Strange Frame Fellows:
The Evolution of Discursive Framing in the Opt-Out Movement

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Acknowledgements: Thanks to Cynthia Coburn, Jim Spillane, Simone Ispa-Landa, Oren Pizmony-Levy, Brayden King, and the participants of the Social Movements Workshop at the Kellogg School of Management for helpful feedback on the development of this project.

Abstract

Standardized tests are a cornerstone of accountability policies, yet they face increasing opposition from a coalition of parents and educators, who encourage boycotts of annual tests. Activists use a variety of discursive tactics to attract people to their cause, typically relying on an underlying ideological compatibility between activists and their target audience. How do activists use discursive tactics when they seek to mobilize an ideologically diverse base? Taking the case of the opt-out movement in New York State, I analyze how activists frame issues around testing to appeal to a broad audience. Using a longitudinal text corpus consisting of posts to movement-aligned Facebook group pages, I find that activists used four prominent framing strategies: (1) using locally-oriented frames that viewed testing as harmful to children and local schools; (2) using technically-oriented frames that attacked the legitimacy of the tests; (3) using socially-oriented frames that cast the tests as a tool for undermine the public school system; and (4) particularizing and personalizing frames, making the need to act urgent. I then use hierarchical cluster analysis to document how activists emphasized the first two types frames and downplayed the more ideologically-tinged social frames. The case provides insights into how activists use framing to appeal to a potentially diverse audience and has implications for the design and implementation of accountability policies.

Introduction

Standardized testing is a longstanding component of public education in the United States, but its role greatly increased with the nationwide adoption of standards-based accountability under the No Child Left Behind Act of 2001. Under the auspices of accountability, standardized tests are used to assess the performance of students, teachers, and schools, and hold them accountable to standards of progress. While the use of standardized tests is a perennial source of controversy and debate (Koretz, 2009), it was not until the 2012–2013 school year that collective, grassroots action opposing standardized testing emerged in earnest in the form of widespread boycotts of annual accountability tests. This raises many questions about factors that contributed to this mobilization, particularly the role of discursive tactics used by activists in the movement to convince other parents that standardized testing is problematic and to participate in test boycotts.

Participants in social movements often seek changes to policies through disruptive action, taking the form of protests, boycotts, or marches, among others. Such tactics place normative pressure on organizations, deprive them of resources, damage their reputation, or otherwise create challenges for status quo policies and practices. A central challenge facing activists is convincing others that their cause is worthy–worthy enough to dedicate time and resources, and to risk repercussions from participating in disruptive action (Willer, 2009). One key pathway for motivating others to support or join a cause is the use of discursive frames. Discursive frames are cognitive schema that create a framework for interpreting social events (Snow, Rochford, Worden, & Benford, 1986). Activists craft frames to present social issues as problematic and requiring change–in this case, the use of standardized tests for accountability purposes in public schools.

Social media site networks, like Facebook, provide new opportunities for activists to build support for their cause by deploying discursive frames in public, or semi-public, forums, allowing them to reach large audiences for little cost (Bail, 2016; Tremayne, 2014). Approximately 68% of American adults use Facebook and about three-quarters of those users visit the site at least once a day (Pew, 2018). Facebook affords users low-cost, low-investment opportunities to disseminate messages across social networks, giving them the potential to shape conversations about standardized testing regardless of their reputation or expertise on the subject (Chiou & Tucker, 2018; Gentzkow & Matthew, 2017). The opt-out movement maintains a strong presence on Facebook. One of the largest advocacy groups, Long Island Opt Out Info, is a public Facebook group founded in 2013 (Wang, 2017).

Framing high-stakes standardized testing

Activists use discursive framing to build support for their cause, convince others to join a movement, and to motivate collective action (Bail, 2016; Snow et al., 1986; Snow, Soule, & Cress, 2005). For opt-out activists to build a movement for change, they must convince others that the use of standardized testing for accountability purposes is indeed problematic, and requires collective action to change. Framing involves identifying a problem, its cause, and the parties responsible–a process referred to as diagnostic framing (Benford & Snow, 2000; Coburn, 2006). Activists intentionally craft frames to provide and interpret schema that will persuade others to support their cause and join in collective action.

A key assertion of the framing perspective is that perceptions of reality are actively constructed and contested through interpersonal interactions. Social problems are not a given. Individuals can interpret the same set of events in different ways. Activists in movements exploit this by crafting discursive frames, which create a coherent explanation of the events by claiming

harms, identifying victims, assigning blame, and offering resolutions (Snow et al., 1986). To take the example of standardized testing, one might view testing as an important aspect of education, providing parents and educators with a snapshot of student progress which they can use to help students improve. With such an interpretation, standardized tests are perceived as neutral, technical instruments that support students learning. However, an activist in the opt-out movement, seeking to build support for their cause, may offer a contrasting interpretation–that standardized testing provides no useful information for teachers or parents, and that their real purpose is to undermine public confidence in public schools so that politicians can privatize them. Under this interpretation, standardized tests are not neutral, technical instruments, but are part of a political effort to destroy public schools. A problem is defined and blame is assigned.

There is little direct evidence about the use of frames in the opt-out movement. In one study, Wang (2017) focuses on contested framings between opt-out advocates and policy makers, drawing from Stone's (2012) categorization of frames. This research provides insights into framing processes in the movement, but it is limited due to its focus on press coverage and archival documents. Framing is a contested process that unfolds over time (Coburn, 2006; Snow et al., 1986), which the use of press coverage and archival documents can mask. The advantage of social media resources is that they allow for the observation of frames over time, including those that do not find footing in the movement and fail to make it into official documents.

Politics and ideology in the framing process

For frames to work, for them to transform bystanders into participants, target audiences must find them credible interpretations of reality. Snow and colleagues (1986) use the metaphor of resonance to capture the credibility of frames. A frame must comport with the lived experiences or ideological commitments of target audiences. Frames that do not match up with a

person's lived experience is unlikely to convince them that a social phenomenon, like standardized testing, is a problem that requires collective action to solve. For example, if an activist frames standardized testing as problematic because it creates an unhealthy amount of stress in children, but a parent has a child who does not experience such stress, she is unlikely to be convinced by it.

The exact role of ideology in framing is a subject of debate in the literature (Oliver & Johnston, 1999; Snow & Benford, 2000). A consistent thread, however, is that ideology can serve two district roles in the framing process: (1) by providing a semantic resource for the construction of frames; and (2) by encouraging the "cultural resonance" of the frame with a target audience (Bail, 2016; McCammon, Muse, Newman, & Terrell, 2007; Snow et al., 1986). Through a process called "frame bridging", activists seek to make explicit linkages between ideologically compatible frames (Snow et al., 1986). In particular, activists use information-dissemination channels to reach "ideologically congruent but untapped and unorganized sentiment pools" (Snow et al., 1986, p. 469). For example, opt-out activists may seek to tap into conservative sentiment pools and frame the issue of standardized testing in terms of government overreach.

Tapping into ideologies facilitates and constrains the crafting of frames (Snow & Benford, 2000). On the one hand, ideologies provide cultural resources for activists to use when building frames to appeal to target audience (Bail, 2016; McCammon et al., 2007). The values and commitments of a particular ideology offer readymade points of connections for activists to latch onto. By linking frames to preexisting ideologies, activists can exploit semantic connections between the beliefs and values encoded in the frame and in the ideology (Swidler, 1986; Weber, Heinze, & DeSoucey, 2008), such as the of linking standardized testing to

concerns about "big government." On the other hand, exploiting those values and commitments risks alienated audiences who do not share them, despite overall agreement on social problems and movement objectives. For example, Whittier's (2014) study of anti-pornography movement found that ideological differences between feminists and conservative Christians prevent them from forming a coalition. Benford's (1993) study of nuclear disarmament activists found that shades of ideological differences between moderate, liberal, and radical wings of the movement lead to fracturing of the movement. Likewise, in the opt-out movement, framing the problem of standardized testing in terms of government overreach may dissuade people with liberal ideologies who support government intervention into social problems.

Ideology, more generally, acts as a linchpin for social movements, creating cohesion, agreement, commitment, and motivation. Whittier (2014, p. 176) asserts, "Coalitions rest upon compatible ideology or collective identity", while Zald (2000) argues that ideology is so central to the life of a movement that movements are, in essence, "ideologically structured action." Ideology is, increasingly, a powerful predictor of a person's support for public policies and even lifestyle choices (Baldassarri & Gelman, 2008; DellaPosta, Shi, & Macy, 2015; Feinberg & Willer, 2015). This creates challenges for activists who must mobilize populations that lack ideological cohesion. In the case of the opt-out movement in New York, activists are interested in mobilizing parents of school-aged children to participate in boycotts of annual standardized accountability tests. The movement lacks a shared ideological foundation to draw upon when recruiting members.

Recent research suggests that there are circumstances when individuals support positions that do not match their political ideology, even when the issue is highly politicized. For example, when issues have concrete local impacts that can be either beneficial or detrimental, people may

override their commitments to support issues that their political identity opposes. Dokshin (2016) documents how people were more likely to support the siting of risky hydraulic fracturing projects in their municipality, regardless of political identity, compared those further away from siting locations. For people in municipalities where fracking projects were not likely, partisanship and political ideology played a dominant role in determining support or opposition.

