

**A Case Study of Southern California Coastal Cities and  
the Significance of Economic Framing in Newspaper  
Reporting on Climate Change**

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## Abstract

California, the fifth largest economy in the world (LA times 2018: n.p; Fuller 2018: n.p) has committed to complying with international climate change treaties and agreements including the 2016 Paris Agreement (UNFCCC 2017: n.p). Cities and regional actors need to share critical information to mitigate climate change locally and newspapers are a conduit of climate change information sharing. Using Media Dependency Theory and tenets of discourse analysis, I show how local economic conditions and governing factors impact the media and problematize the reporting of climate change risk and information. This study contributes to development studies broader investigation into the impacts of climate change on specific localities and the role of hegemonic economic systems and values in the dissemination of climate change information. This paper situates the framing of neoclassical economic values that underpin American society's beliefs, language and culture, which influences societal actors including the private sector, civil society, and media. This research paper analyzes the language local newspapers in two Southern California coastal cities use to construct the discourse of climate change that is disseminated to the communities they serve. The study finds that local economic modalities influence how media shapes the language and information of climate change. The implications of these findings contribute to discourse analysis, climate change and newspaper literature which has previously been limited to quantitative studies attempting to relationship between the two. By noting the nuanced and triangulated context of local American power structures that require contextualized ground up approaches to disseminate climate change-based risk and information. Additionally, findings can aid in developing local city-led strategies for climate change mitigation/ adaptation efforts as well as strengthen readers' awareness of newspapers framing of climate change language.

## Relevance to Development Studies

This research paper presents a critical analysis of how climate change discourses are constructed and disseminated by local newspapers in two Southern California coastal cities. The case study explores how local newspapers that are situated in neoclassical economics in American capitalist society are influenced by the predominant economic framing as they develop discourses about local and national climate change mitigation efforts and knowledge. Specifically, I demonstrate how local economic conditions and governing factors impact the media and problematize the dissemination by the media of climate change-based risk and information which effectively disrupts progress in the active field of development studies and climate change literature.

As a long-time resident of California, I believe it is an important location to study in order to better understand how its economic status in the world affects the language and images associated with local climate change information distribution. This allows future work toward the consideration of how economic framing is embedded in language, thus limiting model building efforts for information sharing through international climate change networks to economically similar locations.

Also, it contributes to the understanding of how economic development impacts ongoing studies of climate change, specifically local, national and international policy, programs and rhetoric around the anthropogenic phenomenon. Previous attempts at understanding the role of the media to disseminate information to the public, and how economic framing of these issues influences messaging have largely been quantitative. In this study, I show how local economic conditions influence media and problematize the dissemination of climate change information.

A qualitative analysis of the rhetoric used by local newspapers that influence climate change information disbursement would contribute to local and global efforts to more

effectively communicate critical information to non-specialized actors, particularly readers and residents. The attempts by the United States Federal government to minimize the reality and consequences of climate change have placed the burden on states and media watch dogs to lead climate change mitigation rhetoric and deliver reliable and objective information to readers. Using Media Systems Dependency Theory (MSD) that defines the relationship between newspapers, social systems and readers where the social utility, surveillance and escapism are conditioned by the experiences of people in their communities and tied to the information they receive from the media about those experiences, I analyze the how local newspapers publish climate change related subject matter to impacts readers' cognition of the social systems that govern their cities even as the shaping of these issues is largely economic.

Climate change networks must address mitigation strategies for geographically similar, but economically disparate cities, states and regions, and work toward building globally acceptable and enforceable models for climate change justice. This paper is a critical first step in understanding the complexity of bridging localized strategies to national and global solutions.

## **Keywords**

Climate Change, Southern California, Framing, Newspapers, Economics, Language, Coastal Cities, Media Dependency Theory, discourse analysis

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## **List of Acronyms**

<b>UNFCCC</b>	<b>United Nations Framework Convention on Climate Change</b>
<b>CC</b>	<b>Climate Change</b>
<b>IPCC</b>	<b>International</b>
<b>LA</b>	<b>Los Angeles</b>
<b>LB</b>	<b>Long Beach</b>
<b>MSD</b>	<b>Media systems dependency</b>
<b>SaMo</b>	<b>Santa Monica</b>
<b>SoCal</b>	<b>Southern California</b>
<b>N.P (n.p)</b>	<b>No page</b>
<b>N.D (d.p)</b>	<b>No date</b>

## Chapter 1. Introduction

### 1.1: problem statement

Climate change is the defining issue of the 21st century. According to the most recent IPCC report “limiting global warming to 1.5°C would require ‘rapid and far-reaching’ transitions in land, energy, industry, buildings, transport, and cities. Global net human-caused emissions of carbon dioxide (CO<sub>2</sub>) would need to fall by about 45 percent from 2010 levels by 2030, reaching ‘net zero’ around 2050” (IPCC 2018: n.p). The IPCC’s critical analysis stipulates there is a twelve to eighteen year period remaining until the full effects of climate change become irreversible, meaning that by 2030 the majority of countries, cities and actors need to globally reduce carbon emissions in order to maintain the 1.5 degrees temperature threshold. However, the United States, the largest economy in the world (International Monetary Fund n.d: n.p) is currently governed by an administration that avidly denies the role of climate change in the changing environmental conditions of the country and the world as reported in the New York Times (Schwartz 2019: n.p ; Climate Mayors 2019: n.p). Articles note the actions of President Donald Trump’s administration in defunding the Environmental Protection Agency and withdrawing the US from the Paris Agreement are based on Trump’s “long held [belief] that the accord would cripple growth and intrude on American sovereignty” (Friedman 2019: n.p). The administration points to the potential economic detriment the US would incur by cooperating in international agreements, specifically how reducing emissions (based on its own nationally determined contributions) (Shear 2019) benefits other countries like China, in the balance of economic power and American supremacy.

The actions of the United States federal government shocked the world and motivated states such as California, the 5th largest economy in the world (\$3trillion GDP, 2018) (Associated Press 2018: n.p); (Fuller 2018: n.p) to commit itself to climate change

mitigation and adaptation locally and globally. California localities have taken steps to elevate the state to the status of climate change leader as the Los Angeles C40 steering committee member (C40 n.d: n.p) and have hosted a Global Climate Action Summit (Cart 2018: n.p). Eric Garcetti, Los Angeles's mayor, is the founder and chair of Climate Mayors (Climate Mayors 2019) who have engaged in climate change mitigation around the world. Garcetti cites the vulnerability of Southern California's environment as a predominant factor in his climate change leadership.

California is experiencing climate change (Xia 2019: n.p) along its 840 miles (NETSTATE 2016: n.p) (1351.85 km) of coastline, the longest of any state in the US federation. Despite the size and strength of its economy, the state will still see many of its coastal cities suffer and in turn its economy shrink with rising sea-levels - a defining aspect of the anthropogenic climate change phenomenon (Xia 2019: n.p).

The risk is significant for California coastal communities, therefore the stakes are high for the implementation of climate change mitigation/adaptation, which has led California and various localities and counties within the state to take action. In Los Angeles County (4751 square miles/12305 sq. km), these efforts vary per city and per economic modality as many cities operate under different levels of governance and therefore have not facilitated climate change mitigation and adaptation at the same pace or scale as their neighbors. Consequently, different economic modalities may determine the communication of climate change-based risk and information through local media outlets, specifically newspapers.

These information dissemination sources are also linked to local economies through advertising and as relational actors in the democratic capitalist system to observe, analyze and often normalize political and economic power. This paper asserts that these varying sociodemographic conditions and city specific economic modalities are responsible for

how local newspapers construct, contextualize and disseminate the language of local climate change information and risk.

In order to ascertain the relationship between newspaper reporting on local climate change based information/risk and the economic modalities /sociodemographic factors that influence the operations of the newspapers as watchdogs of social systems, this paper uses local newspapers articles on climate change impacting Southern California coastal cities as data. Research has shown that newspapers are a key source of information for everyday civilians (McCallum, Hammond, and Covello 1991:355) and more specifically a powerful tool in the dissemination of climate change-based information (Riffe and Reimold 2008:76). Given the literature about newspapers as key information delivery systems and sources of climate data this paper will examine newspapers in order to answer the question:

### *1.2: Research Question*

How do local economies in California coastal cities influence local newspapers' construction of climate change discourse for the public?

And the following sub question:

- Does newspaper reporting structured through the lens of the economy convey the environmental/geographical risks and impact of climate change?

### *1.3: background to study/context*

My research is a case study of climate change reporting in two California coastal cities in Greater LA: Santa Monica, one of the most progressive cities(Welch 2014: n.p) in California (the most progressive state in the US), and Long Beach - home to the largest

shipping port in the United States. Both cities have multiple local news outlets that document local, regional and state issues, including coverage of local attempts to implement climate change mitigation policies at a moment when retrograde politics on climate change is being pursued at the national level. I examine two newspapers each from Santa Monica and Long Beach for climate change coverage<sup>1</sup> because physical newspapers and their associated online presence are key sources of information for climate-based issues even as digital media dominants the era (Riffe and Reimold 2008:76). I assert that in an era of climate change, newspapers are powerful tools for public awareness, but the ability to disseminate important information is hampered by local economic modalities which constrain and limit the language used to construct these critical messages. Specifically, city-specific economic modalities that exist under the larger California state economy vary and depending on their success and industry can present challenges to mitigation and adaptation and its reporting. These challenges come in the forms of structure and language (text and visual) that are presented to the public by newspapers. By way of discourse analysis, I find that the reporting of climate change-based efforts is affected by the reliance on and importance of context specific economic modalities in California's localities.

In order to address these issues, we require context.

It is important to present a definition of the term minimizing risk, and how I am contextualizing it in my study. This paper builds on the notions from Joffe and Smith, as well as Wakefield and Elliot who in their studies discuss how many elements influence newspapers and other mediums of information dissemination (risk communication) abilities. Information dissemination is a crucial aspect of newspaper especially in a time of crisis, as people are more dependent on newspapers for vital information about the world around

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<sup>1</sup> Climate change coverage refers to reports on mitigation, adaptation, crisis, city lead efforts, discussions about climate

them. Thus, this paper defines minimization of risk as an act newspaper's writers commit in the construct of discourse for the purposes of this study climate change discourse. The construction of this discourse involves the use of perspectivization strategies that topicalizes, or de-topicalized information based on the writer's positionality of the point of said discourse. For example, because of this perspectivisation of authors, information can be critically changed based on the authors view which may present real climate risks/information with levity effectively disrupting the communication of risk and information.

### *Climate Change*

Since the late 1950s, when the phenomenon was first documented, climate change has been an existential threat to humanity. Under the 1992 United Nations Framework Convention on Climate Change (UNFCCC) climate change is defined as “a change of climate which is attributed directly or indirectly to human activity that alters the composition of the global atmosphere and which is in addition to natural climate variability observed over comparable time periods.”(UNFCCC 1992:7). One effect of climate change on the planet is referred to as global warming which occurs when the large amounts of greenhouse gases (GHGs)<sup>2</sup> are released into the atmosphere, trapping heat from the sun and causing a greenhouse effect, which in turn warms the planet (NASA 2019: n.p). Academics have copious amounts of evidence accessible through the IPCC reports that implicate anthropogenic factors as a direct cause of climate change, specifically mass industrialization and mass transportation are the leading causes of changes in Earth's atmospheric composition (NASA 2019: n.p).

