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Framing economic inequality in the news in Canada and the United States

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ABSTRACT News frames are the interpretations and emphases in the presentation of complex issues that privilege certain understandings over others. We take the case of the framing of economic inequality in the news in order to make an empirical contribution and a conceptual contribution. The framing of economic inequality in news coverage is important to understand as news frames can shape public opinion and subsequently policy responses to inequality. There is no research we are aware of that documents how economic inequality is framed in the news. We compiled a dataset of 2109 news articles, published between 2000 and 2014, about economic inequality, and conducted a detailed content analysis. Empirically, we document how inequality was framed as an issue, specifically whether it was framed as a social problem with negative consequences, and what its causes, consequences, and solutions were. Conceptually, we also address an important gap in knowledge about the determinants of news frames. Research about how news frames are shaped by contextual factors in the production of news is uncertain about which factors matter and to what extent. The dataset has a set of features that allow us to simultaneously examine a number of potential determinants of news frames. Our data allow us to compare the relative influences on news coverage of economic inequality of (1) national context, (2) the political leaning of newspapers, (3) changing economic conditions, and (4) social movement efforts. Of these four factors, we find that only the Occupy movement influenced the volume of attention and the identification of economic inequality as a problem with negative consequences. National context, political leaning, and change in economic conditions had much more limited, or no, influence. Following the emergence of the Occupy movement, attention to economic inequality increased and remained higher than before. However, despite the clear effects of the Occupy movement on problem identification, news coverage of the causes and solutions to economic inequality did not significantly shift. We, therefore, find that social movement activity had the clearest influence on news frames, but the observed effect in this case was superficial rather than detailed.

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Introduction

cholarly work on news framing has a long tradition across a range of disciplines. This work has covered a wide variety of topical issues, and it continues to inspire empirical investigations and conceptual innovations (Oleschuk, 2020; Shah, 2019). Studies of news framing are valuable in part because they identify the ways that complicated social issues are presented to the general public; framings select, emphasize, and naturalize particular definitions of, causes of, consequences of, and solutions to issues that are identified as problems (Entman, 1993). Through knowledge of prevalent news frames, we can understand how particular interpretations and understandings of important issues inform public discourse on those issues. When we understand how issues are framed, we start to better understand public opinion and policy approaches to those issues (Broadbent et al., 2016; Iyengar and Simon, 1993). In light of the importance of understanding news framing, scholars have turned their attention to revealing and documenting the media's presentation of pressing social problems (see Tewksbury and Scheufele, 2009).

The study of news frames has developed in-depth knowledge of the nature of frames (Scheufele and Tewksbury, 2006). However, the determinants of news frames remains an area of weakness. In a review article, Chong and Druckman (2007, p:117) write, "How frames in communication emerge continues to befuddle researchers". News frames are subject to a range of potential influences. For example, past research has examined the influence of the political orientation of news producers (Kim et al., 2010), nationally specific cultural repertoires (Benson and Saguy, 2005), the work of social movements (Ryan et al., 2005), and underlying social structural change (Misra et al., 2003). While evidence for each of these determinants exists, in order to increase our understanding of how news frames emerge, we need to study potential determinants relative to one another. In this article, we study multiple news frames determinants simultaneously to advance our understanding of the determinants of news frames.

We take news coverage of economic inequality as our case for pursuing our conceptual goal of comparing news frame determinants. Classical theorizing on discourses of inequality has argued that ideas about inequality are woven into everyday discussions in the public sphere, and especially within mass media. These ideas appear hegemonically (Gramsci, 1971), as natural and taken-for-granted, and they also subtly support a status quo where economic hierarchy is normal and inevitable (Horkheimer and Theodor, 2002). However, relatively little empirical attention has been paid to contemporary dominant discourses of inequality (notable exceptions include Kendall, 2011; McCall, 2013; and Streib et al., 2017), and there is no research we are aware of that documents news framing of economic inequality per se.

News framing of related issues such as poverty (Gilens, 1996; Kim et al., 2010), homelessness (Calder et al., 2011), tax cuts for the wealthy (Bell and Entman, 2011), welfare reform (Guardino, 2019), the economy (Kollmeyer, 2004) and unemployment (Iyengar, 1996) have been well studied. However, the framing of economic inequality-the fact that there is a gap between rich and poor-has not received the same attention. This is especially puzzling given that poverty (an important social problem) is largely understood in relative terms in Global North countries, specifically in relation to other people's wealth, rather than conceptualized in absolute terms. Moreover, a general trend in past research is to find that the implications of tax cuts, poverty, and unemployment for economic inequality are almost completely ignored. Given the potential for news frames to influence public opinion and public policy (Edelman, 1993; Entman, 2004), we need to build knowledge of the news framing of economic inequality.

