly, but on a path that consistently emphasizes weak sustainability themes and two “trans-sustainable” themes (P2, R4). Strong sustainability themes remain quite absent with the exception of the inherent value of nature (N1) which had a 50% decrease in per article average occurrence. Ultimately it appears that the weak sustainable conversation present before the turning point used here of May of 2006, remained very dominant.

\(^{10}\) Again, not implying that AIT caused this change, but rather that the change seen in sustainability’s discourse is consistent with changes seen after viewing AIT.
Graph 4 examines the change in the top six thematic codes but in relation to the Washington Post. The two most common codes before were the expert implementation of power (P5) and the need for economic incentives (E1). Again, akin to the New York Times, the expert implementation of policy (P5) consistently appears in high numbers and remains the most common code after May of 2006; this code also saw the only average increase across the six codes. Economic incentives (E1) remained the second most common code but did see a 37% decrease in average per article occurrence. This is not consistent with the New York Times increase or AIT impact, so it seems to suggest that other external influences were at work from May 2004 to May 2008. The largest decrease came from the code for the inherent value of nature (N1), which is also the only strong sustainable code represented on the graph. This mirrors the decline for this code in the New York Times, even though the drop was not as dramatic as that of the Washington Post. To see the only strong sustainability code fall seems to suggest that this theme had much less of an influence on the conversation around sustainability after. Both “trans-sustainable” themes also saw decreases in sustainability’s discourse: the code calling for less hierarchical decision-making (P2) decreased by 33% and the call for renewable resources (R4) decreased by 47%. These changes are quite different from the New York Times, which saw an increase in the demand for less hierarchical decision-making (P2) and only a very small (4%) decline in the theme about renewable resources (R4).

Approaching Graph 5 it seems that both the New York Times and the Washington Post, while undoubtedly experiencing changes in their discourse on sustainability, remain consistent with a model of weak sustainability that has select elements of “trans-sustainable” themes (P2, R4) and one of strong sustainability (N1). Discussing Graph 5
can help examine to what extent these “trans-sustainable” themes actually played a role in sustainability’s discussion. Two of the “trans-sustainable” themes were part of the top six codes examined in Graphs 1 through 4 (P2, R4). This reflects the presence that these themes have actively played in constructing sustainability’s meaning but the other two codes calling for either economic sacrifices (E5A) or non-economic sacrifices (E5B) had drastically less influence. This seems to suggest that while “trans-sustainable” codes are part of sustainability’s discourse, only those codes that were most congruent with sustainable development’s model really played a role. Particularly because the conversation draws attention away from negative implications of change (Dryzek). In a Washington Post article published in July of 2004 the negative tone of sacrifices is very clear, however it is interesting to note how the author attempts to downplay them at the same time:

Now that the world has accepted the basic message that the environment matters, campaigners have to move beyond denouncing everything that has an environmental cost; they have a duty to say which costs are most serious and how the expense of mitigating them should be apportioned (“A Green Pragmatism”).

This author suggests that sacrifices are going to be inevitable, but that not all sacrifices actually need to be made. This quote, while quickly mentioning the reality of future sacrifices, still manages to promote the sustainable development ideology of “we can have it all” (Dryzek). Neither economic sacrifices nor non-economic sacrifices are ideas that most people are comfortable with, so it isn’t a complete surprise that neither code established a strong presence in sustainability’s discourse.
The frequent appearance of the top six thematic codes has a lot to say about the consequential construction of sustainability. Of the six codes, three are exclusively connected to weak sustainability or sustainable development (P5, E1, N2), two are “trans-sustainable” themes that help create both weak and strong sustainability (P2, R4) and only one is part of strong sustainability (N1). It also seems that the conversation has become even more exclusive to themes of weak sustainability such as expert implementation of power (P5) and economic incentives (E1). This “closing” conversation is strongest in the *Washington Post* and slightly less so in the *New York Times*. The *New York Times* had the code advocating for the less hierarchical decision-making (P2) become the second most common code after May of 2006; this code is one of the “trans-sustainable” codes. The code calling for expert implementation of power (P5) remained the most common code on average before and after in both the *New York Times* and *Washington Post*. This adherence to a hierarchical, top-down model of decision-making (P5) is striking. By deferring all of the power and responsibility to those at the top of the pyramid, it takes responsibility away from the general public (Szerszynski, 11). This implies that the construction of weak sustainability in editorials and op-eds could really be self-serving in terms of drawing blame away from average citizens. It also seems to suggest that rather than this timeframe changing the understanding of sustainability, putting power at the top of a pyramid of power was reinforced.