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<sup>2</sup> GHGs are commonly known as Carbon Dioxide (CO<sub>2</sub>) methane (CH<sub>4</sub>) and nitrous oxide (N<sub>2</sub>O) and means those gaseous constituents of the atmosphere, both natural and anthropogenic, that absorb and re-emit infrared radiation (NASA 2019: n.p).

Sea level rise is a direct consequence of global warming as the warming atmosphere melts polar ice caps and increases the water in our oceans and waterways (NASA 2019: n.p). Despite the diverse topography of the state that experiences severe droughts and fires due to climate change, California is impacted by sea level rise more than any other climate change issue because of its extensive coastline (Xia 2019: n.p). For this reason, this paper focuses on coastal cities and how newspapers report on the climate change issues that directly impact the state of the cities (economic and humanitarian).

### *The United States of America and Climate Change*

The United States' 2017 withdrawal from the Paris Agreement was widely seen as a blow to the nation's international reputation (Shear 2019: n.p) and the efficacy of the Paris Agreement to realize climate change mitigation. The world's leading polluter and economic power cited its economy as a major factor for removing the nation from a globally agreed set of guidelines that laid the groundwork to maintain the temperature threshold of 1.5 degrees (Shear 2019: n.p).

The positionality of economics in the dominant conception of American societies is paramount to the relationship between the environment and society, as it would be in most capitalist economies (Daly 2015: n.p). Neoclassical economic theory or model has long since situated the environment and society as a means to support the economy, and in the American context has created issues regarding the conceptualization of climate change in politics and society at large (Daly 2015: n.p). This economic conception has taken root in the two dominant American political parties: Democrats (left) and Republicans (right). Since the advent of the Kyoto protocol these parties have entrenched climate change discourse and action along ideological party lines, trends noted by Dunlap and McCright who have documented the divide between Democrats seeking to mitigate the effects of climate change and Republican efforts to diminish the idea of climate change as an

exaggerated issue weaponized to induce fear, diminish the strength of economic capital and subvert control of local and state resources (Dunlap and McCright 2008: 1-2). This divide has grown since the 1990s, specifically through the contestation over the principles of climate change, which has escalated and established disparate audiences (state and local) for climate change information dissemination. I assert that economies (state and local) and localized cultures that directly utilize natural resources subject to climate change impacts influence newspaper discourse about climate change and the type of stories presented to the public.

### *The Case of California*

In 2017, Governor of California Edmund Gerald (Jerry) Brown of California announced “Today we’re sending a clear message to the world that America’s states, cities and businesses are moving forward with our country’s commitments under the Paris Agreement – with or without Washington.” (UNFCCC 2017: n.p) and initiated the 2018 Global Climate Action Summit in San Francisco, California. With a coalition of mayors from throughout the United States, Brown recognized the urgency of climate change and agreed to act in accordance with the Paris Agreement that gave more opportunities for sub-national actors including cities or corporations to play a larger role in climate change mitigation. The role of local actors is important for this case study and its relationship to regional, federal and global contexts.

Santa Monica, California is in West Los Angeles and situated immediately on the coast. SaMo (in the local vernacular) is the home of 92,306 residents (United States Census Bureau 2018: n.p). Santa Monica has a legacy of progressive policies and action with records documenting this trend from 1992 to current day 2019. Preliminary research conducted for this case study indicates that in 1992, SaMo’s City Task Force on the Environment promoted its first Sustainable City Program that was put into action in 1994 with

the stated goal “to reduce greenhouse gas (GHG) emissions by 30% below 1990 levels by 2015 for City operations and to reduce emissions 15% below 1990 levels by 2015 for the City as a whole”(CoolCalifornia n.d: n.p) This plan made SaMo one of the most progressive and forward thinking cities in the nation at that time. Since then, the Environmental Task Force has continued to build its legacy of environmental action through the City’s Food Waste Composting Program that “kept more than 1 million pounds of waste from Santa Monica restaurants out of the landfill in 2008. In addition, the Community Waste Diversion Program reduced GHG emissions by 36%” (CoolCalifornia n.d: n.p). Additional efforts include its Green Building Code which requires all buildings to meet the US Green Building Council’s LEED Silver standards.

Santa Monica’s economic model is based on tourism and is driven by its status as a beach city (Santa Monica 2015: n.p) with 280 days of sunshine annually. National Geographic rated it one of the top ten beach cities in the world along with Barcelona, Rio and Sydney, Australia (National Geographic 2010: n.p)

Figures from SaMo’s tourism industry elucidate this claim

Santa Monica’s vibrancy in 2017, with visitor spending in the destination reaching \$1.96 billion, representing a 5.1% increase...California’s robust tourism economy expanded in 2017, fueling more than \$132 million in travel spending, \$10.9 billion in tax revenue and 1.1 million jobs in communities across the Golden State. (Santa Monica Travel & Tourism, 2018: n.p)

Long Beach is a city on the south east side of the Los Angeles coastline. This metropolitan area is home to 469,450 residents (United States Census Bureau, 2018: n.p) and to the largest shipping port in the United States. The Port of Long Beach operates under the auspices of the city and mayor of Long Beach appoints the board that manages the

port. It is a public entity that is owned and operated by the city of LB, but it is a conduit for private sector business and therefore is representative of private sector interests.

According to the port's website, "The Port of Long Beach is one of the world's busiest seaports, a leading gateway for trade between the United States and Asia. It supports more than 2.6 million jobs nationally and generates billions of dollars in economic activity each year." (Port of Long Beach: n.d.n.p) The port reports its regional impacts as "More than \$5 billion a year in U.S. Customs revenues from the Long Beach/Los Angeles ports brings billions of dollars into Long Beach and the California economy prompting its name as "economic engine" of the city, and a significant asset for the state:

"About \$4.9 billion a year in local, state and general federal taxes from Port-related trade  
More than \$47 billion in direct and indirect business sales yearly

Nearly \$14.5 billion in annual trade-related wages" (Port of Long Beach: n.d.n.p)

Due to the port's long-term financial success, the city of Long Beach and its local newspapers use complementary language to describe it and often conflate the city and the port as a single entity.



*Figure 1: Map of Southern California, source: LA county*

#### *1.4: Scope and Limitations*

The scope of this research is limited to two coastal cities in Southern California. I chose these cities because they are in Los Angeles County, in proximity to each other and to the city of LA that has a robust climate change mitigation plan. Realizing that sea level rise is impacting the LA region, specifically the coast and the LA basin where I live, I wanted to critically examine the language newspapers use to inform the public about climate change in different localities in the region. I understand that analyzing more coastal cities' newspapers in my sample would give greater depth to this study. The inclusion of rhetoric from different localities with different localized cultures and economics would enhance complexity of the discourse analysis.

#### *1.5: Organization of Paper*

There are five chapters in this research paper. Chapter One contains an introduction and background to the study. The Second chapter presents and expands on the theoretical framework of Media Systems Dependency Theory (MSD), Discourse Analysis (DA) and a literature review of newspapers, economics (framing/socio political economy), and newspapers and climate change. Chapter Three unpacks the methods for this case study and expands on the procedures of DA that I employ. Chapter Four presents the analysis of the newspaper articles, and Chapter Five contains the conclusions and implications of the study which includes policy recommendations to relevant actors.

## Chapter 2. Theoretical Framework

The context of this case study positions Santa Monica and Long Beach and their respective newspapers in the larger literature of climate change and newspapers. The implications and justifications for this positioning are as follows:

### *2.1: Literature Gap*

A number of studies have explored the media's relationship with climate change, some identifying patterns of coverage for these issues (Dotson, Jacobson, Kaid, and Carlton, 2012; Zamith, Pinto, and Villar, 2013; Feldman, Hart, and Milosevic, 2017). These particular studies describe climate change as an issue that is nation specific, as well as a phenomenon that falls in and out of journalistic coverage.

Other studies focus on the media's effectiveness to disseminate climate based issues or risk (Riffe and Reimold 2008; Wakefield and Elliot 2003; Smith and Joffe 2009), which claim newspapers are important in the public's understanding of climate change and its limits/benefits as a medium for climate change based information. Scholars note that media can and should be researched for its ability to engage the public on this risk (McCallum, Hammond and Covello 1991; Riffe and Hrach 2009).

While these studies have contributed to understanding media as a tool and how it relates to climate change, little research is done on the influence of localized economies on local newspaper construction of language about local climate change. Some of the oldest but foundationally relevant work relating to economics operating as a hindrance to newspapers is by Soley and Craig (1992) who find that advertising by corporations has an effect on the ability of newspapers to use specific language to report on issues without concern for corporations to pull advertisements that finance their journalism.

More recent literature frames this topic through research done on crime and media coverage, for example a contemporary study *Corporate Crime as Trouble: Reporting on the Corporate Scandals of 2002* by Cavender & Miller (2013), builds on older theories by Emerson and Messinger (1977) that find that media is influenced by ideology and economic interests. These scholars assert that their findings are comparable to cultural criminology's literature (Hayward 2010) on the relationship between crime and media coverage/representation of it. Additionally, they note that the dimensions of power continue to shape the media's representation of private sector (corporate) crimes as an inconsistency rather than the norm, and rather than asking critical questions to understand these crimes, media leaves the messages vague and unconnected which influences the audience perception (Jewkes 2004; Campbell 2010) of the importance and impact of these specific issues (Cavender & Miller 2013:14).

This literature describes media as having a relationship with the private sector established through the private sector's power over media. Additional research focuses more on the relationship of the internet as a main source or critique of economics. This undefined power of the private sector is left broad by the research that has followed Solely and Craig (1992), as the contemporary literature establishes this relationship through inconsistency or ideology. However, developments that determine the way that this relationship effects media under local contexts (local economic modalities and governance) have not progressed as robustly.

My research builds on Solely and Craig's theory of advertisements and the private sector power over the media to influence reporting by employing the MSD theoretical framework to understand the relationship between media and society. I pair this with relevant literature to justify the epistemological position which defines power more specifically as