In this article, we investigate how economic inequality was framed in the news in Canada and the United States between 2000 and 2014. While studies of the economics of inequality distinguish between wealth inequality and income inequality, we focus on the broader topic of economic inequality, which includes either wealth or income inequality or the combination of the two. This time frame includes key moments in the recent history of economic inequality in North America. We analytically leverage these moments, as well as differences across news sources in Canada and the US, in order to better understand why economic inequality has been framed in particular ways over time. While documenting the news framing of economic inequality is the empirical goal of this article, our data contain features that allow us to pursue a distinct conceptual goal of developing theory about influences on news frames. As many other studies have noted, news frames can vary. Although there are many studies of potential individual factors that shape how issues are framed in the news, our study design allows us to assess a range of factors simultaneously in order to understand their relative influences. We are thus able to extend our understanding of the constitution of news frames by comparing the different effects of four major influences on framing: (1) national context, (2) political leaning of newspapers, (3) changing economic conditions, and (4) social movement efforts.

In what follows we first review the literature on economic inequality, and we then review what is known about determinants of news frames. After describing our methods and data, we present our findings about trends in the dominant framings of inequality. We conclude with a discussion of the significance of the empirical findings for understanding public views of inequality, with special attention to the role of social movements in agenda setting. Our findings advance our understanding of the determinants of news frames through demonstrating the strength of social movement actors in this case relative to other determinants, while also demonstrating the ways in which social movement actors' influence on frames is powerful or weak.

The recent history of economic inequality

Economic inequality has, of course, a long history in both Canada and the United States. By all accounts, economic inequality was exceptionally high in both countries in the 1920s and 1930s, in terms of both income and wealth, and was exceptionally low around 1970 (Piketty and Saez, 2014; Saez and Veall, 2005). Since that time, levels of economic inequality have risen in both countries, with levels of wealth and income inequality approaching or exceeding the levels of the 1920s and 1930s (Fortin and Lemieux, 2015; Saez and Zucman, 2016). While there are debates regarding how to measure economic inequality, the majority of research is clear that levels are increasing in Canada and the United States, continuing into the second decade of the twenty-first century.

Although similarities exist between Canada and the United States, there are also important differences. Significantly, the degree of inequality in the United States exceeds that in Canada (Veall, 2012, p:1249). World Bank data reveal that the magnitude of the difference in inequality between Canada and the United States since 1990, as measured by Gini coefficients, is consistently about seven points, which is approximately the same as the difference between Canada and Denmark (World Bank Group, 2019) (authors' calculations). There are important cultural and political differences, as well. Canadian federal and regional politics have for many decades included the strong presence of a labor party with an explicit focus on class inequality (Eidlin, 2016) and Canadians have traditionally shown more class

awareness and readiness to identify as working class than Americans, as well as higher expectations for the government to play a central role in organizing the economy (Lipset, 2013). Thus, while the recent increases in economic inequality are an important similarity between the two countries, the degree of economic inequality and the salience of class inequality in political discourse, and the different expectations of the state, are important differences.

The recent history of economic inequality also must acknowledge the Great Recession, a period of reduced economic activity in, among other places, North America beginning in December of 2007 (Kalleberg and Von Wachter, 2017). The Great Recession is associated with a sharp downturn in the housing market, a US foreclosure crisis and a global financial crisis, which was allowed to grow under conditions of insufficient financial regulation, where asset bubbles promoted unsustainable borrowing. Consequences of the Great Recession were far reaching. While the Great Recession negatively affected individuals and families of all income and wealth levels, the proportional-negative consequences were greater for those with the lowest levels of wealth and income, resulting in greater wealth inequality afterwards (Pfeffer et al., 2013).

In the wake of the Great Recession, we saw the emergence of the Occupy movement, which began to attract international attention in September of 2011 (Gamson and Sifry, 2013). The movement appeared not long after the job losses and other negative economic outcomes of the Great Recession. It was a movement that began in the US and then grew to have a global presence. One of its main messages was to focus attention on the problematic nature of economic inequality. By popularizing the slogan "We are the 99%," the movement sought to raise awareness of the extent of economic inequality and to start discussions about its causes and consequences. Although Occupy was associated with multiple social movement messages, the movement's critique of economic inequality gained a great deal of media attention. The label of "1 percenters," the flipside of Occupy's 99% slogan, has become a commonplace way to refer to economic elites.

The early years of the twenty-first century include a high concentration of developments relevant to discussions of economic inequality. What is unknown is how much, and in what ways, these developments were framed in the news media. Given the complicated nature of economic changes and the multiple and far-reaching consequences of those changes, news coverage could assume many different forms. In this article, we will document news framing of economic inequality during the period of 2000 to 2014.

Determinants of news frames

Disparate research has demonstrated that there are many potential influences on news frames (Scheufele, 1999). These influences vary from the broadest cultural and structural kinds of factors to the localized factors specific to the organizations and workers who produce the news. Investigation of these factors requires data that are relevant to each. Here we review the broad and localized factors that we can address with our data. We conclude each review with focused empirical research questions that derive from past research and that we will address with our data.