It appears that rather than May of 2004 to May of 2008 seeing events controversial enough to promote drastic changes in something like sustainability’s discourse, what actually happened was the reinforcement of the incremental model that is so consistent with business interests (weak sustainability).
Sustainability as a journey’ invokes a subtle and powerful use of language that appears to seriously engage with elements of the discourse around sustainable development and sustainability, but yet at the same time, paradoxically, may serve to further reinforce business-as-usual (Milne, 801).

Again, this thesis does not do any in-depth analysis of AIT or the intentions of its producers, directors, and speakers, but it can be suggested that rather than *An Inconvenient Truth* promoting a radical change, the focus was about getting people to accept the reality of global warming and climate change, and giving them incremental steps to take and hope that they could in fact reach sustainability with not much effort.

**CONCLUSION**

It seems unrelated to quote a poet in the conclusion of this thesis, but Emily Dickinson’s poem *Tell All the Truth* illustrates the methodology of sustainability.

Tell all the truth but tell it slant,/ 
Success in circuit lies,/ 
Too bright for our infirm delight/ 
The truth’s superb surprise;/ 
As lightning to the children eased/ 
With explanation kind,/ 
The truth must dazzle gradually/ 
Or every man be blind. (Dickinson)

Sustainability’s meaning is hidden beneath layers of expectations and perceptions that have been placed on the concept by organizations that are in themselves very divergent.

As the poet Dickinson suggests, to expose the true “meaning” or identity of sustainability or any “truth” for that matter is to “blind” humanity. A power and weakness of sustainability is the malleability of its discourse, and perhaps as Dickinson suggests, to
illuminate the truth directly, takes away from its conceptualization in the public. Perhaps the discourse of sustainability remains so focused on the capitalist, industrialist system because the public simply isn’t ready for any other understanding or so they’d become “blind”.

For that reason, this thesis aimed to take an indirect look at the construction of sustainability through discourse analysis that ignored individual author’s notion of sustainability and focused on the themes present. While this thesis is being written for the realm of academia, the focus was on the conversation happening in the public in order to analyze the creation of sustainability in the larger societal mainframe. Another aspect of sustainability that makes understanding the meaning-making difficult is that sustainability has been identified as more of a “journey” metaphor rather than a term defined (Milne, 802). This also suggests that over time or because of an event, sustainability’s meaning could alter in a significant way.

The May 2006 release of An Inconvenient Truth directly focused on climate change. The grave concerns it raised connected to a number of underlying themes such as renewable resources, policy implementation models, and the role of the economy; themes, which also play a role in the broad discussion around sustainability.

Sustainability’s meaning is contested and cultural influences such as AIT might have played a role in the construction of its meaning.

As described in the results and discussion section, the themes framing the meaning of sustainability, remained fairly consistent across newspaper and time; even converging during the four-year stretch. Sustainability continued to be understood *primarily* in terms of sustainable development or weak sustainability with emphasis on a
hierarchical model of policy implementation, nature’s value being linked to humans, the important role of economic incentives in changing people’s behavior, and the lack of thematic elements exclusive to strong sustainability such as biocentrism or ecological justice. In particular, at least in the discourse movements of sustainability, this time period seemed to promote the traditional hierarchical system and the importance of economic incentives in order to achieve sustainability in the future. This understanding of sustainability promotes incremental methods to reach a sustainable future within the capitalist, industrialist system.

As aforementioned, the construction of sustainability is by no means neutral. To agree with the publically held conceptualization of sustainability is to benefit by being able to use this new “buzz-word”. Strong sustainability and weak sustainability remain quite distinct in their construction of the meaning of this term. They may both stand for the “true” meaning, as do the organizations and groups that support either side:

‘Sustainability’ implies continuity and balance, whereas ‘development’ implies dynamism and change. Thus, environmentalists are drawn to the ‘sustainability’ angle, whereas governments and businesses focus on ‘development’ (Kopnina, 53-54).