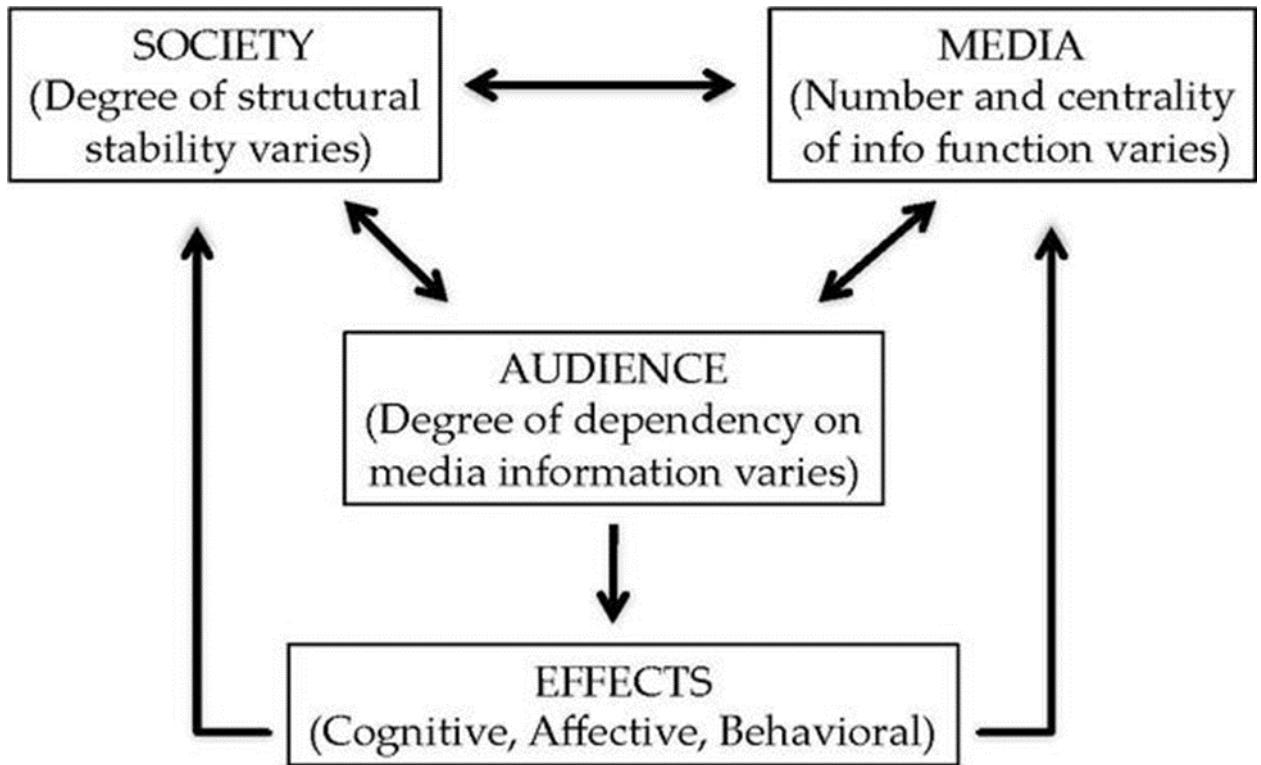
economic factors in local contexts that can influence the media's reporting of critical news.

## *2.2: research approach and questions*

This paper seeks to contribute to the literature on the relationship of climate change and newspapers and develop work on the relationship of newspapers and economics. To do so, this paper employs a general form of discourse analysis to scrutinize the language of newspaper articles in their reporting of climate change, comparing two coastal cities in the Southern California region that operate under two different economic modalities (shipping-based export/import and tourism) as described in chapter one.

Using this theory, I justify my assumptions regarding the role of media and climate change information and view the research through the lens of Media Systems Dependency theory (MSD) in order to understand the relationship between newspapers and the societal factors that impact climate change messaging/reporting. The following literature contributes to the understanding of this contemporary phenomenon.

Media Systems Dependency theory was developed by Ball-Rokeach and Defleurs (1976) and focuses on a tripartite relationship between media, its audience and society as represented in figure 1.



(Figure 1. Media dependency theory visual of theoretical framework)

The major tenets of MSD establish that mass media, and in the case of this study - newspapers, impart cognitive, affective and behavioural messages because newspapers operate and cover varying aspects of society to fulfill their central role of information disbursement (Ball-Rokeach and DeFleur 1976:7-8). According to the MSD framework, the role of newspapers is heightened in times of social crisis or change because the audience which is largely assumed to be focused on their livelihood in complex social systems has a dependency on newspapers to provide critical information that affects their everyday lives (Ball-Rokeach and DeFleur 1976:7-8). This paper utilizes the macro level foundations of MSD that determine the effect of society on the media through economics and politics, and operate on the assumption that the private sector is synonymous with corporations, some of which are advertisers in newspapers that consequently infringe on the ability of newspapers to objectively disseminate information. To be specific, the

economic power structure of American social systems where the environment exists within the economy (neoclassical/capitalist economics) gives supremacy to the economy over everything else, framing the private sector's (Dequech 2019:467) actions relative to climate change. Newspapers also exist within this framework, therefore their reporting on society [read the economy] provides a more focused conceptualization of MSD in a contemporary and urgent context.

Agenda setting theory is incorporated in the framework of MSD. It posits that media agenda setting effects are heightened during a crisis or emergency when the audience's need or its dependency on the media is high, giving the media more leverage over its messaging where people must suspend their critical gaze because they are reliant on information necessary to save themselves or their communities, or to be aware of what is happening in the larger world. Newspapers are aware of the fluidity of this triangulated relationship because they too are bound to and leveraged by social structures including political and economic institutions that impact capitalist trends and consumer consumption of things, ideas and information reported on in the media.

This paper asserts that due to the encompassing nature of climate change in this time of global change and conflict, people need information about the natural world in which they live. The power dynamic between economics and newspapers this paper has outlined stipulates that the economy infringes on the media's fulfillment of its role of information dissemination, the ideation of which is analyzed through a discourse analysis of newspaper language and rhetoric about climate change.

### *Discourse analysis*

Sociologist Nikki Cole (2019) defines discourse as

“... how we think and communicate about people, things, the social organization of society, and the relationships among and between all three. Discourse typically emerges out

of social institutions like media and politics (among others), and by virtue of giving structure and order to language and thought, it structures and orders our lives, relationships with others, and society. It thus shapes what we are able to think and know any point in time.” (Cole 2019: n.p)

Van Dijk, a leading theorist of discourse analysis stipulates that discourse is a concept that can be understood through close inspection of practical, social and cultural phenomenon (Van Dijk 1997:20) because language and those who use it do not exist outside of social context.

Discourse analysis is a qualitative approach<sup>3</sup> that contains several schools of thought which enable scholars to analyze discourse and its nuances. Van Dijk (1997) and Wodak and Meyer (2009) note that discourse analysis goes beyond the framing of other methods of research (where other methods begin with assumptions) by acknowledging discursive tenets as social practices embedded in cultural, social and historic values, proliferated through languages/interactions and supported by the relationship between discursive implementation and social engagement (Fairclough 2009:6). This methodology illuminates the relationship between power and language (Fairclough 1992; van Dijk 1993) and demonstrates how discourse is shaped by these dynamics (Fairclough 1992:12).

This paper focuses on textual and visual language used in newspapers, specifically how language through the use of syntax and rhetorical tropes such as metaphor, idiom and metonymy communicate ideas about climate change and power structures that address and mitigate it. Investigating language within these guidelines allows scholars to scrutinize discourse/language as being symptomatic of existing and historic institutional power systems to determine the constructs of meaning (Goodwin 2011: 170).

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<sup>3</sup> Note that discourse analysis can also be quantitative.

Some research approaches situate power as an inherent concept that is in a given context but fail to question the underlying institutional or societal factors that establish this power dynamic. Discourse analysis examines how language is representative of power that permeates through social systems and the analysis asks critical questions to understand the ways such paradigms persist. For the purpose of this study it questions how/why specific economic modalities express and support dimensions of power through newspaper language relating to climate change. When corporations utilize the dominant ideology of neoclassical economics and situate the natural environment as an asset, DA questions the power structures that bind physical phenomena to economic ones as part of an articulation of experiential meaning. Therefore, DA is a useful method in understanding how power exists in a given context or framework by looking carefully at discourse utilized by a variety of actors to sustain, implement and build on structures/notions of power, language and meaning.

Van Dijk posits that individuals can/do filter and expand on information through peer interaction, building on Giddens's social theory (see Giddens 1987 for further clarification) in which individuals and group interactions develop understanding of localized knowledge. Using van Dijk's sociocognitive approach discourse can be analyzed in sociological terms such as structuration (Van Dijk, 1997) that both scholars assert are inter-related through communicative interaction. I use this methodology to question how newspapers use language and visual imagery to construct narratives about localized climate change that build on the confluence of power structures (political and economic), social interactions and interests of individuals and groups (readers and corporations) (Frerks and Klem 2005: 2). This is done to formalize how the dynamics of structuration elicit multiple understandings and localized knowledge about climate change in these California coastal cities.

By building on MSD theory and the tenets of discourse analysis from more contemporary literature this paper will connect these foundations to the observations and analysis of newspaper language and the dissemination of climate change information.

#### *MSD and political economy/structuralism*

As noted in the underpinnings of MSD, economics and media are linked, for example, in the way that media is dependent on the economy for the social values that are incorporated in newspaper reporting on the society and for supporting the media through advertising and profit. This relationship imparts an innate bias of economic modalities in the language and information expressed through media and in the case of this study, specifically newspapers. This paper builds on these foundations of MSD with literature to assert that an analysis of media is inseparable from an economic analysis as it is an enterprise in a corporate, capitalist society. Through this inherent relationship economic forces can utilize this dynamic to effectively silence language and stories that may be controversial to the private sector's positionality, and by using the agenda power of media, promote alternative stories or topicalize misleading information. The following literature provides supporting information to this hypothesis.

Newspaper reporting is influenced by several factors, such as politics, social issues, and the local and regional economies that determine the sustainability of the paper itself, as well as its readership. The private sector has a vested interest in maintaining positive viewpoints on products and/or the company's ethics/ventures. Driven by private sector desires to position companies as ethical and in good standing, through advertising these companies construct transactional relationships with newspapers in which newspapers are given incentives to positively report particular issues that have a direct impact on the financial outcomes of the company. This is the triangular relationship that MSD defines.

Economic factors can skew or influence the role of newspapers as delivery systems of information. Solely and Craig (1992) note that “Bagdikian (1983) contends that advertising is a major determinant of what is and isn't discussed in the mass media.” Bagdikian (1983) promotes the theory that advertising is a key mechanism of economic corporatization in that “The media are no longer neutral agents of the merchant but essential gears in the machinery of corporate giantism” (Solely and Craig 1992:1). Thus, the capability of the press to communicate information is severely impacted by corporate advertising, which is the primary means of newspapers funding, publication and circulation; therefore, advertising dollars directly affect the story making/agenda setting process.

More recent literature reinforces these theories that dependency on financing from corporate advertising creates a tendency for journalists to cater reporting towards a pro-business model (Anderson 2009:5). Other literature also points to the use of power via the private sector censors a publication’s reporting of government documents to obscure the relationship of climate change to non-renewable fuels like that of fossil fuels (Monbiot 2006; Revkin 2005; Antilla 2005).

In this case study, the relationship between advertisers/corporations/private sector and newspapers can problematize climate change mitigation/adaptation reporting, particularly the emphasis on greener energy and other sustainable practices by positing that these solutions damage local economies due to implementation costs. The economic construct of climate change has dangerous implications to communities and the larger global efforts to mitigate and create sustainable models for the health of humanity and the planet. Thus when newspapers reinforce socio-political beliefs about climate change as an economic issue, the risk to the environment is undervalued and/or obscured.

### *Economic framing*

The economic framing of newspapers is particularly pertinent to the delivery of climate-based information and the ideation of climate change by the public. Stecula and Merkely (2019) in their empirical survey about climate change and news media claim that

Researchers have found that fluctuations in the state of the economy affect levels of environmental concern (Kahn and Kotchen, 2010). People are less likely to support climate change mitigation policies when the economy is underperforming (Elliott et al, 1997), and concern with climate change is correlated with higher levels of employment and income. (Stecula and Merkely 2019: n.p)

In the case of my study, although California is the fifth largest economy in the world, different localities interpret how climate change impacts the strength of their economies in diverse ways, particularly through the lens of producers and consumers. The diversity of economic modalities and their respective strengths provides insight into the nuances of localized climate change language and reporting, which can be understood by the determination that

Economic concerns surrounding climate change can be framed in terms of their costs and benefits. Some work has shown that cost-framed messages are effective in influencing climate change attitudes and behaviors (Davis, 1995; Vries et al., 2016), while framing climate mitigation in terms of possible benefits increases support for climate action, even more so than pointing out the costs of inaction" (Stecula and Merkely 2019: n.p)

The literature provides empirical evidence that the economy influences the media by undermining newspapers' willingness to use specific language and construct specific stories. Shaping climate change through its costs and benefits also informs the language and the message it delivers depending on the association with the mitigation/adaption effort. The implications of this are the removal of the agenda setting power from the press to highlight particular issues, and the redistribution of that agency to the private sector. This

does not mean that all newspapers forego defending their journalism for the economic support of advertisers, but it does reveal the phenomenon that newspaper content is affected by economic factors and private sector influences.