Economic conditions. On the one hand, news coverage can never be understood as a simple reflection of the objective importance of an issue—newsworthiness is a subjective judgment, and the news itself is a social construct based on perceptions of events and issues (Shoemaker, 2006). On the other hand, it is still the case that real events and social trends are relevant to shaping the news. For example, Misra et al. (2003) find that in the case of the news framing of welfare programs, significant demographic and economic changes between 1929 and 1996 were among the important influences on who was framed as receiving welfare and how morally acceptable it was. In the case of the framing of economic inequality, one significant structural change that we can consider is the Great Recession. The Great Recession had devastating financial consequences for millions of North Americans, and those with the least financial resources were most negatively affected (Grusky et al., 2011). This leads to our first focused research question: to what extent can we see the negative economic consequences of the Great Recession reflected in attention to inequality and to news framing of inequality as a social problem?

National context. Some scholarship claims that news frames are sensitive to the larger cultural context in which they are produced. Gamson (1988, p:167) argues that news frames are dependent on broader "cultural resonances." Gamson's argument is that in order to effectively make sense to audiences, news frames must be supported by broadly held, already-existing beliefs and values. Cultural resonances are culturally specific, and can vary across time and space. Prior work has shown that news frames can vary cross nationally, as different national cultural resonances support different frames of an issue. For example, Benson and Saguy (2005) find that the different cultural repertoires (among other factors) of France and the US can account for how the issues of immigration and sexual harassment are framed in each nation's news media. In France, the cultural value of civic solidarity is more prominent, whereas in the United States the market-based logic is more prominent. As a result, "fiscal" framings of immigration and sexual harassment stories resonate more in the United States, and "solidarity" framings resonate more in France. Similarly, Ferree (2003) argues that the different cultural milieus of the United States and West Germany provided contrasting "discursive opportunities" that encouraged different news frames of the issue of abortion in each country's media. In the culture at large, principles of liberal individualism predominated in the United States while principles of social protection predominated in West Germany. Thus, media framing of the autonomy to choose abortion as an issue of protecting women resonated more in West Germany, while media framing of the autonomy to choose abortion as an issue of individual freedom resonated more in the United States. In the cases we are examining, Canada and the United States have different discursive opportunities for discussing economic inequality and different absolute levels of economic inequality. Moreover, in Canadian society there is a higher expectation for the state to play a role in organizing economic life. These three factors together raise the possibility that news frames in Canadian news would be different from those in the United States. Our second focused research question is thus: are we likely to see economic inequality more often framed as a social problem in Canadian news, and is economic inequality more often framed as needing state-based solutions in Canadian news?

Social movement efforts. Other work has shown the influence of social movement advocacy on news coverage. One strand of this work shows that social movement organizations can influence the *amount* of news coverage an issue receives (e.g., Andrews and Caren, 2010; Oliver and Myers, 1999). Relatively less work has been done to demonstrate the ability of social movement organizations to shape the *content* of news discourse on a wide range of important issues. Past work has tended to find that news routines, journalistic norms and conventions, and the efforts of other powerful actors shape the framing of issues more strongly

than do the strategic frames put forward by social movement organizations (Benford and Snow, 2000, p:626; Entman and Rojecki, 1993). However, some work suggests that social movement actors can, under certain conditions, influence news frames (e.g., Ryan et al., 2005). The Occupy movement included powerful messages about economic inequality-specifically about the role of the corporate sector causing inequality and about the harmfulness of inequality-that could be reflected in news framing of that issue. Past work on the influence of social movement organizations on news frames leaves open the question of whether the emergence of Occupy would have changed news frames of economic inequality. Our third focused research question is: did attention to economic inequality increase after the Occupy movement, and did framing of economic inequality as a problem with corporate sector causes increase, while framing of individual-level and corporate sector causes decrease?

Political orientation. Finally, past work has found that the characteristics of news-producing organizations is related to the framing of news. Among the many characteristics of news organizations investigated, the political leaning of a news organization has been found to matter for the news frames it produces. For example, Kim et al. (2010) find that liberal-leaning newspapers were more likely than conservative-leaning newspapers to attribute societal (as opposed to personal) level causes to poverty in the United States. Redden (2011) finds very similar results regarding news coverage of poverty in Canada and the United Kingdom. These past results suggest that a comparison of liberal-leaning and conservative-leaning newspapers might find systematic differences in how they frame economic inequality. Our fourth focused research question therefore is: did liberal newspapers more often than conservative newspapers identify economic inequality as a social problem and as having state-based solutions, and did liberal newspapers also frame economic inequality less often as having individual-level and corporate sector solutions?

Data and methods

Our data take two forms and come from two sources. First, data for measuring volume of attention to economic inequality come from searches for articles in the entire Lexis Nexis news database. Lexis Nexis is commonly used in social scientific research as a comprehensive news database. Through searching for targeted subject keywords, we are able to find the number of articles that are classified under those keywords. The number of yearly articles by keyword is the indicator for the total amount of news attention.

