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Environmental groups' communication strategies in multiple media

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Studies in political science and communication note that interest groups simplify and dramatise issues in order to gain public support. Through a focus on US environmental organisations, this negative assessment is re-evaluated by examining the influence of two sets of factors on groups' communication styles: communication forum and group characteristics. Using content analysis of group communications across several media, criticisms of groups are shown to be overstated; in particular these groups do not engage in wholesale simplification of complex issues. Further, groups' communication styles reflect their responses to varying audience interest levels rather than some pathology of fundraising and organisational maintenance.

Keywords: environmental organisations; environmental activism; Internet; communication; climate change

Introduction

Political scientists have long conceptualised interest groups as intermediaries between government and its citizens. These groups should both articulate public preferences to government officials and educate the public about government activities (Arnold 1990, Kollman 1998). However, both academic research and popular perceptions suggest that interest groups have not lived up to this idealised role. Studies in political science and communication suggest that groups simplify issues for public consumption and decrease the quality of public debate by relying on inflammatory rhetoric (Swanson 1992, Dillon 1993, Lange 1993). Through a focus on 210 US environmental organisations, I re-evaluate this negative assessment, postulating that groups actually have an incentive to educate their audiences about the complexities of policy issues. Using a content analysis of interest group communications across a range of media, I show that criticisms of interest groups are overstated: groups do not engage in wholesale simplification of public policy issues, but rather vary their

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communication styles according to audience characteristics. Contrary to the claim that mass-membership organisations are especially guilty of relying on simplistic accounts, I also show that group characteristics play a minimal role in explaining their communication styles. Ultimately, the evidence I present suggests that interest groups can play a positive role in educating the public about complex public policy issues.

The prevailing negativism

This study represents a divergence from scholarship that suggests interest groups place organisational maintenance above other substantive objectives, such as influencing policy, educating the public, or encouraging political participation (Wilson 1974, Dowie 1995). While many scholars note the positive role interest groups play in representing particular constituencies (Berry 1984, 1999, Mundo 1992), numerous studies emphasise the anti-democratic tendencies of voluntary associations. According to Michels' (1915) 'iron law of oligarchy', groups are often captured by leaders who focus on maintaining their power, sacrificing membership involvement in the process. The movement away from community-based groups to professionalised, mass-membership organisations in the twentieth century has led to increasing scepticism about the ability of these organisations to involve their members in the political process (Skocpol 1999, 2003, Putnam 2000, Brulle 2010). In particular, these groups are accused of cultivating 'chequebook members' who contribute financially, but otherwise have little input in organisational decision-making (Jordan and Maloney 1997, Maloney 2007, Barakso and Schaffner 2008).

In their pursuit of so-called chequebook activists, groups are said to select campaign priorities based on their fundraising potential rather than on their actual urgency or importance. Dowie (1995) provides the example of an environmental group prioritising photogenic baby harp seals over issues more central to the group's mission or to promoting a healthy environment. Huddy and Gunnthorsdottir (2000, p. 751) discuss the emotional appeal of 'charismatic' creatures, noting that groups might favour campaigns to save attractive animals – for which building public support is easy – over causes with 'deeper intellectual merit'. Addressing the influence of corporate and foundation support, Brulle (2000) and Dowie (1995) raise the concern that environmental groups tailor their advocacy efforts to align with the preferences of major donors, thus potentially straying from the groups' core missions.

In addition to influencing campaign priorities, fundraising pressures are posited to influence groups' communication strategies and political tactics. Numerous studies evaluate the ways that interest groups use rhetoric to maximise attention to and support for their issues – for instance, by using highly emotive rhetoric (Godwin 1988) or focusing on harms rather than potential benefits (Shellenberger and Nordhaus 2004). Noting that fear of disaster can be highly effective in generating financial support, Jordan and

Maloney (1997) find that groups may exaggerate crises in their direct mail campaigns. Similarly, Kelman (1981) suggests that groups recruit members by making inflammatory statements to polarise debate and create a sense of crisis. While presumably effective in generating financial support, such rhetoric is viewed as manipulative, allowing groups to yield the benefits of public support without having to truly educate citizens about the intricacies of policy issues (Godwin 1988, Sanera and Shaw 1996, Knudson 2001). Regarding political tactics, Shulman (2009) suggests that environmental groups use mass email campaigns to retrieve data that they can later use for membership recruitment efforts. Further, Shulman argues that groups fail to educate their supporters about how to maximise the impact of their public comments, leading to superficial and ineffective public participation. In short, the focus on organisational maintenance may work against meaningful public involvement in the policy process and may diminish groups' accountability to their members.

Environmental focus

In re-evaluating these criticisms, this study focuses on groups working in the environmental policy area in the United States. The United States serves as an appropriate case, given the vast number and diversity of the interest groups active in American politics. Namely, federalism and separation of powers offer numerous access points into the policy process, thus encouraging the proliferation of (and competition between) groups, especially in the area of environmental policy (see Baumgartner and Jones 1993). To address claims made against interest groups, an empirical focus on *environmental* groups and issues brings additional advantages. First, environmental issues involve considerable scientific complexity. As Jamison (1996) notes, environmental issues such as global warming and the dangers of decreasing biodiversity are products of scientific research. However, scientific findings do not automatically become issues of public debate; rather, interest groups serve as one of the intermediaries that translate these findings into policy issues that the public can understand. Since my aim is to demonstrate that groups do not simplify issues for public consumption, it is important to study communication about complex issues that ostensibly *could* be simplified through rhetoric.