MSD positions newspapers as a watchdog for the public on state actions and economic issues, which in turn enables the public engagement of a deeper understanding about the society in which they live (Ball-Rokeach and DeFleur 1976:7-8). As a result, newspapers act as a barometer of social tensions and issues, highlighting and framing societal concerns. The construction of public consciousness and stability not only benefits the public and the state, but the private sector through the maintenance of the vehicle (the media) through which all these actors interact to uphold mechanisms where business can continue.

#### *Newspapers and climate change*

Scholars McCallum, Hammond, and Covello (1991:355) document that local newspapers provide the most consistent and pervasive coverage of local environmental impacts and information. They determine that audiences are engaged in the impact of climate change on local issues and thus are invested in seeking coverage that delivers this information. As a key source of social and environmental based issues, the public must rely on the newspapers to be a continued source of credible information.

#### *Newspapers' visual imagery and climate change*

The articulation of risk is fundamental in understanding how newspapers disseminate climate change information because climate change has implications for human survival as well as economic and social systems. Wakefield and Elliot (2003) assert that newspapers may not be the best method of risk communication for environmental issues because of inherent journalistic and editorial bias. Their study implies that newspapers' raw textual formats are largely ineffective in expressing risk and that person to person explanation is

an ideal way to communicate risk. However, digital newspapers have changed the way people interact with the medium. Riffe and Reimold's (2008:76) more recent findings indicate that the internet as a medium for newspapers is an increasingly reliable source for environmental information.

One example of the way that digital news reporting communicates risk is through detailed, full color images are available in online news sources that support textual and visual information in printed publications. These images have greater potential for risk communication than just textual content because visual imagery can invoke a more powerful emotional response making it a useful tool in risk perception, specifically in establishing an emotional connection which can remove the doubt or uncertainty, and arouse or stimulate responses (Smith and Joffe 2009: 648).

Visual imagery operates in risk perception as a unique mechanism in the articulation for environmental hazards/risks due largely to the graphic nature of pictures exposing said risks. Domke, Perlmutter, and Spratt (2002) and Perlmutter and Wagner (2004) note that imagery is used to create a narrative through visual language about particular subjects and newspapers that use visual imagery to demonstrate grave and impending issues such as climate change are more likely to be considered as reliable sources. Smith and Joffe's (2009) study tests newspapers' ability to disseminate risk with visual and textual elements and conclude "The present study has identified the salient images that newspapers choose to represent the climate change threat... In particular, visual content solidifies the climate change risk providing tangible examples of its impact. Scientific uncertainties are removed by visuals' concretisation function" (Smith and Joffe 2009:660).

Otanez and Glantz (2009) find that "Tobacco companies engage in the creation and circulation of visual tobacco culture to portray tobacco farming as a tradition to be protected instead of an industry to be regulated" (Otanez and Glantz 2009:19). These findings

allude to the creation and manipulation of visual imagery from the private sector in order to support the positionality of business in their advertising. I build on this concept by noting that private sector influence in their own marketing imagery does impact and extend to the imagery of newspapers that have an established relationship with the private sector.

The literature, language and framework lay the foundation for the role of visual imagery in the articulation of climate change risk/hazards and cements the positionality of newspapers as the dominant source of information for environmental issues. This paper will analyze visual images included in the newspaper articles for how they help framing the discourse about local climate change events.

My research project utilizes the general foundations of discourse analysis, in that I employ tenets and procedures based on these approaches because newspapers are a form of social practice, acting as both a conduit for and extension of systems of language and power. I contextualize newspapers and climate change as loci in discursive structures of discourse analysis to unpack newspapers language and reporting of beliefs about place, the economy and climate change.

Media Systems Dependency theory structures my study as media, economics and the audience/public exist in a complex relationship by which actors contribute and influence on one another. In this contemporary moment when developments to the field of climate change literature are made through ongoing analysis of media and economics, I use MSD to situate and expand upon the relationship between newspapers, climate change and economics which operates with some level of agency in all facets of society, through powerful actors, mainly private sector companies and interests. These confluences inform climate change language of newspaper coverage in what to report (or not) and how to communicate (or not) the fullness of the issues. This paper asserts that the social structures

of these specific coastal localities contribute to the framing of climate change by local newspapers, serving to aid or mitigate economic influences of such modalities.

## Chapter 3. Methodology

This chapter describes and expands on the procedures of discourse analysis for this qualitative study. I provide a detailed explanation of the sample in which the rationale and justification for the newspapers and the specific cities will be articulated. Lastly, I explain the aspects of discourse analysis, which I employ in my analysis of the textual and visual language found in the articles.

### *3.1: Methodology*

In order to understand how local economic and social factors construct newspaper language around climate change, articles must be examined in depth. In this study, I look at four articles from Santa Monica: two from Santa Monica Mirror, and two from Santa Monica Daily Press; and four articles from Long Beach: Long Beach Press-Telegram, Long Beach Post newspaper two from each newspaper. I selected these eight articles based on Foucault's reference to prescriptive texts "which expose rules, opinions and advice of how problems should be addressed" (Bacchi 2009: 34).

Recognizing that discourse is qualitatively interested in a small set of cases that help to rigorously analyze language, I limited my sample size, prioritizing journalism that highlights contextual reports about the respective city's engagement with climate change. The criteria include articles that defined climate change in the specific locality and detailed what mitigation might look like. I use other selection criteria such as the time period, specifically including articles that were published from 2015-2019, from emergence of a much larger conversation about climate change in the United States to the respondent discourse following the election of Donald Trump and his removal of the US from the Paris Agreement.

I examine articles for themes relating to economics, city adaptation/mitigation plans, and what is and what is not reported to explore the relationship between the economy,

climate change, and language (written and visual). Noting the extensive amount of time it takes to move through one new story, I kept my sample size, precisely focused with the framework of MSD, discourse analysis, and a hermeneutic framework for content. Hermeneutics is concerned not only with edifying the underlying meaning of texts, but also with examination of what is conspicuously absent from those texts (Josselson 2004:1) By problematizing the language newspapers employ to present local climate change issues and risk, this paper can explain how varying economic conditions influence climate change reporting.

### *3.2: Sample/ Design*

This research is a case study that examines newspapers from two different California coastal localities with two different economic modalities, both of which are specific to Los Angeles County. I situate my focus on Santa Monica and Long Beach, cities that operate under tourism and port-based export/import economic modalities respectively.

These two divergent economic modalities are both in danger from comparable climate change affects (i.e. sea level rise, increase in temperature, water scarcity...) as proximal coastal cities and provide a context to study the construction of climate-based issues and risk in newspaper coverage.

*Table 1: Article titles and dates table (listed chronologically)*

Santa Monica Demonstrates Impact On Addressing, Fighting Climate Change	Dec.2015
Despite El Nino rains and deep snowpack, state board extends mandatory water conservation (Long Beach)	Feb. 2016

A SoCal First: Santa Monica Pier Installation Helps Public Visualize Climate Change: The Virtual Reality “Owl” offers a glimpse into future sea level rise, and what to do about it	Aug.2016
Long Beach sounds off on climate change	Aug.2018
Climate change in SM  (Santa Monica)	Oct. 2018
Drought, flood and smog: Climate Plan contemplates environmental challenges  (Santa Monica)	Mar.2019
The impact of climate change on Long Beach port will be profound	Apr. 2019
The deadliest consequence of climate change is hotter weather  (Long Beach)	Apr. 2019

*Table 1.*

Data for this research comes from different newspaper sites: Santa Monica Mirror, which was founded in 1992, and circulates around 22,000 print copies weekly; and Santa Monica Daily Press founded in 2001, with a circulation rate of 28,000 print copies and a readership of 43,600 (PressReleasePoint n.d: n.p). The Daily Press is the only daily newspaper in Santa Monica. Long Beach newspapers include the Long Beach Press-Telegram, with a print newspaper that circulates 41,038 printed copies daily (Archbold 2017: n.p); and the Long Beach Post circulation information is not available.

Climate change language is evaluated from the eight newspapers articles reporting on climate change in Santa Monica (4), and in Long Beach (4). The Long Beach articles were chosen from a special series of articles compiled by the Long Beach Post that attempt to describe climate change effects for the Long Beach community, showing the readers how climate change will shape Long Beach, and highlighting rhetoric from city officials and scientists who speculate on how the city might react to the threat of climate change. Santa Monica's newspapers follow similar themes (climate change and how it will affect Santa Monica). These articles cite city policy and policy makers, as well as international climate change network information and policy.

### *3.3: Procedures/ Analysis*

My project scrutinizes local coastal newspapers for reporting on local climate change events and climate change mitigation efforts. Through discourse's conceptual tool, I isolate and analyze rhetorical devices to ascertain which aspects of newspaper language support the constructs of power in the dissemination of climate change information. From this work, three themes emerge: the minimization risk, the conflation of economy and climate change and finally, the offering of solutions to mitigate/adapt local climate change effects.

I employ an analysis of literary devices including nominalization which describes language that obscure responsibility by changing verbs into nouns (Schally 2014: 64). Schally (2014,) describes nominalization through Machin and Mayr's reference where the concept of globalization/the changed global economy as a clear example of nominalization where agency and responsibility are obscured by pattern shifts of verbs and nouns. '[The talk] looks at the longer-term picture and examines which countries will emerge in better shape and what should be done to respond to the changed global economy.' (Machin and Mayr 2012:139) (Schally 2014: 64)

Rhetorical tropes are another linguistic device that I look for in the news coverage of climate change in Santa Monica and Long Beach, concentrating on metaphor, patterns, schema, and metonymy. Metaphors and idioms are so foundational to the way we communicate, and the language choices we use, that we often do not realize we are employing rhetorical devices instead of directly addressing ideas. Therefore, it is hard to discern when metaphor is used as a device to avoid specificity for example versus its use as a common language structure, but it is necessary to examine its use for context and meaning. Metonymy also obscures direct language in that it describes when something is referred to by a different name. Similar to metaphor, metonymy is important in its relational context by using commonly understood words and phrases as substitutes or indicators of other things.

Presupposition relies on certain knowledge and awareness that is not stated but understood. Critically analyzing presuppositions investigates what information is presented as given, what is implied and what is omitted or silenced (Machin and Mayr 2012). Analysis of this rhetorical device is pivotal in climate change reporting that omits directly blaming specific industries and consumption patterns for climate change. Additionally, by focusing on economic frameworks, presuppositions take for given that climate change can be mitigated through financial means when in fact that is a contested solution (Machin and Mayr 2012:137).

Similarly, this paper also looks at language through van Dijk paired with Wodak's applied discourse-historical approach including referential, predicational and argumentative strategies. I focus on the argumentative strategy where positive and negative attributions are justified through social/political inclusion or exclusion of persons or groups. These prejudiced ideologies can appear through specific language and rely on shared understanding of what is not said.