Second, data on how economic inequality is framed in the news come from coding a sample of articles from two leading American and two leading Canadian newspapers. The American newspapers selected are the *New York Times* and *Wall Street Journal*. These newspapers have national scope and have among the largest circulation in the United States. They are frequently used in social scientific research on news coverage because of their prominence within the journalism field. They are also ideal for contrasting a liberal-leaning and a conservative-leaning newspaper. Analogously, the Canadian newspapers selected are the *Toronto Star* and the *Globe and Mail*. They are likewise among the largest circulation newspapers in the country, with national scope, and the *Toronto Star* is explicitly left leaning while the *Globe and Mail* is relatively conservative, having endorsed the Conservative Party in the last several federal elections.

Data. Articles for each newspaper were collected through a search of the keyword phrase "economic inequality" for the time period

Table 1 Number of a	articles in sample by	y newspaper by year.
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Year	New York Times	Wall Street Journal	Toronto Star	Globe and Mail	Total
2000	21	11	25	21	78
2001	16	2	14	20	52
2002	20	5	17	20	62
2003	17	4	8	14	43
2004	8	6	8	17	39
2005	12	7	11	18	48
2006	41	31	27	29	128
2007	18	27	20	34	99
2008	21	25	24	36	106
2009	13	20	8	23	64
2010	18	16	18	49	101
2011	68	23	47	56	194
2012	52	45	45	69	211
2013	224	109	84	109	526
2014	116	113	72	57	358
Total	665	444	428	572	2109

of 1 January, 2000 to 31 December, 2014, using the Proquest database. This keyword was chosen in order to be more inclusive than income inequality or wealth inequality separately. While it is likely that some relevant articles were excluded from the search results (i.e., they covered the topic of economic inequality but were not classified under that keyword phrase), there is no reason to think that the exclusions are biased in any particular direction. Articles returned in the search were reviewed to ensure that the topic of economic inequality was present in the article; in cases where no explicit or implicit discussion of economic inequality could be found, those articles were excluded from the sample. Most often such articles discussed related topics such as poverty or racial inequality, whereas we are focussed explicitly here on economic inequality. To be clear, articles that discussed poverty or racial inequality in addition to economic inequality remained in the sample. The final dataset, by newspaper and year, is described in Table 1.

Variable construction. The framing of economic inequality was measured through hand coding of all articles in the sample. See the Supplementary Appendix for full information on how the codes were developed, code definitions, and examples of each.

The problem definition code identifies where, at least once in the news article, there was a reference to or mention of economic inequality as a social problem and/or as having any negative consequences. An article received a value of 1 for this code if there was a reference to economic inequality as problematic or harmful, and a value of 0 if not. The causal code group consisted of three separate codes, for whether, implicitly or explicitly, economic inequality was causally attributed to individuals, the corporate sector, or the state, respectively, again using the values of 1-0, with 1 indicating that the causal attribution had been made at least once in a news article. In this article, our potential news frame determinants lead us to test only the corporate sector causal code's relationship to our independent variables. However, we examine all three causal codes' prevalence over time. The solutions coding group was three distinct codes for whether a solution to economic inequality was identified or suggested at the individual level, based in the corporate sector, or state based, respectively. As in the case of causal attributions, an article was given a value of 1 if a solution was present at least once, and 0 if not.

Six research assistants trained by the first author carried out the hand coding using Dedoose, an online program for coding texts that can facilitate both qualitative and quantitative analyses. In the early stages of coding, two additional coders coded a subsample of 50 articles in order to ascertain that there was an acceptable level of intercoder reliability. The 50 articles were randomly selected from the years 2002, 2003, and 2004. We calculated average pairwise percent agreement and Krippendorff's alpha for the codes used in this analysis. Average pairwise percent agreement was above 85%, while Krippendorf's alpha ranged from 0.68 to 0.82, meaning all our codes were at or above a fair level of reliability according to general practice and acceptable as a basis for drawing conclusions based on the data (Lombard et al., 2002).

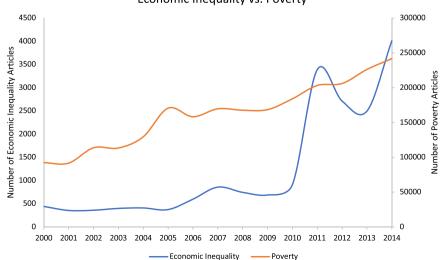
Dependent variables. Across our focused research questions, we ask about a range of dependent variables. The first-dependent variable is the amount of media attention. We measure attention through results from the Lexis Nexis search data. The indicator for attention is *the total number of articles* in the database under the keyword "economic inequality" by year. The second-dependent variable is the framing of economic inequality as a *social problem* with negative consequences. The third-dependent variable is the framing of economic inequality as having a *cause based in the corporate sector*. The fourth-dependent variable is framing economic inequality as having a *solution based in the corporate sector*. Finally, the sixth-dependent variable is framing economic inequality as having a *state-based solution*.