Second, the environmental focus is appropriate to the extent that scholars have been particularly critical of US environmental groups. Since the beginnings of the environmental movement, environmental groups have transformed from grassroots organisations to professionalised organisations with multi-million dollar budgets (Dowie 1995, Shaiko 1999, Bosso 2005). With this transformation has come the criticism that groups have allowed fundraising to crowd out other objectives. Additional factors suggest that the environmental policy area is particularly worthy of study as a 'critical case' in which we would expect to see the embodiment of the worst pathologies of interest groups. Along with the tremendous growth in the number (and size) of

environmental groups has come increased competition for public and foundation support (Shaiko 1999, Bosso 2005). Contributing to this competitive environment is the problem of high turnover rates in group memberships, which may reflect the fact that Americans' support for environmental protection is wide, but shallow. While a majority of Americans ostensibly support environmental protection, that support dwindles in the face of trade-offs between environmental protection and economic growth (Shellenberger and Nordhaus 2004). Given these factors, it appears that environmental groups face strong incentives to place fundraising above other goals and to use simplistic, crisis-oriented rhetoric to gain advantage. If environmental groups *do not* rely on inflammatory rhetoric, the findings are also likely to generalise to other complex issues, such as health care or trade policy.

Expectations

I evaluate the role of two sets of factors in explaining groups' communication strategies: 'communication forum' and group characteristics. The first of these refers to the various media in which environmental groups communicate – email, websites, and newsletters, to name a few. Previous studies have focused on a narrow subset of interest group communications – namely, direct mail, press statements, and email (Godwin 1988, Lange 1993, Shulman 2009). Their findings are unlikely to generalise across media. Another problem with these analyses is the assumption that simplified rhetoric reflects some pathology of the groups themselves. For instance, upon finding use of dramatic catch phrases in environmental groups' press statements concerning the spotted owl controversy, Lange (1993) concluded that such language is a *general* reflection of groups' communication strategies in seeking to build public support for their campaigns. Further, she attributed 'the sorry state of political communication' to the prevalence of such rhetoric in public policy debates (Lange 1993, p. 254). In fact, groups may use simplistic, dramatic rhetoric *primarily* in press statements, using different rhetorical styles in other media. This is especially likely given the tendency of journalists to select new stories that highlight conflict and controversy (Bennett 1983).

More generally, I expect groups to vary their communication styles across forums, based on the purpose of the communication and the characteristics of the audience. Rather than focusing on the incentive groups face to simplify their rhetoric, this expectation reflects a potentially strong, countervailing incentive for groups to educate various audiences about the complexities of public policy issues. Namely, well-educated supporters can signal to policy-makers that organisations represent highly salient issue positions, thereby increasing the groups' political influence. As evidence of this, poll data indicate that constituent communications to policymakers are most effective when they appear to be well-informed, thoughtful, and show evidence of substantial effort (Kollman 1998). Additionally, my own interviews with environmental group

representatives highlight the value of an informed public for advocacy.[1] As a representative of the National Environmental Trust stated, 'The public is our main audience . . . It's the trunk of the tree, through which we might reach the branches (the policymakers)' (R. Vandermark, personal communication, 19 March 2007). Articulating the importance of a knowledgeable citizenry, a representative of Defenders of Wildlife stated, 'People are better advocates if they are informed advocates' (M. Lesky, personal communication, 23 March 2007). However, some audiences may not have the interest or motivation to process complex, policy-related information. Such audiences may support the groups' aims and willingly participate in some fashion; thus, they are still useful to organisations seeking to demonstrate the popularity of their issue positions. Given this variation in interest levels, groups are likely to provide greater complexity of information to audiences with high motivation to process such information and more simplified accounts to audiences with limited interest and/or time. Thus, for instance, groups might provide more substantive information to reporters or government officials – motivated by their professional imperatives – than to the general public. It is also likely that groups will differentiate among audiences within the general public, providing more detailed information to those citizens who are highly interested in public policy issues. While groups' public communications may, to some extent, involve the use of dramatic and/or simplified rhetoric, I argue that such rhetoric represents just one component of a broad range of communication styles.

H1: Groups provide greater depth and complexity of information to audiences with greater interest in and motivation to process such information.

In addition, two group characteristics – membership status and financial resources – are important in this re-evaluation of the critique of interest groups. Presumably, membership organisations have little incentive to provide complex explanations of policy issues to the extent that they are able to recruit and retain supporters via simplistic accounts. Likewise, resource-rich organisations might be expected to prioritise fundraising – and the rhetoric associated with this objective – over public education in order to maintain high levels of spending. However, I argue that differences in communication styles as a function of group characteristics are likely to be minimal. Because mass membership organisations derive much of their political clout from building broad-based public support, it is reasonable to assume that these groups direct their communications to the general public to a greater extent than non-membership groups, such as think tanks or non-profit law firms. Yet both types of organisations engage in public outreach and communicate to diverse audiences with varying interest levels. Some non-membership organisations even employ the same fundraising techniques as membership organisations (Bosso and Collins 2002). Furthermore, both types of organisations have an incentive to educate their respective audiences, given that the voices of articulate, well-informed supporters serve to advance their advocacy efforts. Within particular

communications forums – in which audience interest levels are comparable – different groups are likely to employ similar communication styles.

   H2: Groups' membership status and financial resources are unrelated to their communication styles.