This quote illustrates how even aspects of the same root word are being pulled in different directions depending on the group or organization seeking to use sustainability. And it appears that this latter understanding of sustainability as promoted by business and government is very present in the public; an angle that seemingly wasn’t challenged but rather upheld over the course of this study.
Sustainability as a buzz-word might invoke the idea of long-term environmental health, renewable resources, and the end of climate change, but how sustainability is really being constructed, at least in the editorials and op-eds of the *New York Times* and *Washington Post*, seem to relate more to the political structure and economic incentives needed to achieve sustainability. The conversation also appears to be shifting to exclusively weak sustainable concepts with only a couple of “trans-sustainable” notions playing a less significant role. Sustainability as a “destination” is still very fuzzy, but it is clear through this analysis that the construction of sustainability in the public discourse is advocating that this type of desirable, sustainable lifestyle requires only slow and incremental changes. The future will be much better and “sustainable”, but today’s society will still be comfortable within; it appears that sustainability doesn’t necessitate scary or radical shifts to our capitalist, industrialist system.
APPENDIX A

SUSTAINABILITY THEMATIC CODEBOOK

PREFACE: Important to keep in mind while coding is that NOT every sentence or theme that is related to climate change, global warming, and/or energy will be relevant and should NOT be coded. What is important are the THEMES connected to sustainability as illustrated below, which have been taken FROM the sustainability chapter and therefore the sustainability literature. Please continue to refer back to this codebook and the sustainability chapter to ensure that the themes are indeed relevant. Also titles of articles SHOULD be coded if relevant, in that they should be treated as any other sentence. Abstracts, if available, should be ignored (abstracts are summarizations). ALSO VERY IMPORTANT: In coding the articles, many authors will use examples of what should NOT be done, please do not code these examples as they are actually in opposition to what the author is trying to construct! (Ex: President Bush was a bad president because he thought nature was only important to humans. This is wrong because nature has an inherent value. The first sentence should NOT be coded because the author is saying this is NOT how we should talk about sustainability and is simply lamenting Bush’s beliefs. The second sentence would be coded as “N1”).

MEGA-THEME      DESCRIPTION & KEY WORDS

Power/Hierarchy  This collection of themes deals with the hierarchical structures that designate power. More specifically it may deal with the current political structures, for example the good done by a politician or conversely, the harm caused by one. The themes may also talk about the need to change the current structure and there are a myriad of solutions that the article may talk about, such as putting more or less power in the hands of those at the top of the structure, focusing on a more grass-roots system, and the speed of the changes.

Congress, president, politicians, systems of power, corruption, experts, changes of power (incremental changes vs. immediate change)

SUB-THEMES (code):

1) Continuation of the current power structure (inherent hierarchy)
2) Need for less hierarchical system of power (ex. move power from federal to state or to local)
3) Complete change of hierarchy
4) Change of power
   a. Immediate
   b. Incremental
5) Expert implementation of policies (not necessarily political; or the call for more hierarchy; or developed nations to lead)

Economic  Themes in the economic grouping deal with either using business as a means to improve the system, or as the source from which problems stemmed. In particular the industrialist, capitalist system is at the center. Articles may argue that the current system is bad or good, can
be changed incrementally, or must be changed dramatically. These themes will also deal with economic incentives and using them to change behavior. Economic puts the problems either as a challenge or an opportunity.

Business, industrial, capitalist, money, economic incentives, broken system, can be fixed system, good or bad, manmade capital

**SUB-THEMES (code):**
1) Economic incentives (ex. putting the faith in the market)
2) Capitalist system
   a. It is not broken, can be fixed
   b. Is inherently broken
3) Businesses
   a. Part of the solution (opportunities)
   b. Healthy businesses and healthy environment are mutually exclusive
4) Industrial system
   a. Good
   b. Bad
5) Sacrifices might have to be made (ex. incremental approach to change may mean short-term sacrifices)
   a. Economic sacrifices
   b. Not economic sacrifices

**Social**

Social themes deal with the broader sense of society as a whole. There will be some overlap with the other themes, because social theoretically impacts every other aspect and vice versa. The themes will deal mainly with the distribution of wealth and goods across time and generations.