Independent variables. The independent variables correspond to the determinants of the news frames. Each newspaper (*New York Times, Wall Street Journal, Globe and Mail, Toronto Star*) has both a national context and a political leaning. To assess the influence of national context, the results for the *New York Times* and the *Wall Street Journal* together are compared with those of the *Globe and Mail* and the *Toronto Star*. To assess the influence of political leaning, the *New York Times* and the *Toronto Star* are compared with those of the *Wall Street Journal* and the *Globe and Mail*. A variable for the Great Recession was created by assigning a value of 0 to all articles published before the onset of the Great Recession, those published up to and including 31 December, 2007, and a value of 1 to all articles published after that date. A variable for the Occupy movement was created by assigning a value of 0 to all articles published before the highly publicized protests began in New York City, those published up to and including 30 September, 2011, and a value of 1 to all articles published after that date.

The analysis proceeds first through assessing the timing of changes in the volume of attention to economic inequality. These results are relevant to our research questions having to do with the amount of attention that economic inequality received. Next, we present a series of logistic regression models for each respective dependent variable, which allows us to address our research questions about how economic inequality was framed. In these models, the *New York Times* serves as the reference category against which the other newspapers' results are compared.

Volume of attention to economic inequality

The volume of attention to the topic of economic inequality is assessed in two ways. Figure 1 shows the results of a search for articles published under the keyword phrase "economic inequality," and for purposes of comparison analogous results for a search for articles under the keyword "poverty." The results provide no support for the argument that attention to economic inequality increased following the Great Recession. In contrast, the results provide strong support for the idea that the Occupy movement caused increased attention to economic inequality. In the year of the emergence of the movement, 2011, the number of articles increased precipitously. The change in attention associated with Occupy has been enduring; while the level dropped somewhat in 2013, in all years following 2011 the attention to economic inequality has remained higher than in the years prior to 2011. The comparison with the articles on poverty is instructive. While articles on poverty have increased over time, the increase has been linear. Therefore, while a gradual increase in attention to economic inequality might have been attributable to other causes, the dramatic change in 2011 is hard to explain as anything other than news coverage of the Occupy movement and its core message about economic inequality. It is also worth noting that total volume of articles about poverty is much, much higher than the volume of articles on inequality, even after the Occupy movement. The ratio of poverty articles to economic inequality articles is ~200 to 1 in the year 2000 and that ratio is



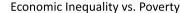


Fig. 1 Number of articles per year under subject keywords "Economic Inequality" and "Poverty". The number of articles about economic inequality spikes in the time period following the emergence of the Occupy movement. Note: Source: Lexis Nexis.

about 60 to 1 in 2014.¹ In other words, economic inequality remains a minor news topic compared to poverty.

News framing of economic inequality

Table 2 presents the results of a logistic regression of news frame determinants on the presence of a social problem. The table contains odds ratios, and the *New York Times* is the omitted reference category among the newspapers.

Our first focused research question asks whether the objective economic conditions produced by the Great Recession were reflected in news framing of economic inequality as a social problem. The results from Table 2 indicate that there was no relationship, as the odds ratio for the Great Recession variable is not statistically significant. Our third focused research question asks whether news framing reflected the Occupy movement's message of economic inequality as a social problem. The evidence for this relationship is very strong, as newspapers were almost 6 times more likely to mention economic inequality's problematic or negative consequences in articles published after Occupy's emergence in September of 2011. Figure 2 shows the percentage of articles each year that included at least one mention of economic inequality as a problem. We can see that before 2011, in some years articles refrained from addressing the problematic aspects of economic inequality, discussing it in the abstract or in neutral terms. There were also some instances where economic inequality was framed as efficient for the economy or inevitable.

Table 2 Logistic regression of news frame determinants on social problem frame. S.E. **Odds ratio** Newspaper WSJ 0 792 (0.109) 1343 (0.216) GM TS 2.541*** (0.439) (0.162) Great Recession 1.136 Occupy Movement 5 99*** (0.973) N = 2109*p < 0.05, **p < 0.01, ***p < 0.001

However, in the years following 2011, it became quite rare to discuss economic inequality without mentioning its problematic nature or its negative consequences.

Table 2 also contains results that are relevant to our question about the difference in framing in the Canadian versus US news context. Past research suggests that the Canadian newspapers might be more likely to frame economic inequality as a problem as compared to the American newspapers. There is some evidence that there is a difference, insofar as the Toronto Star's articles were two and a half times more likely to reference economic inequality's problematic aspects or negative consequences than articles in the New York Times. There was no significant difference, however, between the Globe and Mail and the New York Times, which suggests that national context does not influence framing of economic inequality. These same results in Table 2 are also relevant for addressing our fourth focused research question about differences in newspapers' political orientation. While the liberalleaning Toronto Star was most likely to frame economic inequality as problematic, there was no significant difference between the liberal-leaning New York Times and the conservative-leaning Wall Street Journal or Globe and Mail. There is therefore only limited evidence that political orientation influences framing in this case.