Research data

Data for the study were drawn from a population of 210 US environmental organisations, identified in 2006 through searches of four directories of environmental organisations and one general directory of interest groups.[2] The two major criteria for inclusion in the study were that groups work on national-level environmental issues and have websites. Professional associations and trade associations were excluded from the study, since these organisations generally do not solicit financial and/or political support from the general public. I also excluded groups that do not seek to shape public policy, since these organisations do not face the same incentives to educate various audiences for the purposes of strengthening their advocacy. Finally, coalitions were excluded, for the reason that many of the member organisations in coalitions are already included in the sample. I *did not* exclude groups that work on international, regional, or state issues, as long as those groups also work on national-level issues in the United States.

   Ultimately, I cannot claim that the sample encompasses the total population of environmental organisations that meet the above criteria. It does, however, represent considerable diversity of group characteristics, such as financial resources, membership status, and issue focus. Data on groups' staff sizes and financial resources were gathered from I-990 tax forms.[3] These tax forms are required for non-profit organisations with annual revenue exceeding $25,000. Data on groups' membership status were gathered from groups' websites and from the Associations Unlimited directory.[4]

Research methods

The primary research method in this study is a quantitative content analysis of written statements in six different media: direct mail, email, websites, print newsletters, press releases, and congressional testimony (see also Merry 2010b). These media represent a range of communication purposes and audience characteristics. Most of the texts included in the sample are from 2006 and 2007, with the notable exception of congressional testimony; since many groups have not testified before Congress in recent years, the date range (1997 to 2007) is broader. Direct mail pieces were acquired by sending requests via email to all groups in the sample. Emails were sampled by visiting groups' websites and signing up for their email lists. Websites were sampled between February and June of 2007. Print newsletters and press releases were acquired via groups' websites. Congressional testimony was acquired by searching for group names in the witness affiliation field of the Lexis-Nexis Congressional Universe database.

For each group, one statement from each communication forum was collected and analysed. This approach assumes that a group is unlikely to dramatically vary its communication style from one direct mail piece to the next, or one newsletter to the next, for instance.[5] The one exception to this is email, for which I identified three distinct types: action alerts, fundraising emails, and newsletters. Thus, for some groups, I sampled up to three emails, depending on the number of different types of emails those groups provided. Additionally, since not all groups communicate in all six media, the number of communications sampled varies across forums.

For direct mail, email, press releases, and congressional testimony, the unit of analysis is the entire document. Websites are treated differently in that each website is separated into three units of analysis. The first coding unit is the website homepage. The second is the next web page displayed after clicking on the link to the top issue or campaign listed on the homepage. The third unit is the next web page displayed after clicking on a link from the second page.[6] In short, these coding units capture three layers of any group's website and are separated in the analysis in order to determine the extent to which they vary in communication style. Print newsletters are also treated differently in the sample. From each newsletter, four pages were sampled; these pages were chosen by identifying the issue-related content and randomly selecting one or more stories, until the four page limit was reached. One variation on this was used in the case of organisations that do not provide full-text PDF versions of their newsletters online. Some of the large national organisations, such as the Sierra Club and National Wildlife Federation, provide only excerpts or links to a few stories from the latest issues of their magazines. For these organisations, I clicked on the links or sampled the excerpts provided until I reached the estimated equivalent of four pages. Table 1 illustrates the number of texts sampled from each communication forum.

Table 1.   Number of texts sampled in each communication forum.

Forum	Number of texts sampled
Direct mail	75
Email – fundraising	26
Email – action alert	58
Email – newsletter	87
Web page 1 (Homepage)	210
Web page 2	210
Web page 3	177
Print newsletter	90
Press release	108
Congressional testimony	84
Total	1125

Additional data come from a case study of communications about climate change and from interviews I conducted with ten environmental group representatives in Washington, DC, in March of 2007.[7] The individuals I interviewed all specialise in communications and/or public outreach, and the questions I asked dealt with the role of public education in environmental groups' missions and communication strategies in different media. These interviews helped to illuminate how environmental groups think about their audiences and how they vary their communication styles in response to audience characteristics.

Content analysis measures

While it may be intuitively easy to distinguish between simplistic rhetoric and informative, reasoned discourse, the task of operationalising this distinction in a content coding scheme is less straightforward. One option is to use the construct and associated coding scheme of integrative complexity, whereby written documents are coded along two dimensions: differentiation, or the number of aspects of an issue taken into consideration; and integration, or the extent to which conceptual connections are developed among these different aspects of judgement (Tetlock 1984, Dillon 1993). While this measure may help to determine whether groups discuss issues in black-and-white or more nuanced terms, there are at least two disadvantages of this approach. First, the coding scheme requires that documents be coded manually, which can be problematic for large datasets. Second, the coding scheme typically uses the paragraph as the scoring unit; this approach may pose challenges in the coding of websites, in which information may *not* be presented in paragraph form.

As an alternative means to assess whether groups convey the complexities of policy issues, I employ the Flesch-Kincaid Grade Level statistic, a measure of language complexity. This statistic uses sentence length and word length to determine how easy a piece of text is to read and understand, with longer words and sentences denoting greater difficulty (Klare 1963). The grade level scale indicates the number of years of education required to understand a given text.[8] For instance, a document with a grade level of 9 would be understandable to the average student in the 9th grade (around the age of 14–15 in the United States).[9] This measure has been used in education, journalism, and health policy research to assess readability of textbooks, informational brochures for patients, and news articles, respectively (D'Alessandro *et al*. 2001, Jung 2003). However, it has rarely been used to evaluate political information. The advantage of this measure is that it easy to interpret, is among the most common readability statistics in use in the United States, and is simply and reliably calculated. It is also related to a more substantive notion of what it means to convey complexity; that is, communications that explain the substantive details of policy issues are likely to contain longer words and sentences. The primary limitation of this measure is that it focuses on structure as opposed to actual content of communications. The in-depth analysis of communications about climate change addresses this shortcoming by assessing the content of communications and the extent to which groups convey the complexities of policy issues.