Feinberg and Willer (2013, 2015) have shown that partisan individuals will support positions associated with an opposing political ideology if it is framed in terms of their moral values. In a series of experiments, they show that support for environmental issues—typically associated with liberal political ideology—increases among conservatives when it is framed in terms of purity, a moral value central to conservative ideology (Feinberg & Willer, 2013). In a second series of studies, they expand the set of issues to include additional contentious social issues, like marriage equality, military spending, and universal health care. By presenting the issue in a moral framing that resonates with the ideology of target audiences, researchers increased the agreement of a political position with individuals' moral commitments, increasing the likelihood of support.

In addition, some advocates in social movements may seek to avoid overt ideological or political commitments to increase their ability to reach broad audiences (Feinberg & Willer, 2015). Building broad, bipartisan public support may increase the possibility of achieving policy goals. At the same time, foregoing ideology-based appeals may mean that activists lose a set of discursive tools that scholars have long identified as critical to forming and sustain a movement—such as shared political commitments and identity (Simon & Klandermans, 2001; Zald, 2000). They may lose the pool of ideologies as a resource for crafting frames and generating cultural resonance. While the evidence suggests that framing strategies that

foreground local issues or tap into shared moral commitments can build bipartisan or cross-partisan support, it still leaves open an important question: How do activists motivate *collective action* in absence of any ideological or political consensus? Can activists craft frames and build a narrative for the movement that can overcome barriers to collective action? The case of the opt-out movement in New York provides an opportunity to explore framing processes in a movement that seeks to mobilize a diverse base to participate in boycotts of annual accountability tests.

In this study, I answer three research questions:

1) What frames did participants in opt-out align social media groups to convince others that standardized accountability tests are a problem and build support for the movement?
2) How does the deployment of frames change over time?
3) To what extent do the frames used by participants form a cohesive narrative?

To answer these questions, I use data consisting of two years of posts to public opt-out-aligned Facebook groups based in New York State. I analyze these posts for how activists frame the issue of testing in public schools and then conduct a cluster analysis to determine patterns of deployment and evaluate the extent to which the frames create a coherent narrative motivating collective action.

The growth of the anti-testing movement in New York

The use of standardized tests in education has always been controversial. Since the early 1900s, debates have ranged from the proper use of such tests (if any) to statistical concerns about their validity and reliability (Koretz, 2009). The debate over their use ramped up with the 2002 reauthorization of the Elementary and Secondary Education Act, known as the No Child Left Behind Act. The act dramatically altered the use of standardized tests in K-12 schools. Tests became the lynchpin of the accountability system promoted by the Act, relying on the annual

administration of standardized tests in English Language Arts and Mathematics to evaluate schools. To continue to receive federal funding, the act required states to develop and administer assessments linked to a set of learning standards. These annual assessments are often characterized "high-stakes," due to sanctions codified in the accountability system of the act. Poor performance on the assessments could lead to schools and districts losing federal funding or undergo reconstitution.

While organizations such as FairTest (founded in 1985) and professional teacher unions have questioned and opposed the overuse of standardized tests in education, it was not until after the widespread adoption of the Common Core State Standards (CCSS) in 2010 that an organized, widespread movement developed opposing the use of standardized tests, dubbed the "opt-out movement" (Pizmony-Levy & Green Saraisky, 2016). New York state, early to adopt and implement the CCSS and CCSS-aligned test, became the epicenter of the movement beginning in 2013 (Wang, 2017). Starting in 2012, a profusion of opt-out aligned groups emerged, often explicitly tied to a particular geographic region of the state ("Long Island Opt-Out Info") or a particular school district ("Stop Common Core - Ballston Spa Central School District").

Between 2012 and 2014, over 40 opt-out-aligned Facebook groups were founded (Figure 1, Panel A). Likewise, beginning in the 2013 school year, a declining number of students in K-8 public school participated in the annual reading and math assessments. This number declined each year, with over 20% of students opting out of the 2015-2016 tests statewide. The overall participation rate masks a significant amount of between-school variation in opt-out rates. Between the 2012-2013 and 2015-2016 school years, some schools saw up 80% of students opting out of the annual tests.

[FIGURE 1]

This rate of boycotting has significance for schools and districts. Federal law requires the participation of 95% of students overall and within specified subgroups of students, else there is the risk of sanctions. Moreover, individual students face risks, since schools often use test scores to identify students for placement into academic services, for admission into honors programs, or even as a criterion for grade promotion.

Research Design

I conducted a qualitative case study of the framing tactics used by opt-out aligned Facebook groups based in New York, covering the 2012-2013 and 2013-2014 school years. These two years cover the emergence of the movement in New York. In 2012-2013, the state administered tests that aligned with the newly adopted Common Core State Standards and experienced the first instances of widespread test boycotts (Hernández & Baker, 2013). I chose a case study design because it allows for studying dynamic processes over time (Yin, 2009). Using data from Facebook groups provides unique affordances to the study of framing. First, Facebook is the most widely used social media site, with 68% of the U.S. adult population on Facebook (Greenwood, Perrin, & Duggan, 2016). This suggests that relevant audiences had relatively easy access to opt-out groups. Second, while Facebook groups are moderated by administrators (deleting posts, accepting or rejecting members), once admitted, all group members are free to post whatever they wish. This allows me to avoid problems that plague other studies of framing, such as selection bias that leads to the observation of only successful frames or those crafted by movement elites (Benford, 1997). In addition, with longitudinal data, I observed both successful frames (those continually used by activists) and frames that failed. This feature of the dataset is particularly important for this study, since it allows for the observation of a wide range of frames that may align to different ideological perspectives.

However, accompanying these affordances are some notable limitations. The use of Facebook data does not fully overcome the issue of selection bias, since (1) not all adults use Facebook, and (2) even if they do, they may not use it for activism. Thus, I can only observe the framing activities of those opt-out activists who are on Facebook and use it for their activism. Second, I have no means of determining how actively administrators moderated their groups. In principle, an administrator could delete any posts that they do not like, refuse memberships, and remove members. Such active moderation could create a potentially biased sample, especially if it were correlated with the ideological bent of the posts. Members can also leave Facebook at any time and delete their posts or comments. Third, I have access only to publicly available data. Many of the opt-out affiliated groups who have a Facebook presence have private group pages. It may be the case that highly partisan activists prefer private Facebook groups, and thus, I am missing an entire set of frames used by activists.

Considering these limitations, I characterize this study as an investigation of the public presentation of frames by movement participants. The study of public-facing groups is relevant for the study of framing, since it is one forum activists may use to recruit and mobilize participants.

Data Collection

To identify groups, I searched Facebook groups and pages using the terms “New York” and “Opt Out”. With the help of two research assistants, I reviewed each group page to ensure it met the criteria for inclusion in the study. To be included, groups had to (1) be based in New York, (2) advocate for boycotting annual testing in public schools, (3) be a public group or page, (4) be active between 2010 and 2014. This resulted in 31 Facebook groups or pages, most of which were founded in 2013 or after. Table 1 displays information about these groups. Long

Island Opt Out Info was the most active group during this period and to date is the largest. However, since the group is public, members of the group are not necessarily based on Long Island and the group served as a base for the movement in the beginning years (Wang, 2017). [TABLE 1]

Once I identified groups, I used Facebook's API (Application Programming Interface) to scrape all public posts between the 2010-2011 and 2013-2014 school years. I chose the focus on this period since it represents the beginning stages of the movement, with the adoption of the Common Core State Standards in 2010. The beginning stages of the movement are critical period of the use of discursive tactics to build a coalition of support (Snow et al., 1986).

The scraped data contain a variety of content, including information on events, links, photos, videos, or status updates. Users are free to comment on each of these posts. For this study, I chose to focus on status posts. Status posts allow uses to write a short message visible to any Facebook users who visits the group page, even if they do not belong to the group. Non-members can also respond with comments and reactions such as "likes." This resulted in 5,051 posts. I subset the dataset to include only posts that mentioned the keywords "test", "testing", "exam", or "assessment" and that were equal to or greater than 50 words in length. I chose the 50-word cutoff based on a preliminary analysis of a random sample of 100 posts. With the help two research assistants, we coded each for whether the content of the posts contained framing related to standardized testing. We discovered that posts with fewer than 50 words were too concise to contain a codeable instance of framing. After subsetting the data, the final dataset consisted of 2,700 status posts that mentioned testing, of which 756 contained instances of discursive framing.

With the scraped data, I observed the cumulative number of "likes" and comments a post received between the time of its initial posting until the time I scraped the data in Fall 2017. Users can "like" a post, indicating that they agree with or feel positively about the post. Table 3 reports the summary statistics for the Facebook Groups. The average post received 14 likes and elicited 6 comments in response.

[TABLE 2]

In Figure 1, Panel B, I show the number of posts per month and the cumulative number of posts that mentioned testing from September 2012 through July 2014. Discursive activities on Facebook groups were very limited until the 2012-2013 school year, when the number of posts increased dramatically. The two vertical lines indicate the onset of accountability testing, which lasted for two weeks. There is a distinct spike in the number of posts lead up to and during the testing periods, showing that group members became much more active around testing issue during their administration.

Analysis of discursive frames

The analysis of discursive frames occurred in two parts. First, I coded all posts using a two-cycle coding approach (Miles, Huberman, & Saldaña, 2013). In the first coding cycle, I developed coding categories inductively, because I did not know *a priori* how group members would frame issues related to accountability testing. I read each post and coded any mention of high-stakes testing or related issues that characterized testing as problematic or assigned blame for the problem of testing. To create codes, I stayed close to the language of post, only abstracting slightly to make the codes applicable to other posts with substantively similar frames. For example, a post such as:

> The systematic deliberate humiliation of the children of New York State by the NY State Education Department will be neither forgiven nor forgotten. These obscenely low scores are the result they wanted when they chose to score the tests this way. Children crying and doubting themselves.