Table 3 presents the results of the determinants of identifying the cause of economic inequality as rooted in the corporate sector. Our third research question about the influence of the Occupy movement asks whether Occupy's message about the role of the

corporate sector cause f		
	Odds ratio	S.E.
Newspaper		
WSJ	0.978	0.154
GM	1.573**	0.218
TS	0.744	0.126
Great Recession	0.802	0.142
Occupy Movement	1.276	0.203

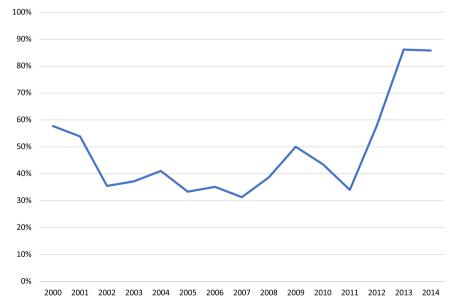


Fig. 2 Percentage of articles in dataset per year identifying economic inequality as a problem. The percentage of articles identifying economic inequality as a problem spikes in the time period following the emergence of the Occupy movement.

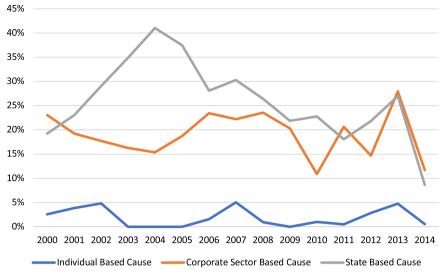


Fig. 3 Percentage of articles in dataset per year identifying individual vs. corporate sector vs. state-based causes of economic inequality. Individual level causes are relatively rarely cited, and corporate sector and state-based causes do not exhibit clear patterns over time.

	Odds ratio	S.E.
Newspaper		
WSJ	0.496	0.288
GM	1.794	0.684
TS	1.045	0.483
Great Recession	0.989	0.485
Occupy Movement	1.097	0.481

corporate sector in producing economic inequality influenced news framing. Do we see that framing more frequently in news articles published after Occupy's emergence in September of 2011? Table 3 shows that this frame did not increase after Occupy's emergence. In fact, the only statistically significant result in Table 3 is that articles in the *Globe and Mail* were 50% more likely to identify corporate sector causes of economic inequality than the *New York Times*. This result is discussed further in the next section of the article.

To help interpret the logistic regression results, Fig. 3 presents the prevalence of the three cause codes over time. There is no clear pattern for the corporate sector-based cause code over time. The code was consistently more common, however, than the individual-based cause code, which was very uncommon. The government cause code was more common than the corporate sector cause code until 2011, but it decreased after 2004 and by the end of the time period the two codes were present at approximately equal rates.

A concomitant expectation of an increase in corporate sector causes of inequality is a decrease in attention to individual-level solutions, as economic inequality was framed by Occupy as a systemic problem beyond the responsibility of individual poor people to solve. Table 4, however, shows that there was no decrease in the tendency to reference individual-level solutions to economic inequality following emergence of the Occupy movement. In fact, there are no significant results for any of the determinants of news frames regarding individual-level solutions. There is, therefore, no evidence for the effect of Occupy's message about the role of individuals in solving the problem of inequality. This table's results are also relevant to our fourth research question about newspapers' political orientations. There is no evidence that liberal-leaning newspapers were less likely to reference individual-level solutions than conservative-leaning newspapers.

Figure 4 provides further insight into these findings. The percentage of articles in which an individual-level solution to economic inequality was mentioned in the years preceding the Occupy movement was very low. Given this low starting point, a reduction in individual-level attributions of solutions to economic inequality following the Occupy movement was unlikely to have happened. Similarly, differences between liberal and conservative-leaning newspapers were unlikely to emerge given how rare individual-level solutions are. Notably, state-based solutions to economic inequality are the most common.

In contrast to individual-level solutions, there are significant results for the framing of economic inequality as having corporate sector solutions. Our research questions asked whether liberalleaning newspapers would be less likely to identify corporate sector solutions to economic inequality, and also whether references to corporate sector solutions to economic inequality would decrease following the emergence of the Occupy movement. Table 5 shows that the conservative-leaning, Canadian newspaper, the Globe and Mail, was 3.2 times more likely to reference corporate sector solutions than the New York Times. However, the Wall Street Journal, more conservatively oriented than the New York Times, was not more likely to frame inequality as having corporate sector solutions. There is therefore only limited evidence in these results about the influence of newspapers' political orientation. Regarding the effect of the Occupy movement, we see that references to corporate solutions overall were almost 2.6 times *more likely* to appear following the emergence of the Occupy Movement. Therefore, not only was Occupy's message about corporate sector solutions not reflected in the news framing, the framing apparently increasingly contradicted Occupy's message. Again, Fig. 4 is helpful for interpreting these logistic regression results. Corporate sector solutions increased after 2011, but only modestly, reaching a high of 13% in 2013, and prior to 2011 the mention of corporate sector solutions was quite low. A decrease in corporate sector solutions to economic inequality would have been quite unlikely, given the low starting point. At the same time, any increase is quite strong evidence against the idea that Occupy influenced news framing.