Findings

Figure 1 illustrates mean grade level scores of statements across all communication forums in the study.[10] The forums are ordered so that those directed to the widest audiences – including, typically, members of the public – are on the left, while those designed to educate more specialised audiences are on the right.

Across all communication forums, the average grade level does not drop below 10, meaning that some high school education is required for readers to understand most of the communications in the sample. However, the absolute grade levels within forums are less important than the ways these communications differ from other sources of information, such as newspapers and scholarly journals, and from communications in other forums in the sample. To explore how these communications differ from other sources of information, I measured the grade levels of news stories in two major newspapers, *The New York Times* and *USA Today*. For each newspaper, I randomly selected 12 stories covering politics or government during the month of April 2008 – including some stories on environmental issues – and calculated the average grade level across the stories. The mean grade level for *The New York Times* stories was 14, while the mean for *USA Today* stories was 12.8. For both papers, grade levels of individual stories varied between 10 and 15. Thus, most of the communications in the sample are within the range of grade levels seen
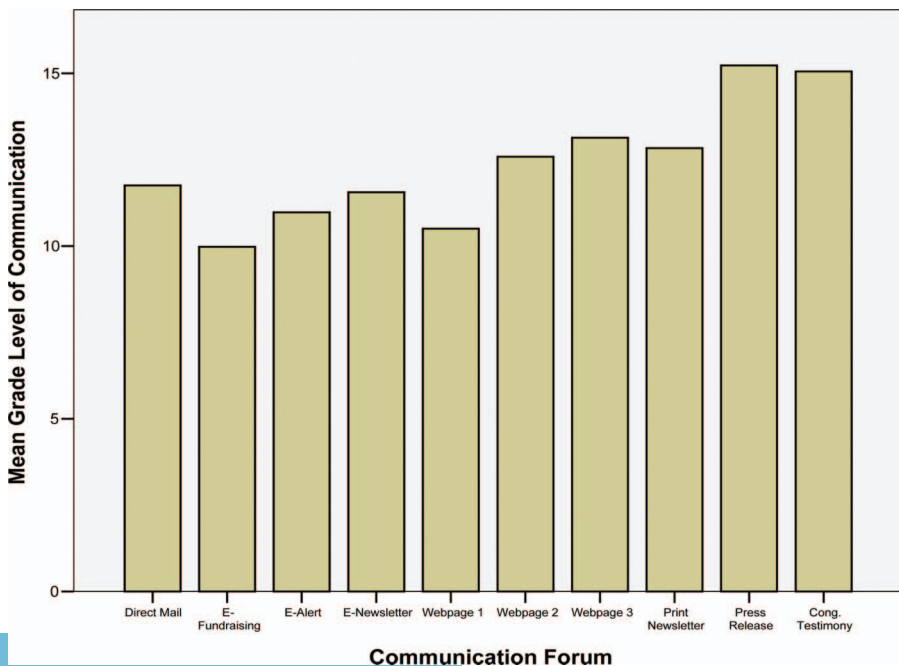

Figure 1.   Mean Flesch-Kincaid grade level separated by communication forum.

in newspapers, though some of the averages are lower, particularly those for website homepages and email fundraising appeals.

As for differences among communication forums within the sample, there is substantial variation in language complexity, and – consistent with *H1* – this variation appears to correspond to the interest level of the audience. The highest language complexity is seen in press releases and congressional testimony, with respective means of 15.2 and 15.1.[11] Communications aimed at the general public have lower average grade levels, though there is significant variation across forums, reflecting groups' awareness of different audiences. Message tailoring to different audiences is apparent both in websites and emails. This can be seen not only in language complexity, but also in the volume of information that groups provide. On groups' homepages, the average word count (422) and average grade level (10.5) are low relative to web pages 2 and 3, reflecting the fact that many groups use their homepages as 'electronic menus', providing readers with guides to website content rather than serving as major sources of content.[12] This finding reflects a commonly accepted best practice for website design – i.e. breaking up content into 'easily digestible chunks' of text, such as short paragraphs and bulleted lists (Brinck *et al.* 2002). Moving beyond a group's homepage, however, the quantity and complexity of information increase. Individuals who click one or two times on different links are, ostensibly, motivated to learn about environmental issues, and groups appear to respond to this higher interest level by providing more information and presenting it in a more complex manner. Given that groups have a clear interest in promoting their policy positions, such information provision may be one-sided. However, groups often support their statements by providing links to external sources of information, including news stories, government documents, and peer-reviewed academic research (Merry 2010a). In this way, groups encourage readers to investigate their policy positions rather than to simply accept groups' claims.

This interpretation is consistent with evidence I gathered from interviews with environmental group representatives, many of whom recognised the importance of presenting information in multiple formats. Using an example of a report produced by the Intergovernmental Panel on Climate Change, a representative from Population Connection stated, '99.9% of people' cannot devote the time necessary to read this document in its entirety (M. Stevens, personal communication, 19 March 2007). Environmental groups thus work to identify the 'most important features' of longer reports and to convey those to the public – as in executive summaries. While tailoring messages to reflect peoples' time limitations, groups also make sure they provide *access* to more in-depth information, such as by citing sources (M. Stevens, personal communication, 19 March 2007). Similarly, a representative of National Environmental Trust noted that websites are designed to provide summary information in combination with 'click here' links to allow those with more interest to find out more (R. Vandermark, personal communication, 19 March 2007).