I coded as "High-stakes testing is emotionally harmful to students," abstracting the phrase "humiliation" into "emotionally harmful."

After completing the coding cycle, I analyzed the discursive frames and grouped related codes into more general pattern codes based on the substance of the frame. These pattern codes form the core of the analysis in this paper. I further grouped the pattern codes into more general orientations that captured the locus of concern that the frames expressed. I determined that the codes had five orientations. Locally-oriented frames cast high-stakes testing as a threat to children and local schools. Socially-oriented frames saw testing as a tool used by malicious actors to harm the public school system. Altruistically-oriented frames characterized testing as harmful to non-dominant populations of students. Technically-oriented frames attacked the construction, use, and validity of the tests as instruments of evaluation. Finally, professionally-oriented frames viewed testing as harmful to teachers. Table 3 displays these orientations and their associated frames.

[TABLE 4]

For the second part, I analyzed the frequency and clustering of frames over time. These dimensions capture the extent to which members across opt-out aligned groups crafted frames into meaningful and compelling narratives. The frequency of frames consists of the number of times group members used a frame and its proportion of the overall number of frames used. A frame that is used repeatedly helps to create an overall narrative for the movement and can become a "master frame" that creates a unified worldview for participants in the movement (Benford & Snow, 2000).

Clustering captures the extent to which frames are deployed in similar ways, which can support the creation of a cohesive narrative that links different types of frames. For example, a member of an opt-out-aligned group may create a post that frames standardized testing as emotionally harmful to children and that the real purpose of standardized testing is to make money for large corporations. Here, the participant creates a link between direct harms that result from testing with the idea that they do not serve an educational purpose, thereby making the harms to children unjustified. Another group member may post that tests do not capture authentic learning and that the real purpose of standardized testing is to line the pockets of corporate entities. Both harms to children and illegitimacy of the test are linked to corporate exploitation of schools. This begins to craft a narrative that corporations are responsible for the problems with standardized tests.

To capture the clustering of frames, I created two two-mode networks–one for the 2012-2013 school year and one for the 2013-2014 school year–where frames were linked to the post that featured them. I then used a one-mode projection to create direct links between frames. In other words, if a group member used frame *i* and frame *j* in a post, I created a direct link between *i* and *j*. Posts frequently featured more than one frame, with the average post containing three frames and the maximum containing nine. The one-mode projection created an *n* by *n* adjacency matrix where each $\{i, j\}$ cell of the matrix was a count of the number of times frame *i* and frame *j* were deployed in the same post. Using the `sna` package in R (Butts, 2016), I then determined the Euclidean distance between each pair of frames. The Euclidean distance is defined as:

$$d_{ij} = \sqrt{\sum_{k=1}^{n} [\,(X_{ik} - X_{jk}) + (X_{ki} - X_{kj})]}$$

where d_{ij} is the distance between frames *i* and *j*. X_{ik} represents the number of times frame *i* appears with frame *k*, X_{jk} represents the number of times frame *j* appears with frame *k*, and so on. The term *n* is the total number of frames in the analysis. The distance d_{ij} is reduced when *i* and *j* have many *k's* in common. Frames that are close together share a similar pattern of deployment. I then used complete-linkage hierarchical clustering to determine clusters of frames based on their Euclidean distance. This algorithm forms clusters based on the largest distance between the members of two potential clusters (Wilks, 2011). Clusters, in essence, are formed by the groups with the smallest largest distance between pairs of frames. I visually depict the clustering of frames using dendrograms.

Discursive framing in the opt-out movement

The analysis of posts revealed 47 distinct frames used by groups members to problematize the use of standardized tests for accountability purposes. These frames ranged from concerns over the impact of testing on classroom practices, to frames that questions the validity of the tests, to suspicions that government or corporate entities use testing to attack public schools. Some frames, like those capturing concerns about the impact on classroom practices, are reflected in the research literature on accountability (Au, 2007; Booher-Jennings, 2005; Dee, Jacob, & Schwartz, 2013; Jacob, 2005; Koretz, 2009), while others, like those expressing suspicions about corporate influence on schools, are reflected in the popular literature (Ravitch, 2013), and thus connect to existing discourse on the use of accountability tests in schools. The totality of these frames forms the discursive field in which the participants in these online communities operated to interpret the problem of high-stakes standardized testing. These frames fell into one of 17 categories based on their conceptual content, as displayed in Table 3.

Using these frames, participants in the opt-out movement crafted four distinct discursive strategies. First, and most salient, group members framed testing as problem impacting children and local schools. These frames stoked concern for the welfare of children by claiming that testing harmed the physical, emotional, and academic well-being of children, and forced schools to adopt poor instructional practices. Such frames bypassed commitments to over-arching political ideologies and instead focused on the acute harms to children wrought by testing. At times, these posts were accompanied by an account of the post's children's experience with testing. Second, activists used frames that questioned the legitimacy of the tests. These frames attacked *technical* aspects of the test, such as its construction, validity, or developmental appropriateness. Third, activists used frames that characterized standardized testing as a threat to the local control of schools and educational resources. The threat could emanate from corporate or government entities, or both. In each case, standardized tests were cast as the main tool used to reduce local control. These frames vacillated between those that encoded a social concern for the state of public schools to those take encoded a local concern for the loss of control over local educational resources. Finally, across frames, participants used a process of particularization, in which the current Common Core-aligned iteration of accountability tests was singled out and distinguished from previous tests, and personalization, in which frames were linked to specific stories of their children's experience with testing. These processes made the need to act acute by framing the problem of testing as specific, immediate, and harmful, forgoing the need to link to ideological commitments as a means of motivating collective action.

Critically, the analysis of how participants deployed these frames over time revealed that participants in these online communities shifted their emphasis away from concerns for the connection between high-stakes testing and broader social issues to concerns that foregrounded

locally-oriented concerns and questions about the technical legitimacy of the tests. While such local and technical concerns were salient in the 2012-2013 school year, by the 2013-2014 school year, they became more prominent and formed a separate narrative within the groups. Frames that expressed concerns for vulnerable populations or the state of public education more generally became deemphasized. Both locally-oriented and technical frames downplayed political issues, which were more salient in frames the highlighted social issues.

In this section, I first present qualitative evidence for the four discursive strategies used by group members. I then draw on the cluster analysis of frames to show that the deployment of these frames changed over time, with local and technical frames taking on a prominent role, while social frames becoming more separated and isolated in deployment, suggesting that participants divorced less ideological frames from those with a more pronounce ideological flavor. Over time, activists increasingly used frames that allow audiences to view testing as a technical and individual problem, deemphasizing it as a social problem that harms the public school system at large or vulnerable populations.

1. Heartburn and test-prep: Direct harms to children and local schools

A frequent charge leveled by members of opt-out-aligned groups was that accountability testing did acute harm to the well-being of children and their schools. The source of this harm was multifaceted. The tests themselves caused harm because they were ambiguous, tricky, or developmentally inappropriate, causing students to become demoralized and to "feel dumb." The preparation for and administration of the tests caused anxiety and fear. The high-stakes nature of the tests turns classrooms into test-prep pressure cookers that created an atmosphere of stress and made children grow to dislike school and learning. The pressures of the test lead teachers to narrow curricula and adopt didactic teaching practices.

The *harm to children* frames took three forms: physical, emotional, or academic harm. Most commonly, group members framed high-stakes testing as responsible for excessive stress that, at times, manifested in physical symptoms. The language used was often extreme, equating high-stakes testing with child abuse and trauma:[1]

> My 8 year old daughter has been complaining of stomach aches for the past few days. She is having so much anxiety over this test. We took her to her favorite restaurant for dinner yesterday in hopes that she would eat! She didn't!!! How come its [sic] alright for the state to put this much pressure in our kids? Isn't this a firm [sic] of child abuse?

Another group member echoes this idea:

> First, I think we are all in agreement that the excessive amounts of standardized testing being forced upon young children is tantamount to abuse, especially when everyone on the front lines of education, namely teachers, are screaming that there is no education value to those tests.

When not explicitly characterizing testing as child abuse, group members frequently cited the stress caused by testing as a reason to oppose it. Typically, these frames were accompanied by stories of the experiences of the children of group members, who recounted agonizing nights of test-prep homework or weeks or anxiety leading up to the test dates. One group member shared a story about her child's growing stress after he began to struggle with reading leading up to the test:

> I just feel this is all too much for him. Now for the last week or so he has been complaining about "heartburn"..he has a burning in his throat and chest..making an appt. for the dr…..a 9 year old with heartburn? I am sure it's the stress at school..this is all so much

Another shared a story of her child's struggle with test-prep homework:

> It was never an issue for my now 10th grader. Doing the test packets at home with my 3rd grader was torture - he was stressed and crying - I can only imagine what it was like in class. He told me crying one time that if he got a 2 on the test, he would get in trouble. We are done[.]

In each case, the group members cast the tests as the source of enormous stress and anxiety that overwhelmed their children and impact their health and daily lives.