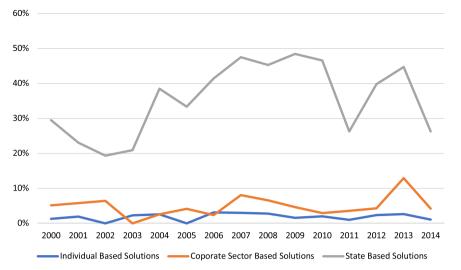


Fig. 4 Percentage of articles in dataset per year identifying individual, corporate-based, and state-based solutions. Although state-based solutions are most commonly cited, they do not exhibit a clear pattern over time.

	Odds ratio	S.E.
Newspaper		-
WSJ	1.035	0.301
GM	3.243***	0.739
TS	0.853	0.269
Great Recession	0.816	0.281
Occupy Movement	2.596***	0.771

 Table 6 Logistic regression of news frame determinants on state solution frame.

	Odds ratio	S.E.
Newspaper		
WSJ	0.896	0.115
GM	1.256	0.148
TS	0.738**	0.098
Great Recession	1.339	0.189
Occupy Movement	0.826	0.103
N = 2109. *p < 0.05, **p < 0.01, ***p < 0.001.		

Finally, Table 6 presents the results for determinants of framing economic inequality as having a state solution. Our research questions asked whether Canadian newspapers were more likely to include this frame, and also whether liberal-leaning newspapers were more likely to include this frame. We see no evidence that either national context or political orientation influenced this framing of economic inequality. The Globe and Mail and the Wall Street Journal are not significantly different from the New York Times in referencing state solutions, and surprisingly, the Toronto Star, the newspaper that is liberalleaning and Canadian, is significantly less likely to reference state solutions than the New York Times. Turning again to Fig. 3 to assist with the interpretation, state-based solutions are actually the most common kind of solution mentioned in the news articles. However, there is no clear pattern over time, and given that they are relatively common solutions to be mentioned, it would appear that neither national context nor political leaning affects the likelihood of that happening. These results are discussed further in the next section.

Discussion and conclusion

In this article, we explore the determinants of the framing of economic inequality in the news. One clear result is that news coverage changed in response to the Occupy movement. Not only did the amount of coverage increase, but the identification of economic inequality as a problem with negative consequences also increased dramatically following the start of the Occupy movement. The finding on the volume of attention corroborates past research that links social movement activity to the volume of news attention under certain conditions (Andrews and Caren, 2010; Oliver and Meyers, 1999). Although we do not examine variation in the characteristics or strategies of social movements, we can point to the fact that Occupy protested by occupying key sites in financial districts around the world, which was a successful tactic for getting media attention. Moreover, as Sobieraj (2010) documented, journalists are particularly amenable to covering political outsiders whose actions are perceived as authentic and spontaneous rather than calculated and routinized, which is a fair description of the early Occupy movement and helps us to understand how the movement generated so much coverage.

In contrast to the question of the volume of news attention, past research is less clear regarding the question of the ability of social movements to influence news frames. On the one hand, in their review article Benford and Snow, (2000, p:626) write, "social movement activists rarely exercise much control over the "stories" media organizations choose to cover ... or how the media represent the activists' claims". On the other hand, there are examples where social movement organizations have influenced the framing of news (Rauch et al., 2007; Ryan et al., 2005). In this study on economic inequality in the news, perhaps the single strongest finding is that the news framing of economic inequality

as a social problem with negative consequences increased dramatically after the emergence of the Occupy movement, but did not increase after the Great Recession. This is clearly an instance of how a social movement changed the conversation about a topic, suggesting that the material consequences of the Great Recession alone were insufficient to change the amount of attention or the recognition of economic inequality as a social problem. In the comparison between the Great Recession and the Occupy movement, the greater effect of Occupy on the recognition of economic inequality as a social problem is clear.

At the same time, the subsequent analyses reveal the limits of the effects of the Occupy movement on news frames. Following the emergence of the Occupy movement, news articles did not increase identification of the corporate sector as a cause of economic inequality. Moreover, they did not increase their identification of the state as responsible for solving the problem of economic inequality. These results are significant because they contradict Occupy's emphasis on the corporate sector's role in producing unacceptable levels of inequality and its calls for the government to act to ameliorate economic conditions for the 99%. It therefore seems that the messages of Occupy had a rather shallow influence on news frames: the idea that economic inequality was a problem was taken up in the news, but Occupy's ideas about the causes of and solutions to the problem were not significantly discussed. The one solution that did increase over time was corporate sector-based solutions, which again contradicts Occupy's pessimistic and suspicious view of the corporate sector. This limited effect of Occupy helps to address the murky question of whether social movements can influence news frames. In this case, the influence is limited to problem identification, while there is no observable influence regarding the other coreframing tasks. One potentially illuminating perspective on these findings is the argument made by authors working within the political economy of the media perspective such as Herman and Chomsky (2002) and McChesney (2008). These authors argue that corporate ownership of the media produces a systemic bias in favor of the perspectives and ideas upheld by economic elites, despite the professionalism and objectivity of journalists. From this perspective, corporate ownership of the media could help explain why Occupy's core messages about economic inequality's causes and consequences were not reflected in news coverage.