Groups' email communications often follow this format, with short summaries of issue-related information or updates, followed by links for individuals who want to learn more. The (relatively) low grade level of email action alerts and fundraising appeals is likely attributable to this type of formatting. Email newsletters, in contrast, tend to follow a more traditional model of presenting information in one document. Again, those with greater interest in a topic are most likely to read such communications, and groups respond by providing greater volume and complexity of information.

Role of group characteristics

To determine the influence of group characteristics on communication styles, I calculated the average scores for each group on all content analysis measures. I then evaluated the importance of two group characteristics – financial resources and membership status – in explaining variation in the content analysis measures. In order to measure financial resources, I use groups' total annual expenses as reported in their I-990 tax forms. More than other measures of financial resources (such as net assets or annual income), groups' expenses provide a good indication of the extensiveness of their activities (Swords 2006). Furthermore, total annual expenses are highly correlated with staff size (Pearson's $r = 0.96$, $p < 0.01$) and total annual revenue (Pearson's $r = 0.99$, $p < 0.01$). Consistent with *H2*, there appears to be no relationship between financial resources and language complexity.[13] Additionally, membership and non-membership groups do not vary substantially in their communication styles. The mean grade level for membership groups is 12.3, while the mean for non-membership groups is 13.0.[14]

Within specific communication forums, there are some minor differences between membership and non-membership organisations, as illustrated in Figure 2. In all but one forum (email fundraising appeals), non-membership groups communicate at a higher average grade level than membership groups. However, these differences are only statistically significant in three of the 10 forums: email alerts, website homepages, and print newsletters.[15] In part, these differences likely reflect the different audiences of interest group communications, with mass membership groups appealing to the general public – and using simpler language to ensure accessibility of content – more so than non-membership groups.[16] Ultimately, though, the communication styles of membership and non-membership groups are more similar than they are different, varying in the same manner across communication forums. Specifically, both types of organisations utilise simpler language with audiences for whom time and interest may be limited and more complex language with audiences presumed to have the motivation necessary to process detailed information.
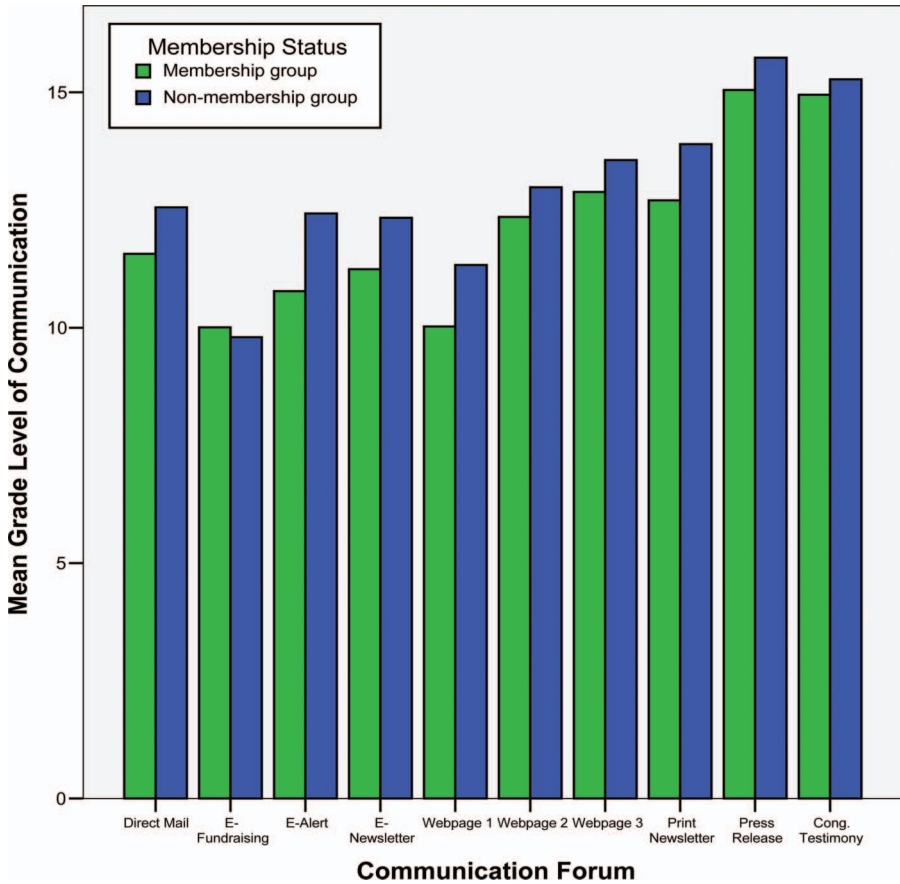
Figure 2.   Mean Flesch-Kincaid grade level separated by membership status and communication forum.

Case study of communications about climate change

To more directly assess the content of environmental group communications, I selected a set of 20 statements across all six communication forums in the study for an in-depth analysis. One purpose of this case study is to analyse how groups engage different audiences, given the multi-faceted nature of environmental issues. To what extent do groups define and explain the causes of policy problems? Do they discuss different policy alternatives, and what level of detail do they go into in justifying their preferred solutions? Do they provide 'simplistic' accounts, or do they delve into the complexities of environmental issues? A second purpose of this assessment is to determine the validity of grade level as a measure of the complexity of groups' communications.