Group members also claimed that the tests caused academic harm to students, either by forcing teachers and schools to adopt bad instructional practices and policies or by making children dislike school and learning. The pressures of testing, for example, created a negative atmosphere in the classroom, since it forced teachers to focus on increasing test scores. Many group members claimed that overemphasis on testing caused teachers to adopt "teaching to the test" or "test prep" practice, crowding out genuine learning experiences, as the following two posts express:

> Just to prove how our teachers are being forced to "teach to the test" My son's teacher (6th grader at a middle school) put a list of 50 words up that he told the class they "need to know" to be able to take "the test".....AND this same teacher is now holding 2 periods of Reading.....to do practice ELA's! So much for READING.

> Excessive testing has overtaken the entire educational project, as most of the school day is now given over to teaching to the test. Many of the key functions that schools traditionally served have been reduced or eliminated in the mad rush to improve test scores.

Similarly, group members blamed high-stakes tests for leading schools to narrow their curriculum, deemphasize subjects not tested, and eliminate extracurriculars to make room for more test-related activities. Group members argued that this resulted in an impoverished educational experience for their children and robbed them of a rich and varied curriculum. One

group member argued that the narrowing of the curriculum meant that students missed out on developing important social skills:

> So sad but true. If it isn't going to be tested, it often isn't taught. To [sic] bad tests couldn't be created for ethics, morality and empathy towards others. These are the overlooked social skills that are developed, or should be, early in a child's education. They come through classes such as gym and art and music where children share and create and compete with others. But when these classes are cut and replaced with test prep, the children and we as a society lose out.

Victims of this narrowing of the curriculum included "fun" classes that children enjoy, making school a boring experience:

> More and more, children were coming home bored and angry, telling parents they hated school because all that was going on was "test preparation," and that the activities they enjoyed most- art, music, recess, gym- were being cut to make room for it.

Overall, this group of frames cast accountability testing as harmful to children and their educational experience. These frames lacked an ideological perspective, focusing on the need to protect children and safeguard educational resources. This reflects the frames and motivations people express for joining the homeschooling (Stevens, 2001) and anti-vaccination movements (Reich, 2014).

2. Technical troubles: Attacking the legitimacy of the tests

In a second discursive strategy, group members used frames that highlighted technical issues with the tests. These frames questioned their legitimacy as measures of student learning or teacher ability. As with the *harm to children* and *harm to schools* frames, these frames lacked any particular ideological perspective, and instead focused on the construction or use of the tests themselves. Occasionally, group members linked these technical problems to broader social

problems, such as the role of corporations in public schools, but for the most part, they remained focused on the tests themselves.

With these technically-oriented frames, group members claimed that the tests were poorly designed, with ambiguous or confusing answers, were not developmentally appropriate, did not capture students learning, were not tied to classroom content, were not research-based, or were not validated as instruments of evaluation. Each of these frames chipped away at the central policy purpose of the tests–to gauge student learning and hold schools accountable for progress. If the tests did not measure what they purported to measure, group members argued, they were fully justified in boycotting their administration.

Some of the most prominent frames that members used to attack the legitimacy of tests questioned their use as instruments of evaluation. These frames came in several varieties. Group members claimed that the tests were a narrow and reductive way to evaluate children, using the slogan "children are more than a number." One group member emphasized that such tests missed the "human aspect" of learning:

> Data can be used as a tool to make informed decisions within a school district. However, there comes a time when the data…the numbers…the statistics…is taken too far. When our children are being used as statistics…not to see how well THEY are doing, but to gage [sic] how well our TEACHERS are doing…that is when the data is taken to another level. If you only measure the statistics, you miss the human aspect.

This post also captured another type of frame that attacked the legitimacy of the tests–that the true purpose of the tests was something other than assessing student progress. This group member claimed that the purpose was teacher evaluation. Others claimed that the actual purpose was to collect private information for government or corporate entities.

In another set of frames used to erode the legitimacy of the test, participants claimed that the tests were poorly designed, ambiguously worded, or riddled with errors, invalidating their use

as instruments of evaluation. For some, standardized tests in general were invalid tools of measuring student learning. For others, the particular Common Core-aligned tests were flawed, confusing, with arbitrary proficiency cutoffs, rendering them invalid. One group member expressed this latter point:

> The tests have been here for a while. The difference is teachers used the data from the tests to improve their instruction. These new cc tests are poorly written and we will never be able to use the data effectively because we can't ever see the tests again. And the amount if [sic] time kids need to sit Is ridiculous.

Group members also framed the tests as developmentally inappropriate, again casting doubt on their legitimate use. These frames tended to expressly identify the Common Core-aligned tests as problematic, while previous standardized tests were considered fine. One group member linked the developmental inappropriateness of the Common Core-aligned test to the idea that the tests are abusive:

> I look to these new Common Core standards and every bell in my head is ringing. I ignored these bells in the past and I vowed NEVER to ignore them again. When you introduce mathematical concepts that are developmentally inappropriate, then test that child on these concepts and mark them as having failed, how is that not abusive? You are essentially giving them a task they cannot do and then telling them they are stupid. Now do that over and over and over again. Are these the rigorous results we are looking for? Or is this simply abusive?

Finally, group members challenged the legitimacy of the tests by framing them as meaningless, unable to provide teachers or parents with useful information to drive instruction. In these posts, group members argued that, due to the administration, grading, and proprietary nature of the tests, teachers were unable to use them for diagnostic purposes to guide instruction and help students improve. One member captured this idea succinctly:

> The New York State ELA and Math Tests are given in April, taking up to 6 full days. The results are not given back till August. Worse yet, neither teachers nor parents are allowed to see the tests. This means these time consuming, stress ridden tests, which shape pedagogy for moths [sic] before in many schools HAVE NO EDUCATIONAL VALUE FOR THE STUDENTS WHO TAKE THEM!!! Because of timing and test secrecy, they cannot be used to help individual students identify their weaknesses and improve their skills.

Taken together, group members sought to undermine the legitimacy of the tests by questioning their construction, validity, and purpose. By framing tests in such a way, they aimed to show that the tests were not worth the time and effort, encouraging others to participate in boycotts. As with the locally-oriented frames, these frames managed to avoid explicitly ideological content, relying instead on raising technical problems with the tests. These technical problems made the tests a worthy target of boycotts, since they did not contribute to student learning and were not valid measures, and thus were a waste of time.

3. Hands off my school (system): Threats to public education and local control

Some group members framed high-stakes testing as a threat to the public school system and to the local control over educational resources. These frames came in two distinct flavors. The first framed testing as a tool used by government or corporate entities to exploit or takeover the public school system. These frames expressed a *social*, rather than local, concern for the state of public schools. They also encoded more ideological positions, harboring suspicions for either the role of government in school affairs or the role of the corporations and free-market logics. The second framed testing as a threat to local control over educational resources. These frames expressed a local concern that testing could allow the state government to usurp local decision making and resources. Unlike the first flavor, these frames did not have a notable ideological component or express concern for the public school system at large.

Group members frequently framed the tests as a tool for corporations to exploit or privatize the public school system. In the initial stages of the movement, this frame was among the most salient. Group members claimed that corporate entities used testing to profit off schools and taxpayers, using students as "guinea pigs" and free labor. They viewed tests as a tool to undermine public confidence in schools, paving the way for efforts to expand charter schools and privatize the public school system.

The publishing company Pearson, who developed the tests for New York State at the time, was a particular target for participants:

> FYI, Envisions is a program made by Pearson (the ones who have the big contract to make the Common Core tests). So not only do they make money on the state tests they create, they also sell text books and programs to the schools. Seems like a conflict of interest (I guess their slogan can be, "buy our program, we make the tests!"). So much of this is about privatizing education so big businesses can make money off of the kids and the tax dollars!

In this framing, the group member characterized Pearson as an example of the broader problem of corporate exploitation of schools for profit. In a similar discursive move, group members often framed children as "guinea pigs" of corporations, who used high-stakes tests to extract profits from school districts:

> My child is not a guinea pig for some corporate CEO who is looking to "race to their top" as they siphon middle class tax dollar out of our local school districts and into their BIG WIDE OPEN WALLETS.

Corporations were not the only target of blame. In a more politically-tinged, a group member accused the conservative advocacy group the American Legislative Exchange Council (ALEC) for using testing to privatize schools:

> It is absolute fact that ALEC is behind not only the High Stakes Tests, but behind the data mining and sharing, as well. The goal IS to privatize public education. One cannot remove CCSS [Common Core State Standards] and RttT [Race to the Top] the equation, as that is the driving force behind this.

Some saw testing as a way for corporations to control public schools, determine what is taught, and ultimate takeover the school system. One group members posted this just before the administration of the 2014 math assessment:

> Math assessment coming up. Should you agree that our teachers should be allowed to teach, that over testing and secret tests do not help our children or our schools, that big business should not dictate what goes on in the classrooms of our schools in order to make huge profits - REFUSE!

Other group members saw the same threat emanating from the government, especially the federal government, rather than corporations. The government used tests to control and takeover local schools. These frames often linked to the Common Core or to federal initiatives like Race to the Top:

> And… that standards, curriculum and tests are being "nationalized", ie. the federal government is taking complete control over our children's education through the Common Core State Standards initiative. Never before happened in our country. This is a loss of freedom for education (local schools, school board and teachers) and parental rights. You can read more if desired on Parents and Educators Against Common Core Standards. They have a great many articles which will allow you to do your own research.