Redistribution, current distribution, speed of change, generational, ecological principles

**SUB-THEMES (codes):**
1) Redistribution of wealth across people
2) Redistribution of wealth across time
3) Restructuring of society along ecological principles
4) Incremental restructuring of status quo
5) Problems
   a. Opportunities to benefit from
   b. Challenges to change
6) Generations
   a. This generation (ex. installing solar panels may be initially costly, but the homeowner will benefit in their lifetime; this example would be coded as both a social theme AND an economic theme)
   b. Future generations
Nature

These themes will be the most indirect and perhaps the most difficult to code. They deal with the ways in which humans understand, relate to, and most importantly value nature. Either nature is important BECAUSE of the way it impacts humans and their way of life or nature has an inherent value that has no relation to people or society.

Nature, value of, health impacts of nature on humans (asthma from global warming example), control of nature, dominate nature, harmony with nature

**SUB-THEMES (codes):**
1) Inherent value of nature (ex. the air needs to be restored not because of the health of humans, but because humans have negatively impacted it and need to right it OR mentions the interconnectedness of nature)
2) Value of nature linked to humans (ex. pollution is important but ONLY because it affects humans ability to breathe and causes asthma)
3) Relationship with
   a. To control and conquer
   b. To live WITH, in harmony

Resources

These themes deal more specifically with natural resources and energy than any other section. The conversation will be about what the future in energy should be like and why it needs to be that way. Distinction will most likely be made between nonrenewable and renewable resources. Also important will be the impact on humans and their way of life.

Resources, nonrenewable resources, renewable resources, solar, natural gas, wind, nuclear, coal, tidal

**SUB-THEMES (codes):**
1) Nonrenewable resources
   a. With limitations are okay
   b. Are the only way to really produce power
2) Humans will find new ways of innovating indefinitely (this code also includes new technology; any mention of innovative technology would be coded here)
3) Renewable resources are the only way forward
4) Renewable resources are needed

Population

Population as a theme appears sometimes in discussion with sustainability. Either it is seen as a way to achieve sustainability or not. This may or may not appear directly.

Human population, overwhelming the earth, need to control, limit births
**SUB-THEMES (codes):**

1) Human population must be controlled  
2) Human population is irrelevant (must be mentioned specifically)

**Limits**

The limits model is one that was very common early in sustainability literature and is more common now with strong sustainability who maintain the importance of separating manmade capital and natural capital. “Space-ship Earth” is also represented here. The opposite may also be present in that human innovation or the Earth as an open system might also be represented. Also, the notion that we are “running out of time” or a very aggressive and frantic voice with often be used when referencing limits.

Limitations, closed system, open-system, “space-ship Earth”, expansion unlimited

**SUB-THEMES (codes):**

1) “Space-ship Earth”  
2) Limits exist (ex. need to take action NOW)  
3) Human innovation will never fail

**Emergent Themes**

Part of using a grounded approach means that a number of themes that may not be directly discussed in the sustainability literature may occur repeatedly in the articles. In order to account for these occurrences, this section will list themes that appear a significant amount of time that ARE linked to sustainability. (Note: this section will be created in part during coding)

**SUB-THEMES (codes):**

1) Faith; turning to prayer  
2) Paralysis (may be mentioned in regards to political situation, personal decisions, etc.)  
3) Denial  
4) Sustainability is bad for business/incompatible/doesn’t work in practice  
5) Recognition of a globalness or international nature of a solution
### APPENDIX B

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Wexler, Mark N. "Rachel Carson's Toxic Discourse: Conjectures on Counterpublics, Stakeholders and the 'Occupy Movement."


AUTHOR’S BIO

Christine Gilbert received her Bachelor’s Degree from the University of Maine in International Affairs with a concentration in German, and a minor in Business Administration in May of 2014. She was very involved with the Honors College during her four years of undergrad, which truly shaped her as a student and as a human being. She has accepted a full time position at Unum in Portland, Maine beginning June of 2014, but most definitely plans on going to graduate school in the future. She can also no longer use the word sustainability without pondering deep, intellectual questions.