The case study focuses on communications about climate change, which account for 90 of the 1125 statements. The sample was created by arranging

statements from the lowest to the highest grade levels. Then, via systematic sampling, 20 statements were selected representing a range of grade levels (from 5.6 to 20.4). The sample consists of seven web pages, four emails, three press releases, three direct mail pieces, one sample of congressional testimony, and two newsletters. These statements represent a diversity of groups, including 12 membership and six non-membership organisations.[17] The mean grade level of the selected statements is 12.8, which is close to the mean grade level of all the statements dealing with climate change (12.9). Therefore, the statements selected are likely representative of the broader population of statements about climate change.

The focus on climate change serves to ensure that any variation in the complexity of communications is not attributable to differences in the complexity of environmental issues. For instance, one might argue that certain environmental causes, such as 'saving the whales', are more straightforward than others, such as the environmental effects of genetically modified foods, and that these differences might be reflected in groups' communications. Further, climate change is a highly complex issue that could, ostensibly, be simplified. This complexity stems not just from the phenomenon's multiple causal factors and effects, but also from the numerous policies designed (or proposed) to deal with the problem, including investment in renewable energy and alternative fuels, carbon capture and geologic sequestration, and regulating carbon emissions from power plants. Some of the most popular proposals, such as a cap-and-trade system for regulating carbon dioxide emissions, are potentially difficult for a layperson to understand. So do groups gloss over or fully explain the various causal factors, including the science of climate change, as well as the policy solutions that have been proposed? The findings summarised below are separated into three sections: one for statements falling into the 'low' grade level range (from 5.6 to 9.2), one for statements falling into the 'medium' grade level range (from 10 to 12.5), and one for statements falling into the 'high' grade level range (from 15.6 to 20.4).

Low grade level statements

Statements with grade levels ranging from 5.6 to 9.2 were drawn from three communication forums: web pages (three statements), email (two statements), and direct mail (one statement). These statements are aimed at a general public audience, and all are relatively brief and simple. Many of the statements emphasise the severity of global warming, as in the following declaration from the World Wildlife Fund website: 'Ignoring global warming won't make it go away. Global warming is the single biggest threat to our environment today.' Similarly, the Sierra Club's website warns that 'unless we take steps now to curb global warming, our way of life, our planet, and our children are all in grave danger'. Two statements define the problem in terms of the opposition, i.e. oil companies seeking to stop government from curbing carbon dioxide emissions. For instance, an email fundraising appeal from the League of

Conservation Voters states, 'In the fight against global warming, we're up against the Big Oil companies, some of America's wealthiest and most powerful corporations. Big Oil is counting on its deep pockets to stop real solutions to global warming'.

While emphasising the severity of the problem, many low grade level statements also encourage political action. The World Wildlife Fund offers a list of 'simple actions' that 'you can do' to reduce greenhouse gas emissions: 'Choose clean energy. Drive a hybrid or fuel efficient car. Adjust your thermostat. Buy Energy Star rated appliances.' Likewise, the League of Conservation Voters asks email recipients for financial contributions to allow the organisation to fight 'Big Oil' in Washington, DC, stating, 'This is the year we can make real legislative change and set our country on a path toward a cleaner energy future. But it won't happen unless we have the resources we need to keep the momentum going – will you help?' The organisation, however, provides no detail about the kind of legislative change it is seeking, nor do the other statements in the low grade level category.

In fact, most low grade level statements are sparse on detail, whether about the causes or consequences of global warming, or about policy approaches. Rather than constituting attempts at manipulation, these communications may reflect groups' accommodation of readers who support the groups' aims, but have little time or motivation to process complex information. In other communications, all of the organisations represented within this sample communicate at higher grade levels. Furthermore, much of the simplicity of these statements can be attributed to the ways that websites and emails are frequently structured – as summaries, containing links to more detailed information. The Union of Concerned Scientists website, for example, contains 18 links to other web pages, such as 'Climate policy update – May 2007' and 'The IPCC: Who are they and why do their reports matter?' Similarly, the Sierra Club's web page contains five links, including 'More about why global warming is occurring' and 'Questions about global warming'. Thus, in other forums – and for more motivated audiences – these groups do provide a great deal of substantive information.

Medium grade level statements

Statements with grade levels ranging from 10 to 12.5 were drawn from five communication forums: web pages (one statement), email (one statement), press releases (two statements), direct mail (one statement), and print newsletters (one statement). Interestingly, most of these statements are similar to the low grade level statements in that they contain little explanation of how and why climate change is occurring, but rather simply declare that it is a threat. In a direct mail piece, for instance, the Environmental Defense Fund asserts, 'The warming of our planet by heat-trapping emissions is the most important environmental issue of our time.' These statements differ from the previous group in that they are generally more detailed and contain more

in-depth discussions of the policy approaches to global warming. For instance, the Environmental Defense Fund newsletter contains an explanation of the proposed cap-and-trade system for regulating carbon emissions. The statement describes how a similar system was implemented for regulating sulphur dioxide in the 1990 Clean Air Act Amendments:

> The cap-and-trade system . . . capped sulfur dioxide pollution at half its existing level – but let companies meet the cap any way they wanted. Suddenly it became profitable to find less expensive ways to reduce pollution. Some companies cut even more than the law required, trading with others who couldn't meet the goal as cheaply. (Krupp 2007)

While market-based incentives for pollution reduction can be complicated, the Environmental Defense Fund clearly seeks to make this policy approach comprehensible to the layperson. In short, the medium grade level statements are more complex than the low grade level statements. They are generally longer – with an average word count of 946, compared to 355 for low grade level statements – and contain more detail with respect to potential policies, yet they appear to be written in order to be accessible to the general public.