These frames often encoded more conservative suspicions about the role of government in the public school system. In the following post, a group member argues that the federal government has developed tests that students will fail, giving them more reasons to meddle in local affairs:

> The problem we have is the government has become too big. We need to remove the Federal Dept of Education and allow the local school districts figure out how to teach our children. The wealthy have nothing to do with this. By implementing difficult tests students will fail, this gives government and unions

> an excuse to hire more teachers and raise our taxes to keep them employed. Remove the bureaucracy, remove big government, an [sic] put control in the hands of local educators. This would give us a more efficient and better education sustem [sic].

While these frames staked out more ideological territory to frame the problem of testing, many group members argued that the government and corporations worked in cahoots to undermine or exploit schools. These frames expressed populist concerns about the role of elites in exploiting the public school system, a sentiment expressed in this post:

> The assessments are not a measure of how well students achieve Common Core Standards. They are a weapon for financial interests to make tons of money while they train our children to work for them. There is not a shred of evidence that the CC assessments are aligned to the Standards…. The assessments are a mechanism for the business interests aligned and empowered by the government to control the education system.

Members often framed politicians as enabling corporate entities to infiltrate and exploit the public school system, using testing to show that school were "failing" and required intervention or closure:

> The tests are designed to prove failure so that many self-interested politicians and corporate masters can say that schools and teachers are failing when the reality is, considering the 20 percent poverty rate and our nations commitment to educate all children, we are number one in achievement. So instead of addressing poverty and social conditions, it is much easier to attack schools and teachers and then funnel public money to private interests, corporations, and charter schools.

The idea that the tests were "designed for failure" was a pervasive theme in these frames. Another group member expressed this, saying "Fail the children, fire the 'under-performing' teachers, close schools and create charter schools." By designing tests that children would inevitably fail, some group members argued, policymakers or corporations could intentionally

undermine confidence in the public school system, justifying closures and the expansion of charter schools.

While group members used these frames to characterize high-stakes testing as a tool for attacking the public school system at large, some framed this idea more locally, as an attack on their local school. These frames expressed concerns that testing was part of an effort to takeover local schools, threatening local control over educational resources. In an extensive post, one group member saw testing as a way for the state government to control her local school:

> My school district is a very healthy and academically thriving school district and I know that the educators here have the pride in their work to always raise the bar and produce quality students who are ready for higher education when they graduate…. The point is that healthy schools from district to district and state to state are being lumped into this reform because people like our Commissioner John King have focused primarily on the issue of failing schools who are failing students from lower socio-economic backgrounds and minorities. I think that is great..focus on those students and schools, but keep your hands off the districts whose taxes have been paid to produce quality and have succeeded thus far. Keep his hands off our tax dollars, our brick and mortar, our children, because while he takes a wrecking ball to those schools who need turn around policies in place…he's taking a wrecking ball to our districts as well.

This group member saw a place for government intervention: in schools that served primarily low-income students and students of color. However, such intervention was inappropriate for her school district.

This set of frames characterized testing as a tool used by pernicious actors to undermine confidence in the school system and to wrestle control away from local communities. In contrast to the preceding frames, these frames expressed a more ideological perspective on testing, requiring audiences to harbor suspicions about the role of the government, corporations, or both

in the public school system. Unlike other frames, these frames were not always cast in local terms, but expressed a broader social concern over the state of public education in America.

4. Particularizing and personalizing the issue of testing

Group members used two discursive strategies when framing the problem of testing. They particularized frames by singling out the current iteration of testing as problematic and different from previous iterations, which were less problematic. And they personalized frames by attaching stories of their children's experiences in schools and at home related to testing. Both of these strategies served to make the need to act acute, since the current iteration of tests were both harmful and different from the more innocuous tests of the past.

Group members particularized the issue of testing by casting the current, Common Core-aligned tests as problematic, in contrast to previous versions. This allowed group members to stake out less radical territory by not opposing testing *per se*. Rather, the adoption of the Common Core standards created the current problems with the tests and required remedy through collective action. Some of the framing tactics discussed above, such as the technical frames, often linked the problem of testing specifically to the Common Core. One group member pointed this out in the 2012-2013 school year, the first year of Common Core implementation in New York:

> The number one issue is not the testing done. ELA's and state tests have always been around. I have five children ranging in age from 25 to 10. Never and I do mean never in all my years of parenting did I see the level of anxiety I see today. Not with my child, he refused the test, but with the entire building. Everyone, uptight, everyone being controlled by this stupid standardized test that is hinged with the common core curriculum. That one fact alone makes the entire testing discussion completely different from when my oldest were testing.

This group members blamed the adoption of Common Core for creating tests that caused excessive anxiety in her children. Frames characterizing the technical problems with the tests cited the Common Core as the reason. For example, one member claimed a litany of technical problems with the "Common Core tests":

> Unlike the exams given by teachers as an aid to instruction, the Common Core tests are secret. Teachers cannot use them to improve learning, because they aren't allowed to see them. Ever. Want to know which questions your child answered incorrectly? Sorry, you're not allowed access to that information. Would you like to see if the test itself contains errors? Oh, you definitely can't do that. Why all the secrecy? Possibly because every version of the tests has been riddled with errors, developmentally inappropriate material and ambiguous questions.

About 18% of the frames were accompanied by a specific reference to the Common Core, with 21% of the frames that cast testing as a technical problem featuring a Common Core reference (Table 5, Panel A).

In a similar rhetorical move, group members often shared stories of their children's experiences with testing as they framed problems. Often, these posts framed testing as a source of excessive stress and anxiety for children, as the quotes in preceding section shows. Group members also used stories to help frame tests as causing teachers and schools to adopt harmful instructional policies and practices, as the following post illustrates:

> My son brought home his "Go Math New York State - Common Core Edition" book today. I asked why and he told me they were finished with it. I checked and they have indeed completed the book. Hmm … almost two months of school left and as soon as the NYS tests are over there's no more of this 'rigorous' curriculum left to accomplish. Can you say "teaching to the test"?

Such accounts provide potential participants in test boycotts with detailed examples of the harms caused by the tests. Such stories primarily accompanied frames that captured local or technical

concerns, with 13% and 11% of those frames containing stories, respectively (Table 5, Panel B). Social movement scholars have argued that the process of personalization is a novel affordability of digital media platforms, providing activists with new modes of dissemination and participation (Bennett & Segerberg, 2013). Personalization allows participants to create personal meaning and connection to the movement, avoiding the need to affiliate with a collective or political identity.

Both particularization and personalization help to confer "empirical credibility" onto the frames that group members deploy. Empirical credibility is important for frames to successfully build support and motivate collective action (Babb, 1996). Connecting to the Common Core and sharing specific stories demonstrates that the frames comport with reality. This can make frames more compelling and generate the resonance scholars argue is key for building support and mobilization.

[TABLE 4]

It is notable that frames expressing socially-oriented, and often ideologically motivated, concerns were rarely deployed with a personalizing story. Of the 190 frames that expressed a social concern, only four contained a story of children's experiences. This illustrates that these frames played a distinctive role in the overall narrative of the group, which the analysis of frame use and clustering over time confirms.

From social to local: Shifting the locus of the problem of high-stakes testing

The preceding analysis described the various framing tactics used by members of opt-out-aligned groups. While the crafting of particular frames is important for building support and encouraging mobilization, how activists deploy frames helps to create unifying narrative themes for the movement. It is clear from the handful of illustrative quotes I chose that participants did

not use frames in isolation, but deployed multiple frames in the same post, often in the same sentence. Frames that are deployed together can help to create links between different ideas about testing, tapping into various reasons that may motivate audiences and creating discursive cohesion. The co-deployment of frames may also reveal multiple narratives occupying competing ideological spaces, suggesting a discursive fracturing of the movement (Benford, 1993). Such fracturing can make motivating social action challenging. In the opt-out movement, participants in online communities deemphasized frames that cast high-stakes testing as a social problem impacting the public school system and vulnerable populations, like low-income students. Frames that captured local concerns–about the impact of testing on the well-being of children and local schools–and those that attack testing on more technical grounds grew in prominence and took on distinctive, independent discursive roles.

Frames that cast testing as a local and technical problem shared a feature that sets them apart from socially- or altruistically-oriented frames: they are politically neutral. Socially-oriented frames, such as those that frame high-stakes testing as a tool used by corporations to privatize the school system, have a more political flavor than those that frame testing as harmful to children. While in the initial stages of the movement, socially-oriented frames were as frequently used as locally-oriented frames, and more frequently than technically-oriented frames, by the 2013-2014 school year, they became less common (Figure 2).

[FIGURE 2]

Analyzing the clustering of frames shows that the discursive role of local and technical frames shifted and became more independent of the socially-oriented frames. Figure 3, Panel A shows the clustering of frames categories for the 2012-2013 school year. There are three distinct clusters of frames. The first cluster contains four frames, two expressing localized concerns (that

tests harm children and that tests lead to poor instructional practices), one expressing a social concern that corporations use testing to takeover public schools, and one expressing technical concerns about the use of standardized tests for evaluative purposes. The next cluster contains three frames capturing local concerns (that testing wastes educational resources, threatens local control, and violates privacy), one captures social concerns about government overreach in public schools, one expressing concerns that testing harms teachers professionally, one expressing altruistic concerns about the connection to social issues related to non-dominant groups, and one addressing the technical issue that testing does not provide useful information. The final cluster contains two frames, one expressing concerns that testing harms students from non-dominant groups and one that expressing the concern that tests are designed to undermine confidence in public schools. Notably, the first cluster occupies a distinct discursive space, while the other two clusters are more closely related.