Perspectivization is a device where discourse producers position their point of view to pursue a strategy of intensification in which they topicalize a point of view while mitigating and detopicalizing the views of experts (KhosraviNik 2010: 57).

This and other argumentative and referential strategies can influence language and its analysis (KhosraviNik 2010: 57). These and other metaphoric tropes rely on shared understanding and imagery, therefore I also look at visual images that accompany climate change reporting in the aforementioned newspapers. Elinor Amit, an affiliate of the Psychology Department, and Evelina Fedorenko of Harvard Medical School recently concluded that visual thinking is deeply ingrained in the brain, particularly in regard to things that are close to experience- temporally, socially and geographically (Reuell 2017: n.p.). Amit notes that humans have understood the world visually for much longer than they have verbally, so our brains are hard wired to interpret visual language even when engaged in verbal and written thinking like reading newspaper articles.

Static images including photographs are important to discourse analysis. I concentrate on attributes, salience and setting as methods of perception, looking critically at the composition and structure of the images and how they reinforce written reporting or not. Salience in images discerns what is being foregrounded and/or backgrounded and the relevance this positioning has on highlighting, clarifying/contextualizing and synthesizing the written text of the articles these images accompany. Systematically analyzing images helps to determine their relationship to the written material, particularly how they support or obfuscate meaning.

## Chapter 4. Findings/Results

How do local context specific economic modalities influence language around climate change reporting in Santa Monica and Long Beach newspapers?

I find in this case study that climate change reporting takes shape differently under different economic models. Because both Santa Monica and Long Beach are subject to imminent danger - the real risk and consequences of climate change, the articulation of those dangers by the press in these localities should accurately report the consequences of climate change on the local environment. However, despite the understanding that these California coastal cities share the environmental consequences of extreme heat, sea level rise, and changing weather patterns from climate change, newspapers reporting is ingrained with dynamics of power derived from economic import and rhetoric. Using DA to analyze the differences in language, historic context and power relationships that inform the reporting perspectives about climate change, I compile articles into the locality specific themes for discussion.

### *4.1: Long Beach findings*

In the Long Beach context as mentioned in Chapter 1, the narrative and development of climate change discourse revolves around Long Beach's "economic engine" which describes the harbor port containing that is part of the largest cargo port in the nation. After careful scrutiny of the four Long Beach articles using MSD theory and employing discourse analysis, three core themes are evident: the minimization of risk, economic framing, and solutions to local climate change. These themes are recurring through all articles via textual or visual language. Additionally, these themes are not mutually exclusive, and through varying strategies reinforce the pivotal role of economics in all facets of Long Beach community.

#### *4.1.1: Minimizing risk*

In the Long Beach context, minimization of risk is a prominent and persistent theme. Through my analysis, I find that journalists use language, schema, and power (via agenda setting or topicalization) to undermine critical information from other actors outside of the port.

The article “Despite El Niño rains and deep snowpack state board extends mandatory water conservation” by Steve Scauzillo was published in the Long Beach Press Telegram on February 3, 2016. Throughout the article, Scauzillo undermines the need and risk of water conservation measures through language and the choice of quotes. The title of the article places a subjective view on the reporting of water conservation and its context within Southern California’s drought (December 27, 2011 - March 5th, 2019) (Leins 2019: n.p). By beginning with “despite” the journalist questions the validity of the following clause. The schema of the title structures contradictory facts against a state mandated policy that demonstrates Scauzillo’s perspectivization through his particular bias to information that implies that these measures to conserve water are extreme or unnecessary.

Scauzillo’s rhetoric and focus of the article continue to undermine risk by adding elements of comedy. For example, Scauzillo writes “Marcus joked about the fact that El Niño fueled storms have showed up more often in Northern California. ‘I think (Bill) Patzert should name that Blob,’ she joked.”(Scauzillo 2016: n.p) This epistrophe diminishes the authority of experts and can be analyzed with Van Dijk’s representation of the other as a linguistic approach that encourages the reader to ignore the validity of the state’s conservation strategy.

The largest, most detailed paragraph in the article focuses on how much water has accumulated in the storm season which detopicalizes the State Water Board’s

announcement that drought mitigation measures should continue to be enforced. The schema used in this strategy repeats its pattern throughout the article where the journalist is pursuing an argumentative style in which his dominant viewpoint supersedes experts' data and opinions and at times provides viewpoints contrary to the experts' scientifically based claims which minimizes their ability to communicate risk. By asking critical questions about the historic context of Long Beach's collective knowledge about the California drought crisis, I note that Scauzillo employs his access to local power in shaping language and information to the readers by presenting a biased(topicalized strategy) perspective that problematizes information about the current state of water, and in turn climate change policy.

Noting that the water storage at Folsom Reservoir increased by 70,000 acre feet in day, Scauzillo states that "The reservoir is 1 percent above its historical average." (Scauzillo 2016: n.p) He structures the paragraph with positive attributes that support his focus on the apparent surplus of water rather than the climate change induced crisis the state government is attempting to mitigate. Detopicalizing the expert viewpoints allows the journalist to obfuscate the findings that the state is still at risk from the ongoing drought. This is also evident in the visual language included in the article.



*Figure 2. Despite El Niño rains and deep snowpack state board extends mandatory water conservation” by Steve Scauzillo (Scauzillo 2016: n.p)*

Included with the article is an image of a water spicket watering a lawn and sidewalk on a residential street in Long Beach (figure 2). The image subject of a single-family home runs counter to the information provided in the article that suggests usage is a city level issue. Removing agency from the resident and thus the reader diminishes their connection to the information and situates them against state that is regulating the water. Inclusion of this image creates a contested power dynamic where the journalist/newspaper aligns itself with the sovereignty of the city and its residents over that of the state even while the text diminishes their power to make informed individual and/or collective decisions about the greater impact of water conservation on the region. This image compounded with the presentation of counterfactual textual information disrupts the reader’s conception of the current climate change situation and minimizes the risk through the author’s disbelief of the given situation.

Melissa Evans's Long Beach Post article "The deadliest consequence of climate change is hotter weather" (2019) recalls the historical 2015 Long Beach power outage as a metaphor for future events in the new context of climate change. Evans describes the difficulties seniors had in calling for help and keeping medicines cool during that outage and mentions that many Long Beach residents did not have enough water to drink.

The 2015 power outage was caused by equipment failure not climate change. Evans conflates electrical power concerns with heat to connect the reader to experienced events that communicate the consequences of power failure which disrupts the reader's ability to fully comprehend the risks of climate change on their local environment.

Employing an anaphora, the rhetorical device in which a word or expression is repeated at the beginning of a number of sentences or phrases (Merriam Webster Dictionary 2019: n.p), Evans imposes the superlative in the article. "The deadliest catastrophe of climate change is not fires, nor hurricanes. It is not expensive coastal homes buckling to the power of wind and water" (Evans 2019: n.p). In the following paragraph she quotes California climatologist and oceanographer Bill Patzert, "It's heat waves" (Evans 2019: n.p).

After inciting fear in the reader, Evans uses the City of Long Beach Climate Change and Adaptation Plan to spell out the forecasted changes in average temperature for Southern California. Then she reverts to her fixed agenda with two one sentence paragraphs: "Simply put, the heat will impact more people than any other consequence of climate change,"(Evans 2019: n.p) followed by "And it kills."(Evans 2019: n.p) The first anastrophe is unproven, the second is imagined through a dialectical lens.

In the next paragraph, Evans states that 30% of the world's population lives in areas that experience excessive heat. She pursues an "us versus them" strategy by silencing millions of people who manage to stay alive in high heat areas. She collectivizes her

audience as white and first world by including statistics of how many Europeans (70,000 in 2003) and Americans (740 in Chicago in 1995, and 163 people in Los Angeles in 2006) have died in recent heat waves (Evans 2019:n.p.); despite the fact that more people survive in excessive heat than live in Europe (10% including Russia) and the United States (4.4%) combined. Elevating the experiences of these developed nations over “others” tells readers that the problem she has laid out is significant and specific to them (Evans 2019: n.p) and diminishes the agency of those others.



*Figure 3: Heat waves come off the pavement at bicyclist ride along the beach bike path in Long Beach (Cordova, 2019)*

In keeping with the contradictions that permeate the article, the image (figure 3) that accompanies it is of a white man in bicycle clothes foregrounded and riding a bicycle along the beach boardwalk, with the city of Long Beach in the background. Heat waves are visible all around him, but the danger of the deadliest impact of climate change is in no way conveyed by the rider or the larger composition. The image does communicate an imagined power to minimize the risk of climate change by following the leadership of

white American patriarchy who seem to take the excessive in stride, implying that the crisis is easily mitigated.

Other Long beach articles written by different journalists employ the same strategy of undermining and disbelief that minimize the risk of climate change. For example, the article “Long Beach Sounds Off on Climate Change,” by Louis Casiano appears in the Long Beach Press Telegram on June 2, 2018. The title uses the rhetorical device of personification to give the human action of “sounding off” to an abstract and amorphous thing, in this case the city of Long Beach. Typically, when people sound off they are expressing opinions in loud, often unreasonable ways. In this context, the people of Long Beach that are interviewed for the article are framed as uninformed and ignorant of climate change and mitigation efforts that are grounded in science.

Resident suggestions begin the article and are listed without agency: “Ban plastic straws. Switch to renewable energy. Increase parking fees” (Casiano 2018: n.p). Using anastrophe for dramatic effect, these suggestions go from reasonable to outlandish, “And there was even a suggestion to move to flying cars with zero emissions” (Casiano 2018: n.p). This dehumanizing stance is supported by the next sentence “Ideas from residents flew hard and fast” (Casiano 2018: n.p). The use of this hyperbole further alienates the contributions of residents to the public discourse about climate change. “Hard and fast” is a metaphor for a dogmatic approach that in this case implies unreasonable, but unchanging conclusions about climate change.

The article uses an “us versus them” strategy where Casiano’s perspectivization caters to ideological manipulation in which citizens are aggregated to a collective whose opinions and understanding are undermined and dismantled despite being noted as gathered from the city’s first community outreach effort about climate change.

In another paragraph of the article, Casiano cites an opinion of a city official that notes Long Beach “could experience increased flooding, extreme heat, more rainfall and poorer air quality” using the modal verb “could” to diminish risk perception by implying that there is a possibility that climate change might not come to Long Beach. Two paragraphs later the same official is quoted as saying “Even if we stopped emitting everything tomorrow, between now and 2050, pretty much, it’s going to happen...” (Casiano 2018: n.p). The contradiction of the official’s language minimizes the reader’s relational proximity to the city the official speaks for as well as undermines the confidence in the consensus of the scientific community that climate change mitigation is probable.

Residents bring legitimate concerns to the meeting that the article notes but fails to include any feedback from the city. The writer breaks up the quotes from the residents into one sentence anastrophes that dramatize and mitigate the impact of their concerns. Each quote begins with a reasonable concern about climate change and suggestions to address and are contextualized by information about the resident, for example, the chair of the Sierra Club. However, each person’s first quote is followed by another quote that diminishes the credibility of their contributions:

Long Beach resident Sokha Ny, 27, wrote down suggestions at Saturday’s meeting, including moving from fossil fuels to clean energy sources.

“Our beach right now is not even being used,” Ny said. “Imagine if we had wind turbines right by the beach and utilized the impacts of the waves. It’s all free. Why aren’t we doing that?”