High grade level statements

Statements with grade levels ranging from 15.6 to 20.4, were drawn from all six communication forums: web pages (three statements), email (one statement), press releases (one statement), direct mail (one statement), congressional testimony (one statement), and print newsletters (one statement). Despite the diversity of forums, there are several characteristics that are common among these statements. First, these statements are typically longer, containing more information than low and medium grade level statements, with an average word count of 1258. Second, all contain policy-related and scientific jargon, suggesting that these statements are geared toward those with prior knowledge of the subject matter. For instance, a Center for Clean Air Policy web page mentions the 'Kyoto Protocol', 'technology-based strategies', and 'cap-and-trade programs', without providing any further explanation of what these terms mean. Similarly, a press release by the Pew Center on Global Climate Change mentions 'sectoral agreements', 'emissions crediting', and 'sequestration', among other policy-related terms. Additionally, six out of the eight statements focus on policy approaches to solving climate change. On its website, Physicians for Social Responsibility explains a Supreme Court decision (*Massachusetts v. EPA*), in which the Court ruled that carbon dioxide and other greenhouse gases constitute air pollutants under the Clean Air Act. Similarly, the group INFORM explains, on its website, a proposal to include quantification of greenhouse gas emissions in environmental impact statements.

As for the two statements that focus on aspects of the global warming problem, both address the negative consequences of climate change. In its

email newsletter, SeaWeb explains research findings which suggest that decreasing Arctic ice cover will initially increase polar bears' hunting success, but will eventually contribute to higher polar bear mortality. The reason for this, SeaWeb explains, is that the breeding habitat for the ringed seal will decrease, exposing seal pups to predation by polar bears. However, because polar bears will be preying on younger seals – with lower caloric density – the bears will be leaner heading into the fall and winter seasons, hence the eventual rise in polar bear mortality. Similarly, congressional testimony by a representative from Trout Unlimited explains the various potential impacts of climate change on trout and salmon populations. For instance, one consequence of warmer stream flows is that aquatic insects emerge earlier each year, and female insects are smaller in size and produce fewer eggs. In turn, there may be cascading negative effects for fish populations that depend upon these insects. Both these statements provide detailed and complex explanations that are not inaccessible, but are probably not very interesting to a layperson. Rather, they are geared toward those with specific interests – whether personal or professional – in the effects of global warming on ecosystems.

Summary of case study findings

In summary, this case study indicates that the Flesch-Kincaid Grade Level does, indeed, correspond to the complexity of the content of communications; statements with low grade levels are fairly basic, while those with high grade levels are more difficult to understand. Statements with higher grade levels also tend to contain more policy-related explanations. So, rather than simply asking for a financial contribution and assuring the reader that the group will use it well – as in low grade level statements – medium and high grade level statements explain how various policy approaches work to curb greenhouse gas emissions. Interestingly, across all communications, there is one chief similarity: not one statement in the sample contains a description of the factors that contribute to global warming. While many groups do provide such descriptions on their websites, these explanations are not 'front and centre'; they are not showing up in the first few clicks on a website, and they are not the subjects of emails or direct mail pieces. Apparently, the conversation – at least among the groups in this study – has moved beyond seeking to determine whether and why climate change is occurring. Attention now appears to be increasingly directed to the emerging negative implications of the problem as well as policy approaches to solving it.

Conclusions

The findings of this study suggest that criticisms of environmental groups – and interest groups, more generally – are overstated. As the evidence consistent with *H1* indicates, groups seek to educate various audiences about the

complexities of public policy issues, and there is an underappreciated logic underlying such efforts: the more groups can demonstrate that their supporters are knowledgeable about specific policy issues, the stronger their case that they represent highly salient issue positions, which politicians would do well to take heed. For audiences with limited time and motivation, groups provide simpler explanations, but typically also provide links or other means for individuals to investigate issues in greater depth. The finding that groups vary their communication styles in this manner is significant given the fact that all but six of the 1125 texts in the sample were written during the presidential administration of George W. Bush. One might expect to see heavy reliance on simplistic, dramatic rhetoric by environmental groups during this time period – as a means of mobilising supporters in the face of an administration perceived to be hostile to environmental concerns (see Vig 2010). The finding of substantial variation in groups' rhetoric – in contrast to wholesale simplification – thus provides strong evidence against the critique of interest groups. Furthermore, evidence consistent with *H2* indicates that group characteristics play a minimal role in explaining groups' communications. While membership groups communicate at a slightly lower average grade level than non-membership groups, both types of organisations vary their language complexity in the same manner across communication forums – namely, in response to audience interest levels. Though specific to groups in the United States, these findings should translate other political systems with active interest group populations. In fact, many of the groups in the study – including Greenpeace, Friends of the Earth, Oceana, and World Wildlife Fund – operate internationally and likely employ similar communication strategies in seeking to educate and activate particular constituencies. For these organisations, the practice of tailoring messages to specific audiences is likely to be especially important, given the differing political and cultural contexts of their campaigns.