By the 2013-2014 school year, a distinct change occurred where socially-oriented frames became decoupled from other types of frames (Figure 3, Panel B). They form their own cluster, along with frames that attack the usefulness of the tests. The *harm to children*, *bad instruction*, and *illegitimate evaluation* frames form a separate cluster, suggesting that these frames were deployed in similar ways, creating a cohesive narrative about the use of tests in schools. The remaining frames form a third cluster, composed of frames capturing of variety of local, technical, social, and altruistic issues.

Taken together, this evidence shows that group members deemphasized frames that characterized testing as a means that the government or corporations use to exploit or takeover the public school system and relegated them to unique discursive space. At the same time, group

members increased their reliance on frames that cast testing as harmful to children and local schools and began to use these frames in patterns independent of others.

[FIGURE 3]

Discussion

Participants in social movements use discursive framing to build support and motivate action. Scholars typically conceptualize movements as resting on a shared, if contested, ideological foundation that provides meaning, coherence, and a source of identity (Zald, 2000). A lack of shared ideological commitments can fracture movements (Benford, 1993) or prevent coalitions from forming (Whittier, 2014), making coordinated collective action challenging. Participants in the opt-out movement seek to mobilize a base with diverse potential ideological commitments. The evidence presented here suggests these participants may avoid ideological debates through the use of particular discursive tactics. The most prominent framing strategies the members of opt-out-aligned groups used avoided political or ideological commitments, framing the problem of testing around potential harms to children and to technical issues with their development and use. This discursive work mirrors that of participants in the homeschooling and anti-vaccination movements, which use frames that foreground the need to protect children and the uncertainty of technology (Reich, 2014; Stevens, 2001). Unlike those movements, however, members in the opt-out movement seek to mobilize others to participate in collective action, to get them to join in boycotts of annual tests, and thus not only convince others that testing is a problem, but that it is a problem requiring collective action to remedy.

Exploring the issue of framing in the opt-out movement, I found that while socially-oriented frames that encoded ideological ideas about the role of government and corporations in public education played a prominent role in the initial stages of the movement, they waned in

favor of ideologically-neutral frames focusing on harms to children and local schools and on technical problems with the tests. Group members continued to deploy socially-oriented frames, but their use grew independent of other types of frames. By particularizing and personalizing the problem of testing, group members made the need to act acute, to avoid ongoing harm to children and schools. This sidestepped the need to build ideological consensus among participants.

These findings are important because how participants frame issues without relying on pre-existing ideologies to craft frames and create cultural resonance, despite evidence of the increasingly important role ideological commitments play in shaping people's political attitudes, policy support, and lifestyle choices (Baldassarri & Gelman, 2008; DellaPosta et al., 2015). They extend recent research by Dokshin (2016), who found that support for fracking projects depended on whether they could credibly be framed in terms of local benefits. In this case, members of opt-out-aligned groups relied heavily on personalized frames that saw testing as a direct harm to local educational resources and to children. The use of locally-oriented concerns occurred in the case of mobilization across New York State for collective action, manifesting in boycotts of annual tests. While this study does not directly assess the impact of framing on participation in test boycotts, it provides suggestive evidence that locally-oriented frames played a critical role.

These findings also provide important insights into the role of accountability policies in public schooling. Ideally, advocates of standards-based accountability intend to give parents and policymakers clear metrics for gauging the quality of schools and teachers, aiming to build systemic reform to improve schools (Smith & O'Day, 1991). However, as proponents of framing argue, reality is contested and negotiated. The analysis of framing in the opt-out movement

reveals the ways in which everyday people–parents, educators, concerned citizens–have interpreted the use of high-stakes standardized tests for accountability purposes. Unsurprisingly, many of the frames crafted by group members reflected ideas already present in the scholarly and popular discourse (Koretz, 2009; Ravitch, 2013). However, by particularizing and personalizing, group members framed testing as an imminent threat to children and local schools–not just the manifestation of some government or corporate agenda. Participants did not work to build a consensus regarding the cause of the problems with testing, but focused on the damages wrought by their use.

Moreover, the findings demonstrate that redesigns for already existing policies can activate opposition, despite the longstanding nature of the policy. New York has long had robust accountability policies, which, while subject to debate, did not face the oppositional collective action it has encountered over the past few years. The adoption and implementation of the Common Core State Standards appears to act as a turning point, activating opposition among parents and providing fodder for framing activities. As I show, group members frequently particularized the problem of testing by linking it to the Common Core, making a distinction between the current iteration of tests (problematic) and past iterations (at worst, tolerable). This suggests that policymakers should consider the culture and cognitive implications of policies and their deployment. What policies mean in practice is open to interpretation (Coburn, 2006; Hill, 2001; Spillane, 2000), and stakeholders like parents participate in the process of creating a shared understanding. Online communities, such as Facebook, also provide people with new platforms to disseminate ideas and to promote frames of interpretation (Bennett & Segerberg, 2013).

There notable limitations to these findings. As a single qualitative case study, it is challenging to generalize to other social movements. Given similarities to the homeschooling and anti-vaccination movements, it is possible that movements related to the well-being of children are uniquely able to mobilize a base that lacks ideological unity, in which case the framing tactics described here may have limited use for other social movements. In addition, the opt-out movement is a nationwide movement, present in most states. Conditions in other states may differ from New York and thus the framing processes may also differ. Future research on the movement in other states, both those with successful mobilization and those without, is needed to determine if the processes described here apply more generally to the movement.

Second, the data are limited to public expressions of movement activists. Much of the work of social movements occurs in face-to-face interactions and the settings like "free spaces" (Polletta, 1999). There were many private Facebook groups aligned with the opt-out movement in New York. The discursive processes in these private spaces may look different and play a different role in mobilization. However, building public support and attracting new members is part of the critical work of framing, and therefore the public nature of these groups is important to the design of the study.

Finally, I do not make claims about the effectiveness of these framing activities. My data are limited to documenting the processes that activists engaged in on these online forums. I cannot determine, for example, if the frames used successfully motivated people to join these groups and the movement, or if people who joined shifted the conversation to more locally- and technically-oriented concerns. In other words, the direction of causality is unclear.

Conclusion

While standardized testing is a perennial part of public education in the United States, its exact role is contested. The emergence of the opt-out movement has revealed the depths of animus to the current iteration of accountability testing (Pizmony-Levy & Green Saraisky, 2016; Wang, 2017). Boycotts have spread widely throughout New York State, creating problems for the use and validity of annual standardized tests for accountability purposes. This study revealed a variety of discursive frames used by participants to characterize the problem of testing, with the aim of building support and mobilizing oppositional action.

By studying the process of discursive framing over time in online communities, I show both great diversity in the ways participants framed the problem of testing and increasing coherence in the overall narrative–one that moved away from socially-oriented concerns to locally- and technically-oriented concerns. Using digital trace data allowed me to observe changes in framing over time and to observe a wider variety of frames than traditional studies of framing typically allow. I showed the evolution of the framing strategies used by participants in the opt-out movement, giving us a better understanding of their grievances and how the discourse on standardized testing has changed. Policymakers and researcher should attend to these shifting discourses to better understand how policies create constituencies that may mobilize in opposition (or support). Such mobilization has the potential to undermine the legitimacy of education policies, potentially leading to wasted resources and efforts.

While past research has suggested that a base of compatible ideologies forms the core of social movements (Snow et al., 1986; Zald, 2008), providing meaning and identity that motivates and mobilizes participants, there is increasing attention to factors that overcome ideological differences to build support for policies (Dokshin, 2016; Feinberg & Willer, 2013, 2015). By exploring a movement that seeks to mobilize a diverse base of parents and concerned citizens, I

show how discursive processes need not rely on shared ideologies that serve as a resource for meaning-making and resonance when activists craft frames. Attention to how education policies create the conditions for movements to emerge and mobilize can serve to enlarge our understanding of both the policy process in education–which extends beyond policy creation and implementation–and the origins of social movements more generally.

Notes

I conducted all analyses in the R programming language (R Core Team, 2018), using the following packages: `RQDA` (Huang, 2018) for qualitative analysis; `dplyr` (Wickham, François, Henry, & Müller, 2018) and `reshape2` (Wickham, 2007) for data manipulation, cleaning, and analysis; `ggplot2` (Wickham, 2016), `patchwork` (Pedersen, 2017), and `ggdendro` (Vries & Ripley, 2016) for creating and displaying visualizations; `igraph` (Csardi & Nepusz, 2006) and `sna` (Butts, 2016) for creating frame networks and cluster analysis; `zoo` (Zeileis & Grothendieck, 2005) for time series analysis; and `huxtable` (Hugh-Jones, 2018) for the creation of tables. I thank the authors of these packages for their efforts.

[1] I present the text of the posts verbatim, only making corrections when necessary for clarity. By presenting them verbatim, I hope to capture the urgency of the posts and well as the creative use of punctuation and capitalization, which can also convey meaning.