Nicolas Zart, 52, ...said the city should work with the Port of Long Beach to curb air pollution coming from cement and freight trucks, which can negatively affect poorer communities in the city.

I'd like to see a central point where we talk about quality of life," Zart said. "We're diving into the deep problems like social vulnerability. How can we quantify something like that?"

Gabrielle Weeks, a Long Beach resident and chair for the Sierra Club's Long Beach region, said the city needs to get out of the oil-drilling business.

"It's a little disingenuous," she said. "It's like Jenny Craig selling doughnuts and fried chicken." (Casiano 2018: n.p)

The quotes present the residents as others and use schemata to challenge the validity and authority of their concerns and contributions as agents. The article positions these residents as outside of agency that lies with the city and its officials even when those officials contradict themselves. Two images (figure 4 and 5) accompany the article: one of residents filling out surveys and the other image depicts officials explaining sea level rise projection renderings to residents. In both images, residents are captured from the back or side which further positions them as others. Obscuring their faces takes away the reader's ability to see themselves in the residents pictured in the photographs, limiting the ability to empathize with them as part of a collective sharing of risk and perceptions.



*(Figure 4. Climate Action and Adaptation Plan (CAAP) Open House in Long Beach Photo by Brittany Murray, Press Telegram/SCNG) (Murray 2018a)*



*(Figure 5. Guests view maps and engage in conversation during the city's first ever Climate Action and Adaptation Plan (CAAP) Open House in Long Beach Photo by Brittany Murray, Press Telegram/SCNG) (Murray 2018b)*

The article concludes with information that outreach efforts will continue to compile comments that will eventually be developed into a climate change mitigation plan for the city. The fact that the city doesn't already have a climate change plan even as the state and other localities are included in international level coalitions is not mentioned.

The Long Beach newspapers' use of topicalization, schema, visual imagery, and agenda setting contextualize a power dynamic in which the newspapers minimize specific aspects of climate change and its risks. In the case of the aforementioned articles, the newspapers focus on material and present actors with language that disenfranchises the Long Beach public as uninformed and ignorant. Journalists also elevate or topicalize a

position of authority that diminishes the importance of climate change mitigation for city residents.

#### *4.1.2: Economics*

Economic framing is substantiated by the inherent grounding of economics in larger society, positioning “time as money” or more specifically in relation to this study that everything has an opportunity cost, the cost of missed opportunities when one choice is made over others. This monetization of all aspects of society is represented in the Long Beach newspapers that consistently situate climate change discourse, mitigation and adaptation through cost. This cost is referenced as if readers should already know the real economic price of climate change, representing the journalists’ power to topicalize/contextualize important aspects of climate change through the lenses of power and money, and isolate or diminish the reader’s ability to grasp the true value of the human cost of the phenomenon. Climate change mitigation efforts are described in economic terms, so I do not separate the final theme in the analysis but include it in under this section of economics.

In addition to minimizing risk, the article “Despite El Niño rains and deep snowpack state board extends mandatory water conservation” by Steve Scauzillo frames water policies through an economic lens. For example, the extension of drought conservation provides a relief clause for the cities “that can show they’ve added residents or commerce” (Scauzillo 2016: n.p). This economic framing implies that there is a financial solution to the drought. Additionally, the article mentions that the state fines cities that disregard conservation measures. It notes of the three cities that overuse water: Redlands, Coachella Valley and Beverly Hills, only Beverly hills paid the \$61,000 fine, furthering insinuating that money can offset the effects of the drought and encourages excessive water consumption for those who can financially afford it. Redlands and Coachella Valley are relatively poor areas in hotter near desert climate zones in Southern California that need water but

can't afford the fines. Beverly Hills wants green landscape despite the consequences of misusing water against state mandates but has the financial means to overuse it. This economic framework suggests an implausible solution to the drought and the limitations of state efforts at conservation.

The article continues to position the argument of water conservation in economic terms, stating that Long Beach will receive a reduction in its conservation target by four percent even though few cities will have their targets lowered. Without extrapolating this reduction, and by removing the agency of the state to regulate policy and resources, the article obfuscates the financial impact of the Long Beach Port's use of water which minimizes the risk for the reader to associate water use to individual consumption.

Scauzillo ends the article by stating that the Water Board will revisit the mandatory water conservation after the snowpack is assessed, giving a final hyperbolic nod to the idea that conservation management is a wasted effort in the rainy season. This implies that one good rainy winter could mitigate climate change induced drought, which in hindsight proved wrong. California stayed in drought conditions for three more years.

The Long Beach Post article "The deadliest consequence of climate change is hotter weather" published in the News Section of the paper on April 22, 2019, uses the superlative form of deadly in the title to topicalize the risk of climate change, but also to fix her power to set the economic agenda about what is communicated about the phenomenon. While reviewing the Long Beach Port's plan to mitigate climate change, Evans notes that the Port of Long Beach spent \$670,000 planting 6000 trees around the poorer Long Beach neighbors that border the port, demonstrating the port's largesse in helping to mitigate heat and unsaid by Evans, air pollution (Evans 2019: n.p). Long Beach is known to have poor air quality, yet the port of Long Beach's role in polluting the air near its operations

continues to be minimized even when the in 2019 Long Beach was ranked by the American Fitness Index as having the worst air quality in the nation (Addison 2019: n.p).

Like the article “Impact on Climate Change on Long Beach Port will be Profound” that appears in the paper on the same day, no mention is made as to how port activities and emissions contribute to climate change. Evans does continue the article in an economic framework noting that through a \$1.26 million grant from the California Department of Forestry and Fire Protection, Long Beach was able to plant an addition 4000 trees in poor neighborhoods, without questioning why the grant that was double the amount the port contributed, yet yielded less trees (Evans 2019: n.p).

The economic positioning of climate change mitigation continues with the schema “The most significant adaptation to rising temperatures, however, is the one already in use: air conditioning. ‘What used to be a luxury has now become a necessity,’ Patzert said ‘Without air conditioning, a great deal of Southern California would be unliveable,’ he said. ‘Not in 2050, not in 2100, but today’ (Evans 2019: n.p). The suggestion that air conditioning is the solution to climate change contradicts Evans’ introductory warning about what happens when the power grid is taxed and compromised. She does cite SoCal Edison’s \$80 million equipment and network upgrade (more monetary solutions) to the power grid, however, encouraging people to consume more electricity (Evans 2019: n.p) is counter intuitive to reducing the impact of climate change. The only instance Evans doesn’t monetize a solution is her mention of the 16 generators Long Beach purchased with a grant from the Federal Department of Homeland Security.

“Impact on Climate Change on Long Beach Port will be Profound” was published in the Long Beach Post, in the same News section on the same day as Evans’ piece. Jason Ruiz’s title uses the word “profound” to suggest that the impact of the phenomenon of climate change is beyond comprehension. This scare tactic falls under van Dijk’s

theoretical framework of sociocognitive discourse analysis where discourse is filtered through collective perceptions. If the local paper posits that the impact of climate change will be profound, readers use a collective understand and their own deeply felt experiences to interpret that the result is something frightening and unmanageable.

The article begins by acknowledging the risk of climate change sea level rise but minimizes it using the modal verb “could” and states the “mildest sea level rise” as a parameter for the reporting. Use of the modal verb suggests possibility rather than probability despite the IPCC report and the Port’s own assessment that the article references (Ruiz 2019: n.p).

The first sentence of the next paragraph also employs “could” when the journalist states “The destruction or inaccessiblity [sic] to these and other critical assets could have significant impact on the local and national economy: the Port employs some 30,000 workers and imports and exports about \$180 billion in cargo each year” (Ruiz 2019: n.p). Quantifying the economic power of the port early in the article (second paragraph) both sets the tone of the article and creates a framework with which to understand the profound economic effects climate change will have.

Perspectivization strategy is employed to explain the profundity of the impact on the port in economic terms, for example linking the coastal impact with the cost consumers must incur to pay for goods. Ruiz writes “Experts agree: the impact of climate change on the nation’s ports will be profound. These coastal facilities are a factor in how much consumers pay for goods, and whether necessities like food, furniture and electronics are available at all” (Ruiz 2019: n.p).

Subsequently, Ruiz uses both schema and anastrophe to exemplify the economic power of the port by stating in a one sentence paragraph “The twin port complex in Long Beach and Los Angeles is the largest in the nation” (Ruiz 2019: n.p). He goes to note climate

change impacts will be evidenced in “access roads could be covered in water; rail lines, either from heat or from ocean water inundation, would be unusable; electrified infrastructure such as cranes could stop working. The piers themselves, particularly older piers in the center of the sprawling 3,000-acre Long Beach complex, would be swallowed by sea and flood water, leaving them inaccessible to trains and trucks” (Ruiz 2019: n.p). Ruiz chooses to topicalize the focal points of damage to the port as economic impacts, detopicalizing and silencing any reference to humanitarian consequences.

The port is not automated, yet the journalist gives it agency while disappearing any human factors from the environment. Stating that the port will be inaccessible to trains and trucks without human drivers implies industry and gives primacy to the economic considerations of climate change over humanitarian significance beyond consumer access to goods.

The article uses functionalization where social actors are referred to by their function. Here, “workers” are never given any positionally or agency aside from being aggregated into a collective identity through the port. This particular device condenses the agency of this collective into an inanimate thing and entrenches in economic terms humanitarian aspects and concerns such as jobs, livelihood and a home. Workers are seen as dispensable and become actors only in their capacity as employees and in their ability to lay sandbags against immediate sea level rise as the port’s proposed less expensive solution for climate change mitigation. The author personifies the port as having a plan that “could hold off” sea level rise with this collective labor pool as opposed to mitigating or adapting proactive strategies to reduce the port’s carbon footprint and lessen its pollution output.

Later in the article, Ruiz references the port’s acknowledgement of historic severe inclement weather that impacted port operations but is addressed through its economic resources (Ruiz 2019: n.p). The discussion of Hurricane Maria in 2014 that damaged a

break water that is described as “critical to protecting massive cargo ships and sensitive equipment surrounding the port” (Ruiz 2019: n.p). This topicalization focuses both the information presented and the reader’s attention to the breakwater as a protective measure for the port rather than the city of Long Beach.

Ruiz notes that the breakwater is a “source of much contention among surfers because it muted the ocean’s waves” (Ruiz 2019: n.p). Interestingly, the only reference to human agency aside from port and government officials cited in the article is given to surfers, who, through sociocognitive and dialectal discourse analysis amplifies surfers’ positionality as the other, concerned less with economic sustainability (the focal point/topicalization of the article) and more with catching waves. The implied collective understanding of surfer culture is that they don’t work, they smoke pot and ride the waves. While surfers are synonymous with a California coastal lifestyle they don’t contribute to the greater society. Personifying the port as being the largest and most powerful agent in the city suggests to the reader that its concerns are paramount to the quality of human life, particularly for those who have no “value”.

The next paragraph further describes the damages of Hurricane Maria to the port. “Two barges almost sank...”(Ruiz 2019: n.p) and in another standalone paragraph “Shipping operations were completely halted at two terminals: Total Terminals International and Crescent Terminals.”(Ruiz 2019: n.p) Focusing once again on the damage done to the port, and how the economy was also damaged topicalizes the information for the writer’s agenda that chooses to ignore the factors of the storm on other areas of the city and doesn’t present subsequent information for other viewpoints or perspectives about this “devastating storm” which only affected the economy as posited by the author.