Such message tailoring is also likely to be crucial for highly complex issues – such as climate change – for which in-depth investigation of the underlying science is of interest to a relatively small subset of the population. Namely, building broad-based support for climate change policy requires groups to provide both detailed explanations (for those who are highly interested) and simpler, more comprehensible explanations (for individuals who desire a basic understanding of the policy issue). Finally, message tailoring is likely to become increasingly crucial as Internet-based communication expands. While some online forums demand simplicity – for instance, the social networking site Twitter limits users' comments to 140 characters – other forums, such as blogs, emphasise information provision and encourage readers to investigate policy issues (see Blood 2002). In short, the growing variety and prevalence of web-based communication media will only increase the incentives groups face to vary their rhetoric across forums. It is through such variation that groups may seek to maximise their political impact by reaching the widest possible range of audiences.

Notes

1. I conducted interviews with 10 environmental group representatives in Washington, DC, in March of 2007. These interviews are described in further detail below.
2. The following directories were used to develop the sample: National Wildlife Federation, Associations Unlimited, Project Vote Smart, The National Environmental Directory, Envirolink, and Inter-Environment.
3. For most groups, I-990 financial data were collected for the years 2004 or 2005.
4. Groups were classified as membership organisations if their websites included the statements 'join' or 'become a member' in reference to requests for financial contributions. The Associations Unlimited directory was used to verify groups' membership status.
5. Given the possibility that the topic of communication might influence groups' communication styles, each statement was coded into one of 14 issue categories. A comparison of statements across issue areas revealed that the topic of communication is unrelated to groups' communication styles. See Table A1.
6. Some websites did not contain a link to a third page from the second. For these websites, only two pages were coded.
7. The group representatives were from the following organisations: American Rivers, Campaign for America's Wilderness, Defenders of Wildlife, Environmental Law Institute, Environmental Working Group, National Environmental Trust, National Wildlife Refuge Association, Oceana, Population Connection, and The Wilderness Society.
8. The formula for the Flesch-Kincaid Grade Level is as follows: $39*(words/sentences) + 11.8*(syllables/words) - 15.59$. The numbers in this formula serve to translate the raw score to a corresponding US grade level.
9. Table A3 provides the approximate ages corresponding to each grade level in the United States.
10. In addition, Table A2 provides the mean and standard deviation of grade levels across communication forums.
11. A One Way ANOVA confirmed that the mean grade levels in press releases and congressional testimony are significantly higher than the mean grade levels in all other forums ($p < 0.01$).
12. The average word count for web page 2 is 610, and the average grade level is 12.6. The average word count for web page 3 is 745, and the average grade level is 13.1. A One Way ANOVA confirmed that the mean grade level of web page 1 is significantly lower than the means of web pages 2 and 3 ($p < 0.01$), though the difference in means between web pages 2 and web page 3 is not significant.
13. The Spearman's rho correlation between total expenses and mean grade level is -0.09 ($p = 0.21$).
14. While statistically significant ($p < 0.01$), the difference in means between membership and non-membership groups is not substantively significant.
15. Two sample t-tests were conducted to compare the mean differences between membership and non-membership groups. The significance levels are as follows: email alerts ($p = 0.05$), website homepages ($p < 0.01$), and print newsletters ($p < 0.01$).
16. Additionally, the finding with respect to email alerts is based on a small sample size: seven alerts from non-membership groups and 51 from membership groups.
17. The groups are as follows: World Wildlife Fund, Union of Concerned Scientists, Sierra Club, Physicians for Social Responsibility (two statements in sample), League of Conservation Voters, US Public Interest Research Group, Natural Resources Defense Council, Friends of the Earth, Environmental Defense Fund (two statements in sample), Rainforest Action Network, the Center for Biological Diversity, Trout Unlimited, the Center for Clean Air Policy, INFORM, SeaWeb, Pew Center on Global Climate Change, Climate Institute, and Conservation Fund.

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Appendix

For each statement, the major topic was placed into one of the above categories. Out of the 1125 statements, 796 address one or more specific, policy-related topics. The other 329 statements – mostly consisting of website homepages, emails, and direct mail pieces – include general information about the groups, but no specific issue content. A one-way ANOVA was conducted to compare mean grade levels across issues. Statements classified as 'general' had significantly lower grade levels than other statements in the sample ($p < 0.01$). There were no statistically significant differences across communications about specific issues.

Table A1. Mean grade level by issue.

Major topic (number of statements)	Mean grade level
Agriculture (37)	13.0
Air quality (14)	13.0
Climate change (90)	12.9
Energy (89)	13.3
Forests (77)	13.3
Land and wilderness conservation (90)	13.2
Marine conservation (55)	12.7
Population (14)	13.8
Toxic pollution (55)	13.0
Water quality (52)	13.8
Wildlife (102)	12.5
General (329)	10.9
Multiple (32)	12.9
Other (89)	3.6

Table A2. Summary statistics for grade levels across communication forums.

Communication forum	Mean grade level	Standard deviation
Direct mail	11.8	2.1
Email fundraising	10.0	1.5
Email alert	11.0	2.0
Email newsletter	11.6	2.4
Web page 1	10.5	2.8
Web page 2	12.6	2.7
Web page 3	13.1	2.4
Print newsletter	12.8	1.7
Press release	15.2	1.9
Congressional testimony	15.1	1.6

Table A3. Flesch-Kincaid grade levels and corresponding ages of students.

Grade level	Approximate age
4	9–10
5	10–11
6	11–12
7	12–13
8	13–14
9	14–15
10	15–16
11	16–17
12	17–18
Over 12	Over 18 (college age)