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Tables

Table 1 – Opt-out-aligned Facebook group in the study

Group Name	Region	Group membership	# of Posts
Alliance for Quality Education - Hudson Valley	Hudson Valley	461	1
Alliance for Quality Education of New York	New York State	11994	2
Avengers of the Core	Unadilla Valley	50	10
BH-BL and Capital District Parents Against Common Core	Burnt Hills - Ballston Lake	667	92
Delaware County for Public Education	Delaware County	252	27
Get the Vote Out 2016 To Repeal Common Core	New York State	280	4
Hampton Bays Parents for common SENSE education	Hampton Bays	158	51
Heads Down, Thumbs Up, Hudson Valley, N.Y.	Hudson Valley	473	14
Kings Park Advocates for Education	Kings Park	552	8
Long Island Opt-out Info	Long Island	23797	1279
Long Island Parents and Teachers Against Standardized Testing	Long Island	1056	1
Movement of Radical Educators - UFT	New York City	4949	10
North Shore Parent Action Committee	North Shore	257	25
New York State Allies for Public Education	New York State	6489	15
Ossining Citizens for Schools	Ossining	257	1
Opt Out Central New York	Central Region	4099	249
Putnam County NY Stop the Common Core-Parents and Teachers	Putnam County	58	2
Pencils DOWN Rockland County	Rockland County	1319	26
Parents for Change - Warwick	Warwick	568	2
POB Parents for Common Sense Education	Plainview-Old Bethpage	809	88
ParentVoicesNY	New York City	512	2
Rethinking Testing: Mid-Hudson Region	Hudson Valley Region	1197	12
Sachem Community Alliance for Public Education	Sachem	640	32
Stop Common Core - Ballston Spa Central School District	Ballston Spa	102	2
Stop Common Core in New York State	New York State	14514	11
SECS Parent Advocate Group	Sherburne-Earlville	397	27
Staten Island - Know "Common Core"	Staten Island	576	15
Spackenkill Community Alliance for Public Education	Spackenkill	307	29
The Other Stop Common Core in New York State	New York State	283	34
United Islands against Common Core - Staten & Long	Long Island and Staten Island	204	6
Worcester Community for Education	Worcester	236	31

Note. Group membership as of Fall 2017. Number of posts includes all posts that mention testing between 2010 and 2014, regardless of if that posts contained an instance of discursive framing.

Table 2 – Summary statistics for posts to opt-out aligned Facebook groups

	Mean	SD	Max	Min
Number of likes	14.16	50.04	1358	0
Number of comments	5.99	13.30	163	0

Table 3 – Frames used by members of opt-out-aligned Facebook Groups

Altruistically-oriented frames	
High-stakes testing is harmful to non-dominant students	**HST_harm_nondom**
High-stakes testing is harmful to English language learners	HST_harms_ELLs
High-stakes testing is harmful to low-income children	HST_harms_lowSES
High-stakes testing is harmful to students with special needs	HST_harms_swd
Locally-oriented frames	
High-stakes testing allows for others to access private data	**HST_access_privat**
High-stakes tests are a threat to privacy	HST_threat_priv
High-stakes testing is a waste of time or resources	**HST_waste_resour**
High-stakes testing takes time away from genuine instruction and learning	HST_waste_instruc
High-stakes testing is a waste of school resources	HST_waste_resou
High-stakes testing has a negative financial impact on schools	HST_neg_finan
High-stakes testing is emotionally, physically, or academically harmful to children	**HST_harm_children**
High-stakes testing is driving away good teachers	HST_drive_out_t
High-stakes testing turns children into robots, eliminates critical thinking	HST_elim_critical
High-stakes testing demoralizes students	HST_demoral
High-stakes testing is harmful to student learning because it undermines teachers	HST_undermine_t
High-stakes testing harms the relationship between students and teachers	HST_harms_s_t_rela
High-stakes testing is emotionally harmful to children	HST_harms_kids_emo
High-stakes testing causes excessive stress and anxiety that manifest as physical symptoms	HST_harms_kids_phys
High-stakes testing is child abuse	HST_abuse
High-stakes testing makes students feel dumb	HST_kids_feel_dumb
High-stakes testing creates negative atmosphere in classroom	HST_neg_atmo
High-stakes testing robs children of their childhood	HST_robs_childhd
High-stakes testing ruins students' view of education	HST_ruins_schl
High-stakes testing leads to bad instructional practices and policies	**HST_bad_instruc**
High-stakes testing leads to inferior teaching practices	HST_bad_Instr
High-stakes testing leads to teaching to the test/excessive test prep time	HST_excess_test_prep
High-stakes testing leads to narrowing of the curriculum	HST_narrow_curr
High-stakes testing leads to one-size-fits-all instruction	HST_one-size_instruc
High-stakes testing leads to rote learning	HST_rote_learning
High-stakes testing takes the fun and creativity out of teaching	HST_elim_create
High-stakes testing takes joy, creativity, love out of school	HST_elim_joy
High-stakes testing takes time away from genuine instruction and learning	HST_miss_learning

High-stakes testing threatens local control of schools	**HST_threat_local_cont**
High-stakes testing threatens local control of schools	
Professionally-oriented	
High-stakes testing is emotionally, physically, or professionally harmful to teachers	**HST_harm_t**
High-stakes testing demoralizes teachers	HST_demoral_t
High-stakes testing causes excessive stress and physical problems for teachers	HST_harms_t_phys
High-stakes testing intimidates teachers	HST_harms_t_emo
Socially-oriented	
Corporations use testing to takeover or exploit schools	**Corp_HST_takeover_exploit**
Corporate entities use high-stakes testing to takeover the school system	Corp_HST_takeover
Children are guinea pigs for corporations	Corp_exploit_kids
Corporate entities use high-stakes tests to profit off children and schools	Corp_HST_exploit
High-stakes tests are designed to harm schools	**HST_design_harm**
High-stakes tests are designed to make schools to fail	HST_Designed_Failure
The federal/state government uses testing to undermine or takeover schools	**Gov_HST_takeover_exploit**
Government entities use high-stakes tests to undermine or take over schools	Gov_HST_takeover
Politicians manipulate scores for political purposes	Pol_manipul_scores
Technically-oriented	
High-stakes testing is not a legitimate means of evaluation	**HST_illegit_eval**
High-stakes tests are confusing or ambiguous	HST_confusing
High-stakes testing is not developmentally appropriate	HST_dev_inappr
High-stakes tests do not capture authentic learning	HST_not_authen
High-stakes tests do not measure teacher effectiveness	HST_not_t_effect
High-stakes testing is over-used and excessive	HST_excessive
High-stakes tests are not validated or flawed	HST_flawed
High-stakes testing is a narrow way to evaluate children	HST_narrow_eval
High-stakes tests do not measure standards or curriculum taught in class	HST_no_connect
High-stakes tests do not provide meaningful information	**HST_not_useful**
High-stakes tests meaningless and do not provide useful information	HST_Meaningless
High-stakes tests are kept secret from teachers and parents	HST_Secretive

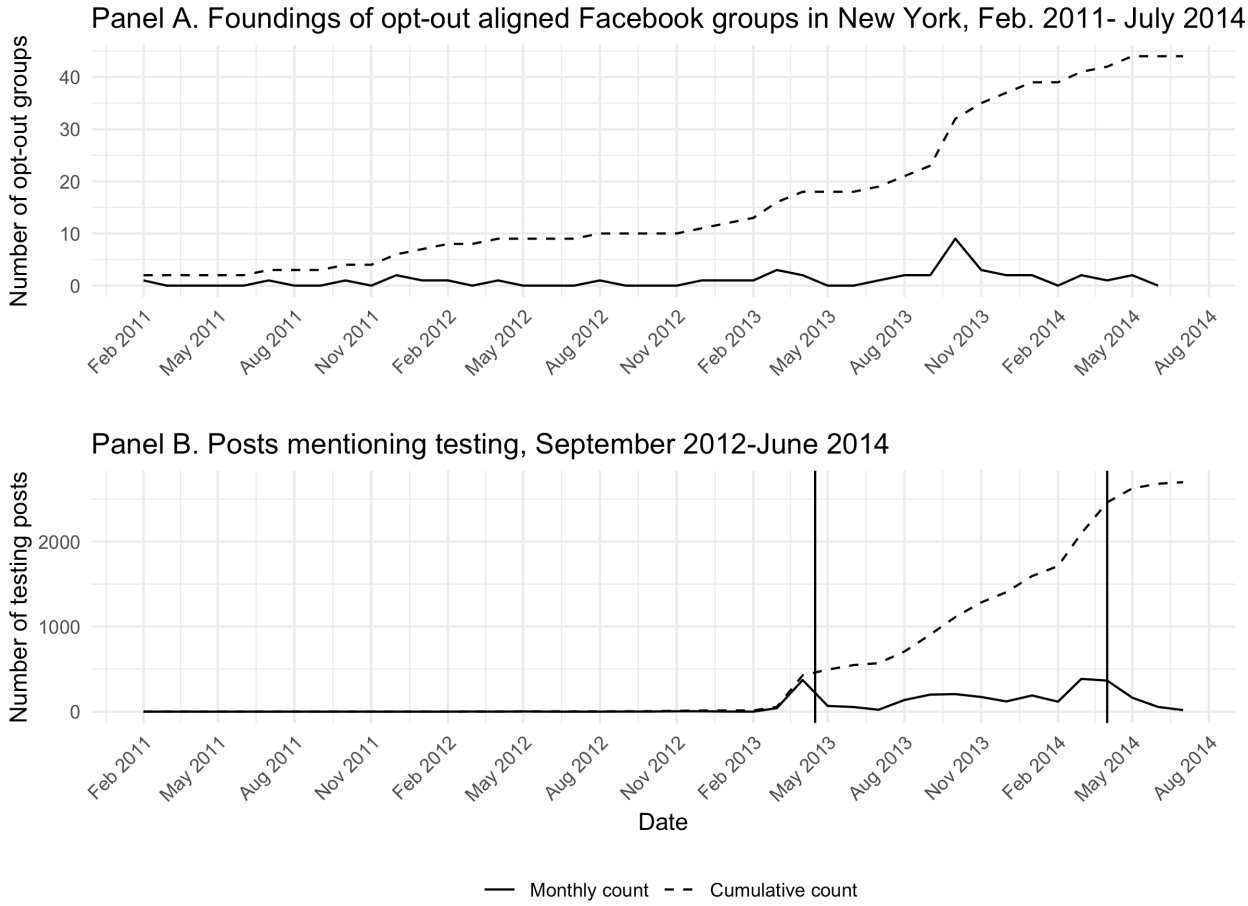
Note. Bolded frames represent category frames that capture the substance of the subsequent frames. Included frames were used at least five times by group members.