Topicalization is evident when Ruiz uses an expert’s statements to limit the effects of climate change on the port. “Fawcett [associate professor at USC’s Price School of Public

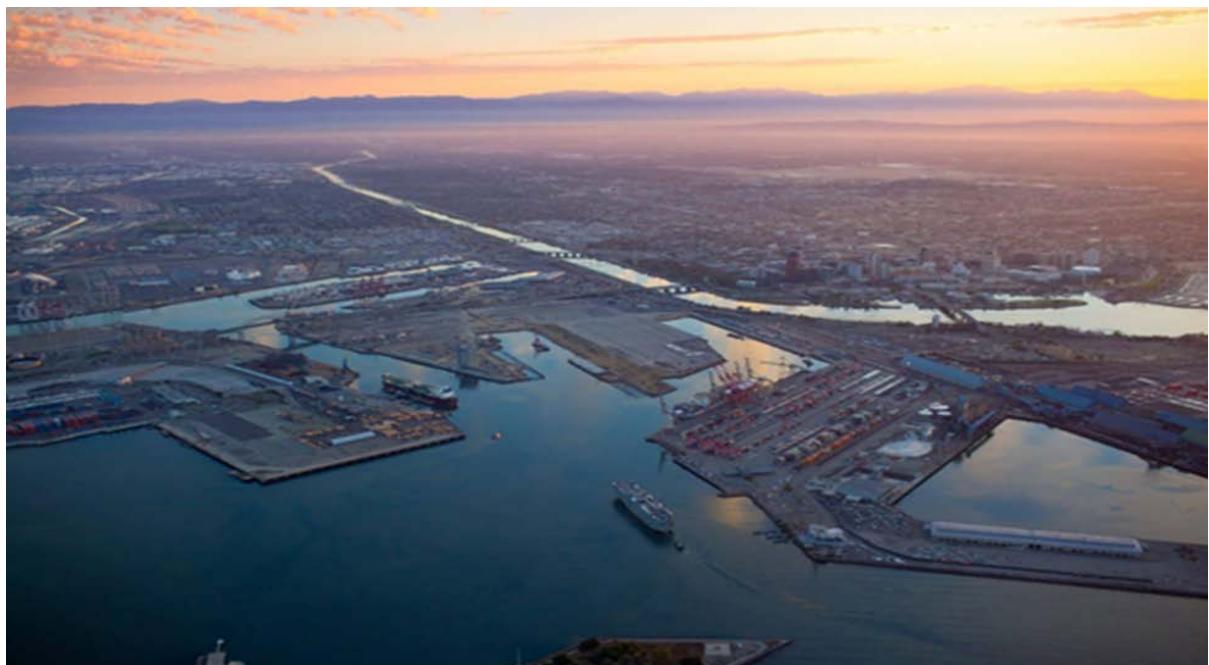
Policy] said the impact of sea-level rise though could likely be navigated by port complexes like the one in Long Beach because the rise will be gradual and the ports will have time to plan for it.”(Ruiz 2019: n.p) Ruiz uses metonymy in substituting verbs typically used in addressing climate change like mitigate for “navigate” - something the port excels in which counters the expert testimony with the expert skills already known and demonstrated by the largest port in the United States.

Then Ruiz uses Fawcett’s language to diminish the human understanding of climate change and the port itself. Fawcett states “What I think is a little bit disturbing is the public tends to think of this all happening at once and it doesn’t,” Fawcett said. “It happens bit by bit by bit. I think both the ports and the terminal operators are aware of it on a monthly basis, and as things start to change, they’ll start to improve their infrastructure” (Ruiz 2019: n.p). With the exception of surfers (read miscreants) the article never mentions the public, so to insert a reference to the public’s ignorance of how climate change works, beyond their own lived experience, further removes the humanitarian consequences for that public. Personifying the port and aligning it with elites in the hierarchy of the US neoclassical economic system eliminates the credibility of the public to conceptualize climate change, negating the power of public commentary and perspectives.

Fawcett’s expertise is used to affirm the port’s ability to address the profundity of impact of climate change. “He’s confident the ports will be able to respond to climate change both because the changes that are projected by experts are going to occur gradually, and because of the financial resources of the ports and terminal operators which will allow them to fortify their operations over the coming decades”(Ruiz 2019: n.p). Although the article never justifies its use of the word profound, the audience is asked to table its collective understanding of the word to believe in the economic prowess of the port to solve this complex, yet ill-defined problem.

To end the article, Ruiz reasserts the economic framework of climate change mitigation, quoting Fawcett “I’d rather be in the Port of Los Angeles or the Port of Long Beach than wanting to own property on Balboa Island,” Fawcett said. “If you own property on Balboa Island right now you’ve got a big problem.”(Ruiz 2019: n.p) Again, having stated that the impact of climate on the port will be profound, the expert’s use of hyperbole displaces the concerns of climate change on Long Beach, diluting the perception of risk in the Long Beach context, and positing that risk is greater in other California coastal cities, even while Balboa Island is only 32 miles (52 km) south from Long Beach.

Finally, Ruiz includes several images: the first (figure 6) is a bird’s eye view of the port in the rising sun with the downtown Long Beach dwarfed by the port and the San Gabriel Mountains in the background. The mountains invoke the patriotic song America the Beautiful, specifically the lyric “purple mountain majesty above the fruited plains” (Bates, 1895). Here the bountiful plain is the port, the economic engine of Long Beach and the nation.



*Figure 6: Photo courtesy of the Port of Long Beach a (Port of Long Beach, 2019)*

The second image (figure 7) captures four pelicans at rest on the ocean surface in the Long Beach harbor. This image has nothing to do with the title or context of the article, instead it misdirects the reader into passivity and a false sense of calm with two similar implications: if nature is unaffected by climate change, we should temper our perception of its risk; and/or because of the economic strength of the port which can address and mitigate climate change, these sea creatures will be undisturbed by climate change impacts. These photos are provided courtesy of the Port of Long Beach and are components of the port's branding and outward facing image. They connote topographical strength and harmony with the environment, supporting the claims made in the article that despite the deep and unfathomable impact of climate change, the port can and will meet the challenge and endure.



*Figure 7: Photo courtesy of the Port of Long Beach b (Port of Long Beach, 2019)*

#### 4.2: *Santa Monica findings*

In the context of Santa Monica, the themes that emerge through the analysis are collective mitigation or community good and the economic framing of the city's assets that must be protected.

##### 4.2.1: *"Collective mitigation"*

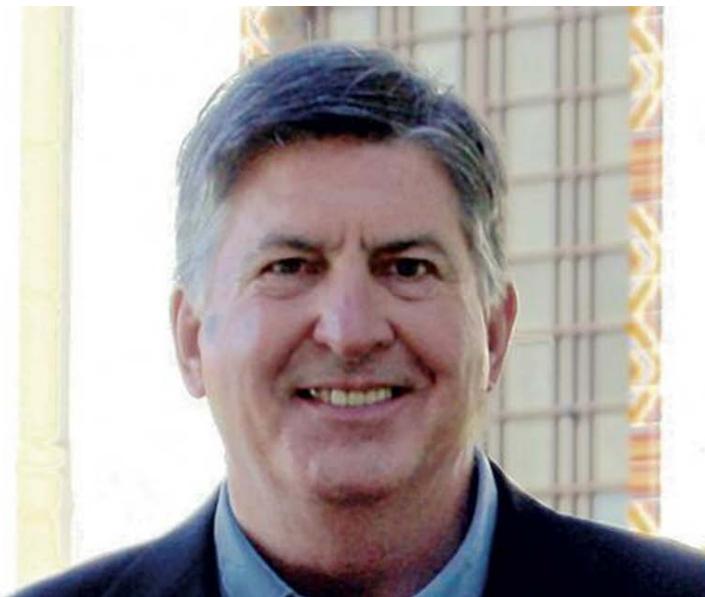
The article "Santa Monica demonstrates impact on addressing, fighting climate change," published in the Santa Monica Mirror on December 4, 2015 was published one month after the Compact of Mayors was declared that included Santa Monica's mayor. Santa Monica is situated in the macro context of local climate change mitigation by utilizing quotes from Santa Monica's mayor and other key representatives from international climate change networks.

The scheme of the article uses quotes that highlight a collective coalition proactively working to mitigate the effects of climate change on global, national and local levels.

Like other Santa Monica articles, the Mirror positions the collective efforts to build momentum to not only reduce carbon emissions but incentivize other cities/mayors to join the compact by changing policies and committing to climate change mitigation. The use of words including "today", "already" and "qualifying the benefit" demonstrate the unnamed journalists position on the benevolent and forward-thinking city government. The article cites the mayor's belief that the Compact of Mayors has already provided "significant impact" to curbing emissions and combating climate change. The coalition operates using the science from the United Nations Climate Summit and the Secretary General's Special Envoy for Cities and Climate Change (Mirrormmg 2015: n.p.).

The article topicalizes aggregation strategies by noting the enthusiasm and the assumed success on the coalition's realization of the 2020 climate change mitigation goals. Through language collectivizing those affected, namely "our," "friends" and

“partnership”, the journalist endows a belief that cooperation in this collective is the pathway to a more sustainable future in which mitigation efforts are successful because of the actions of many united as one.



*Figure 8: Santa Monica Demonstrates Impact On Addressing, Fighting Climate Change (Mirrormmg 2015: n.p)*

Santa Monica’s Mayor Kevin McKeown is pictured in the article, smiling and friendly. The portrait frames McKeown’s bust, his eyes and visage dominate the field of view. He personifies the city and is synonymous for the human efforts of fighting climate change. McKeown’s images is equated to power, not only as mayor, but as the progressive white male patriarchy that governs California. His smile denotes his openness and willingness to work, while his white hair is a symbol of sagacity, insight and judgement.

In the Santa Monica Daily Press article written by Madeleine Pauker on March 12, 2018, “Drought, flood and smog: Climate Plan contemplates environmental challenges” details coverage of the month-old City of Santa Monica’s Climate Action & Adaptation Plan (CAAP) in which the city outlines how it will shield residents from some of the impacts of climate change” (Pauker 2019:n.p).

The title uses a strategy of explicitly listing the dangers of climate change as “Drought, flood and smog,” immediate risk that get the reader’s attention with words that elicit emotion and reaction. The article’s language and discussion of these hazards doesn’t seek to engender fear from the audience, but rather to provide objective information about how these phenomena “will” impact society and how the city through community engagement has a plan to mitigate these risks.

The first half of the article is composed of one sentence paragraphs. The schemata alert the reader to the importance of the information in each sentence. The article frames risks as something that “will” happen, leaving no probability or vagueness in the language or meaning. Pauker states that the information also comes directly from “city hall,” which is a relation model to associate the reader - normally a Santa Monica resident based on the circulation of the paper - to the proximity of power structures engaged in the issues. The use of “city hall” over “government” denotes city hall as something more closely associated with the public, effectively familiarizing the public with the source of information and suggestions on how to mitigate risk. Additionally, the objective of the “city plan” is defined to “shield” residents from the impact of climate change. Through community engagement and feedback the city has developed this plan which comforts the reader with the knowledge that the city is engaged in protecting them, including them in the discourse and in the power dynamic that represents their interests through democratically elected city government.