The effect of national context on news framing of economic inequality is quite limited as well. While the Toronto Star does identify economic inequality as a problem most frequently, the Globe and Mail's rate of doing so is not significantly higher than that of the New York Times, which is not significantly different from the rate at the Wall Street Journal. Throughout the analyses, the Toronto Star and the Globe and Mail do not frame economic inequality consistently similarly to each other. Nor do their articles contain frames that are consistently different from the New York Times and Wall Street Journal. Moreover, the Canadian newspapers do not always behave in ways that would be predicted by the Canadian discursive opportunity space. Contrary to expectations, the Toronto Star articles were the least likely to frame the state as a source for solutions to economic inequality, despite the paper's reputation as a left-leaning news source. We acknowledge however, that comparing only two national contexts is a limited test of the power of national context to determine news frames. It is also possible that more dissimilar contexts (e.g., Sweden and the United States) might produce a different finding.

There is again limited support for the political leaning of newspapers as a determinant of how their articles framed economic inequality. While the *Toronto Star* was most likely to frame economic inequality as a problem, and it is arguably the most politically left-leaning newspaper in the study, the *New York* *Times* was not significantly more likely to frame economic inequality as a problem than was the *Wall Street Journal*. Regarding the likelihood of identifying the corporate sector as a cause of economic inequality and the state as a solution, for neither framing task were liberal-leaning newspapers significantly different from conservative-leaning newspapers.

The lack of statistically significant results in most analyses for national context and for political leaning might be related to the small number of news sources representing each condition. In addition, political leaning and national context interact. While the *Globe and Mail* is a conservative newspaper in the Canadian context, its political leaning is arguably closer to the *New York Times* than to the *Wall Street Journal*. Future work should explore greater variation in political leaning in order to investigate better the potential entanglement of the effects of political leaning and national context.

If core-framing tasks involve problem identification, causal attribution, and proposed solutions, then what overarching, coherent frame emerges in the newspaper articles regarding economic inequality by the end of the time period under study? Our findings suggest the emergence of a frame of economic inequality that could be labeled "urgent but ambiguous". It is a clear, pressing problem with negative consequences, but the causes and solutions are multiple and there is no emerging consensus on them. Interestingly, one clear pattern in the data is that economic inequality is not a problem caused by individuals, nor is it individuals' responsibility to solve the problem. This is a finding that contradicts expectations that come from a critical perspective on neoliberalism, which would predict that the time frame under study would witness frequent attribution of causes and solutions for social problems to individuals (Harvey, 2005). In this way, our study is in line with other recent research that finds that neoliberalism can manifest in news discourse in complicated ways, where there is some understanding for the systemic nature of social problems that affect the disadvantaged (Oleschuk, 2020). The finding of an overall frame of "urgent but ambiguous" is further relevant for understanding how discourses can reproduce inequality. News frames can work hegemonically (Gramsci, 1971) to reinforce taken-for-granted ideas about the inevitability of inequality and to obscure pathways to social change.²

Conceptually, this article seeks to evaluate the relative influence of different determinants of news frames. In contrast to much prior research, our findings suggest that social movement actors can significantly influence not only the amount of attention an issue receives, but also how that issue is presented—in this case, as a social problem with negative consequences. This was the largest effect we found in our analyses of news frames, and it strongly overshadowed the effects of objectively measurable social conditions (the Great Recession), national context, and political leaning were. Crucially, though, the ability of Occupy to shape news frames was also limited, as key aspects of the movement's messages were not reflected in news frames. Our research speaks to the importance of studying social movements' impact on news frames of important social problems, and also how this influence manifests. We must be cautious about making assumptions about neoliberal paradigms as shaping news coverage of economic matters, and we need to be sensitive to precisely, which elements of news frames are shaped by social movements and other potential determinants.

Data availability

The dataset produced by hand coding the articles is available from the Peel Social Lab (https://www.utm.utoronto.ca/peel-social-lab/peel-social-lab).

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Notes

- 1 The results are mostly replicated using other subject keyword searches. A search with the subject keyword search for "income inequality" returns the same scale of increase in the year 2011. There are still vastly fewer articles than those for the poverty, with the ratio of poverty to income inequality articles in the year 2000 at ~110 to 1 and in 2014 at 16 to 1. By way of further comparison, the ratio of articles returned with the subject keyword search for "unemployment" to economic inequality articles in the year 2000 was ~228 to 1 and in 2014 was 65 to 1.
- 2 Many studies of news frames find multiple coherent or overall frames that coexist, as different aspects of complex issues can be highlighted. While our findings about problem definition suggest the clear emergence of a coherent perspective about that aspect, our findings about causes and solutions are less clear and prevent us from identifying multiple overall frames.

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Competing interests

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Additional information

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