Table 4 – Count and percentages of frames by orientation

Orientation of frame	# Mentioning Common Core	Total	%
Altruistic	5	41	12.2
Local	50	299	16.7
Professional	4	22	18.2
Social	30	190	15.8
Technical	57	261	21.8
Overall	146	813	18.0
Orientation of frame	# Sharing story	Total	%
Altruistic	1	41	2.4
Local	39	299	13.0
Professional	0	22	0.0
Social	4	190	2.1
Technical	29	261	11.1
Overall	73	813	9.0

Figures

Figure 1 – Count of founding of opt-out-aligned Facebook groups and posts mention testing between February 2011 and July 2014



Note. Solid vertical lines show the onset of annual accountability testing for the 2012-2013 and 2013-2014 school years.

Figure 2 – Count and cumulative count of frames over time by orientation

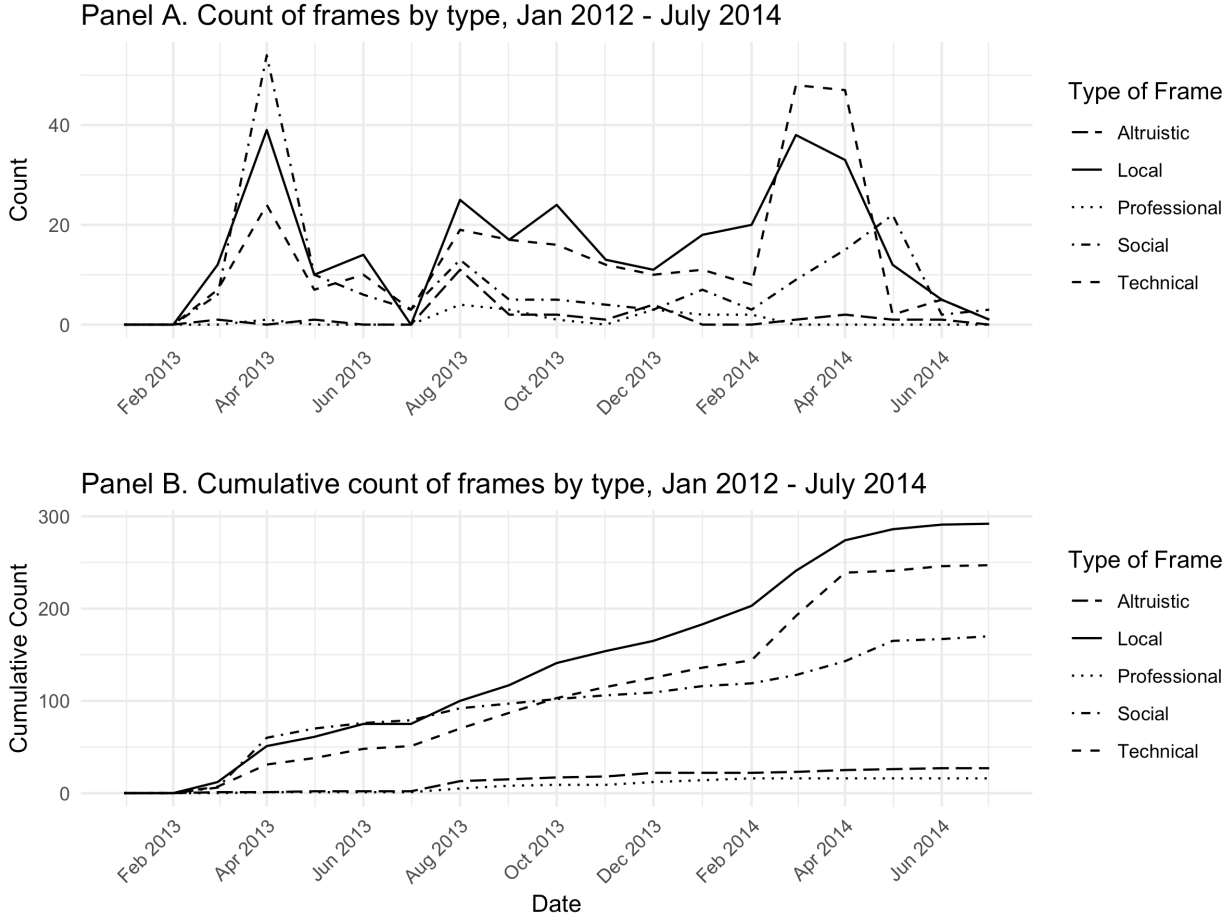
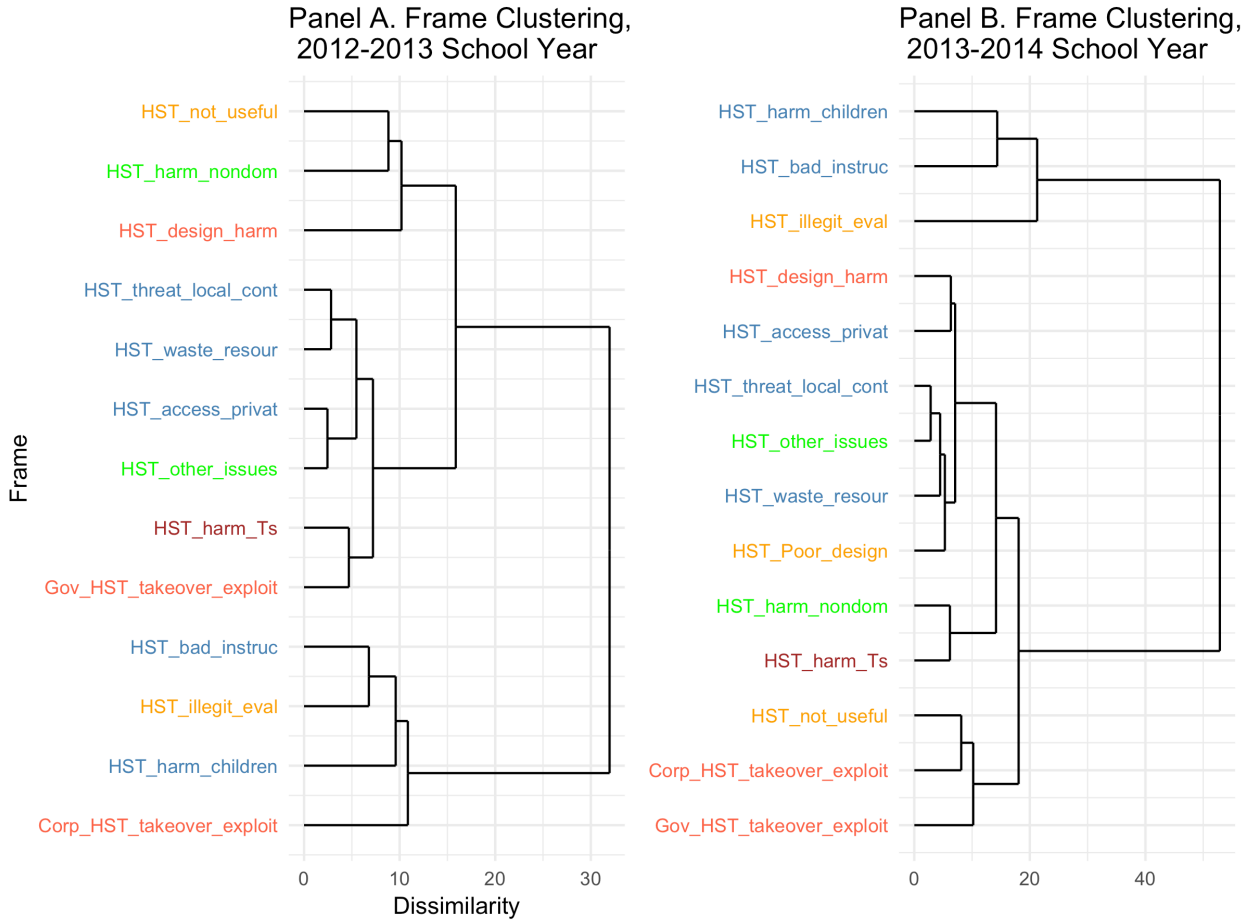


Figure 3 – Hierarchical Cluster of Frame Co-Deployment for the 2012-2013 and 2013-2014 school years



Note. Dissimilarity in frames determined by the Euclidean distance between the pattern of co-deployment between pairs of fames. Clusters determined by hierarchical clustering using the complete-linkage method. Colors represent the orientation of the frame. Blue = locally-oriented; red = socially-oriented; orange = technically oriented; green = altruistically-oriented; brown = professionally-oriented. Definitions of abbreviations available in Table 3.