The article also notes the cause of carbon emissions from the city as “Transportation comprises the bulk of Santa Monica’s current emissions” (Pauker 2019: n.p), which it actively seeks to address. The explicit tone of the article presents the social impacts, community knowledge and what this implies for the lives of the groups the article outlines to be especially vulnerable to specific risks of climate change. For example, “[it is]

particularly important to protect vulnerable groups, such as homeless or elderly individuals, from high heat days and the hot-weather diseases that climate change will propagate" (Pauker 2019: n.p). Pauker notes that the city has evaluated the risk to specific demographics and has taken necessary precautions in order to defend or "shield" these residents. The article also utilizes anastrophe in one-line sentences for effect. For example:

"Taken as a whole, the plan is really significant," said Dean Kubani, the City's chief sustainability officer. "This is a goal that requires a transformative change in our society." "Santa Monica's deep, wide beaches will help protect the city from rising sea levels," Kubani said, but the City will still need to mitigate the impacts of flooding on the coast. While the City works to prevent seawater flooding, it will also be bolstering Santa Monica's freshwater water supply to be more resilient to regional droughts" (Pauker 2019: n.p).

Every one of these anastrophes present information crucial for the public understanding that focuses on how the risk of climate change will transform society.

The article employs an aggregation strategy in referring to the community as a collective through the language "we", "the city", "residents" and the "entire community." The city and Pauker in her coverage reference how to handle specific climate change risk, where the "we" is inclusive of "homeless people," the "sick" and the "elderly." The article implies that community is also given power to choose to follow this plan and use the resources the city has outlined as best, stating "residents have the option to stay with the slightly cheaper Southern California Edison (SCE)" (Pauker 2019: n.p). Residents have options or choices in this instance, and none of the information is presented as authoritative, only as urgent and critical.

Pauker structures the article to argue for the collective identification in society of all residents, but in the last paragraph the “us versus them” language gives power to the citizens to “correct mistakes” that “we” the City Council may have made in the efforts to construct this legislation. Through language, the city officials are humanized and have parity with the general public.



*Figure 9: Drought, flood and smog: Climate Plan contemplates environmental challenges (Pauker 2019: n.p)*

Figure 9 presents a collective group on the Santa Monica pier that appears to be dancing despite the rain and near flooding of the platform. The visual imagery seems to suggest that through collective efforts people can overcome or find strength and even joy in times of crisis. It is visual hyperbole to suggest the benefits of the collective in the face of inclement weather caused by climate change.

The Santa Monica Mirror published “A SoCal First: Santa Monica Pier Installation Helps Public Visualize Climate Change: The Virtual Reality ‘Owl’ offers a glimpse into future

sea level rise, and what to do about it" on August 8, 2016 that presents information about climate change in an objective manner. The journalist's viewpoints are not the focal point nor are they utilized in the article, instead, the article uses perspectivization of the collective (aggregation strategy) (KhosraviNik 2010: n.p) which posits that Southern California, as a whole, needs to address the issues of climate change together. The argumentation in the language of the article uses explicitness, because of the societal and progressive political values ingrained in the micro context Santa Monica and the macro region of Los Angeles County. The Los Angeles and Santa Monica mayors are some of the most progressive in the country and have used rhetoric about their commitment to the Paris Agreement tenets, including reducing carbon emissions and pursuing mitigation and adaptation efforts at all levels.

Climate change is also posited as something serious and dangerous that society needs to know about. This message is framed in an inductive manner, as the article provides information and a way for the community to engage with the concept of climate change through the owls that will give the public realistic imagery of its effects.



*Figure 10: A SoCal First: Santa Monica Pier Installation Helps Public Visualize Climate Change: The Virtual Reality ‘Owl’ offers a glimpse into future sea level rise, and what to do about it*

Although the city relies on the power of visual imagery to connect viewers to experienced reality, the image the newspaper includes is relatively benign. The Santa Monica beach-front is captured from the perspective of the photographer standing on the Santa Monica pier (figure 10). Both places have been cited as tourist destinations that contribution to the vibrancy and economic stability of the city.

Santa Monica Mirror published “Climate Change in Santa Monica” by Sam Catanzaro on October 18, 2019. The first paragraph states global positions of climate change action, situating Santa Monica in the larger, global context. Using Fairclough’s dialectal relational approach, I recognize the construct of Santa Monica in the discourse of environmental social justice as it is actively pursued by the IPCC and the United Nations. This micro to macro relationship denotes shared power and responsibility that signals to the reader that both Santa Monica and the actions it takes to mitigate climate change are part of a global whole.

The journalist quotes “‘there is no documented historic precedent, ‘said IPCC said in their report ‘Some of the most affected areas are small islands, megacities, coastal regions and high mountain ranges.’” (Catanzaro 2018: n.p). The journalist’s use of this schema emphasizes the historic nature of the phenomenon of climate change. Looking through the lens of Wodak’s historical approach, the IPCC can be read as stepping into the power vacuum created by the unprecedented crisis, creating new power structures with which Santa Monica aligns itself. This locationality tells the reader to pay particular attention to the priorities and agenda of the political leadership and to view the reporting through a collective understanding of risk.

Catanzaro reports that “The Santa Monica City Council took steps this week to address the impacts of climate change when at their regular meeting on Tuesday, October 9, unanimously approved the Local Coastal Program (LCP) Land Use Plan at last night’s meeting – the first update to the plan since its adoption in 1992” (Catanzaro 2018: n.p). Stating the update was the first in 26 years contextualizes both temporality and political significance of climate change mitigation.

### *Economics*

Catanzaro structures the impact of climate change through an economics framework, noting that the Santa Monica City Council plan “will support a coastal development permit process that aligns with our sustainability and mobility goals” (Catanzaro 2018: n.p). Those goals of economics prosperity are presented as relational to climate change mitigation.

The economy is critical to Santa Monica as a world tourist destination and the beach is Santa Monica’s largest most financial and environmental resource. The article details the most important elements of the new plan/policy as “Santa Monica to plan strategically to protect beach infrastructure and coastal assets” (Catanzaro 2018: n.p). This use of metonymy substitutes the assets for economy and protecting the beach is synonymous with ensuring economic sustainability of the city through its tourism.

Catanzaro concludes the article with assurance by the city that future permits of land and coastal economic and infrastructural developments willed be filtered through the climate change coastal and land use plan. This guarantee strengthens community compliance with the political and social power structures of the city and bolsters the economic importance of coastal “assets”.

Finally, the image accompanying the article is of a flooded Santa Monica beach (figure 11). The guard shack is inundated with water, and water reaches the parking area that is

typically 300ft (91meters) from the water's edge. Although the article states that Santa Monica has not experienced sustained drastic sea level rise, the image reminds readers that storm surge is comparable to the effects IPCC predicted sea level rise. This gives measurable perceptions of risk that can be perceived through verifiable historic experiences and used as a tool for collective memory, knowledge and compliance with the city's efforts to mitigate climate change.



*Figure 11: Climate Change in Santa Monica (Catanzaro 2018: n.p)*

## **Chapter 5. Conclusion/discussion**

This paper has built on the theoretical foundations of MSD and relevant literature to answer the question: How do local economies in California coastal cities influence local newspapers' construction of climate change discourse for the public? And the following sub question: Does newspaper reporting structured through the lens of the economy convey the environmental/geographical risks and impact of climate change?

By critically examining newspaper articles from Long Beach and Santa Monica with discourse analysis I have found that different localities report on climate change with different language devices and structures (textual and visual) that support van Dijk's theory that ideologies are injected into and constituted by discursive strategies including perspectivization, argumentation, and rhetorical devices (Van Dijk 2000: n.p). In this case study, economic power and progressive politics about environmental phenomena are the ideologies with the greatest influence on the newspaper reporting from the respective cities.

The construction of language in these localities depends on factors such as whether or not climate change mitigation efforts do or do not infringe on economic capability. The findings indicated that the positionality of economics in these California coastal cities and in the dominant neoclassical conceptions of society at large allow for economic values and needs for continued growth allows the potential for newspapers to manipulate facts and/or language about critical climate change information. This is done by diminishing climate change risk for economic stability and in turn social order. For instance, Long Beach Press Telegram and the Long Beach Post rarely position climate change as a human issue or discuss its environmental impacts on residents, and newspapers employ discursive and rhetorical devices that detopicalize views, relevance and positionality to power,

and topicalize the economy of the port as a means that enable it to withstand the onslaught of climate change's environmental crises.

Long Beach newspapers use an argumentation strategy to mitigate perspectives considered as other, giving primacy to local power structures that frame climate change through an economic lens where the city can afford to "delay," until the effects of climate change are infringing on the port's operational capacity. the context of Long Beach language around climate change is filtered around the economic engine as the ports emissions by way of shipping are never referenced or commented on by those who construct the discourse. Only through de-topicalization of the public's positionality in society is the port's emissions or accountability to the climate change phenomenon question. This follows van Dijk's "us versus them" approach (KhosraviNik 2010:59) that separates Long Beach into two distinctive groups: the port/city government and the general public/readership by which port and government actions are reported through positive lens which promotes localized structures of power.

The absence of dialogue or information about the port's accountability as a contributor to climate change phenomena speaks volumes about the position of producers of discourse that disseminate it through newspapers. Considering the historical context of the city's lack of mitigation efforts or any climate change strategy (until 2019), there is a lack of discourse from Long Beach newspapers that addresses the sub-question about environmental impacts that gives agency to the natural world or to residents.

Whereas, Santa Monica has a history of action in climate change mitigation and adaptation, and the Santa Monica Mirror and Daily Press build on that progressive and proactive narrative by utilizing language that enables and normalizes the culture of mitigation actions. The use of aggregation strategies complements the entrenchment of SaMo's narrative of mitigation and adaption in the larger discourse of climate change. Newspapers

articles reference intertextual and inter-discursive knowledge by citing and engaging with concepts, information and language produced in the SaMo lexicon of climate change and progressive politics and framed by the public context in which this community engages.

As a result, SaMo newspapers fluidly adopt policy language rooted in the literature and science from the IPCC and international climate networks in order to best prepare the readership for the “advent of sea-level rise” and other climate change impacts. These actions align the dissemination of climate change information with micro and macro power structures in order to best guide the support of and compliance with city policy.

SaMo’s economic structure is fuelled by the beachfront and its immediate environment. This support facilitates governance policy and relational newspaper reporting to focus on the environment. Because the beach is the city’s largest asset, localized language about climate change mitigation is rooted in macro contexts that propagate environmental values and knowledge about the climate change crisis.

#### *Pedagogical implications*

This paper provides a context for discourse analysis and MSD theory where students can engage in analyzing a variety of rhetorical devices, social ideologies and systems as well as debates about the dynamic, multidimensional relationship between language, society and power (economic and political). This case study also highlights the importance of climate change discourse in micro and macro contexts and demonstrates that it cannot be built or maintained in a vacuum but exists as an intertextual discursive knowledge system.

#### *Recommend relevant policy and actors*

Additionally, this study frames how future efforts to propagate climate change information and mitigation requires nuanced approaches that instead of being top down (macro to micro), employ a ground up, locally and economic modality specific methods. This points to an understanding that there is no general framework to understand and mitigate

climate change but requires contextualized approaches that account for economic structures (social systems), language, media (producers and disseminators) and audience (receptors).

*Future research*

Future research will expand the scope of the case study, regionally and across similar coastal cities throughout California and beyond. This analysis can also extend to other regions with topographical environments that are impacted by climate change. It is beneficial to include deeper analysis of visual language and its relationship to perceptions of risk, economic structures and power in text heavy media reporting. Finally, it is important to research if localized language from newspapers produce climate change mitigation action by way of mixed methods analysis.

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