

The Waters of Casablanca:
Political Misinformation (and Knowledge and Ignorance)

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In an oft-quoted scene from the movie *Casablanca*, the character Rick claims, when asked by his frienemy Captain Renault, to have come to Casablanca “for the waters.” When Renault responds, “The waters? What waters? We’re in the desert,” Rick shrugs, “I was misinformed.” Of course Rick was merely engaging in witty evasion, but suppose, for analogy’s sake, that he had actually had a condition that would have been improved by curative waters located elsewhere but worsened by the aridity of Casablanca. If he had merely known nothing of these possibilities and therefore gone nowhere, he would have incurred some opportunity cost, but if he had in fact come to Casablanca for the waters, he would actually have been worsening his health, piling real on top of opportunity cost.

This points to a largely unobserved distinction, and a correspondingly neglected variable, in the literature on mass politics. The literature gives lots of well-deserved attention to political knowledge and kindred variables like political “sophistication,” “awareness,” and “expertise” (as in, e.g., Converse 1964, Luskin, 1987, Zaller 1991, Delli Carpini and Keeter 1996). What citizens want and do in the political arena depends on what they know—both how much, and specifically what. But the complement of knowledge is not simply ignorance. With a small but growing number of recent exceptions (notably including Berinsky 2009, Kuklinski et al. 2000, Nyhan 2010, Nyhan and Reifler 2010, Bullock 2007, Kull, Ramsay and Lewis 2003, Shani 2006, etc.), the literature has tended to overlook a third possibility: *misinformation*. Some—typically most—of those not knowing a given fact are simply *ignorant*, possessed of no relevant cognition. Others, however—sometimes numerous—are *misinformed*, possessed of erroneous cognition. To take his lines at face value, Rick did not simply know nothing about Casablanca or the location of curative waters; he believed Casablanca to have them. He was misinformed.

Anecdotally (in the sense of being based on only scattered survey items, however numerous the respondents on each), political misinformation would seem to abound. To choose just a few prominent and potentially consequential examples, many Americans are reported to have believed that the Iraq War uncovered caches of Iraqi weapons of mass destruction (Kull, Ramsay, and Lewis 2003), that Iraq was involved in the 9/11 attacks (Kull, Ramsay, and Lewis 2003), that the 2010 health care legislation involved “death panels” (Pew Research Center 2009, Nyhan 2010), and that income inequality in the U.S. has not been growing (Bartels 2005).

Controlling for values, interests, and other dispositions, the misinformed and the ignorant can be expected to behave differently, in pursuit of different preferences. In ways, the misinformed may actually resemble the knowledgeable more than the ignorant. Both misinformation and knowledge provide the cognitive anchoring that makes attitudes more stable. Both also help motivate voting and other forms of participation. In these ways, being misinformed may arguably be “better” than being ignorant.

In the critically important way suggested by the *Casablanca* excerpt, however, it may be worse. For both the individual citizen and the democratic system, the greatest single benefit of political knowledge may lie in enhancing the “authenticity” of policy and electoral preferences. To what extent do people have the same opinions and cast the same votes as they would with fuller and truer information? Assuming at least “procedural” rationality, knowing relevant facts makes it easier to approach one’s “full information” preferences—those best serving one’s own values and interests. Both ignorance and misinformation, on the other hand, can be expected to leave many people some appreciable distance from their full-information preferences, through either an absence of direction in the one case or misdirection in the other.

Which can be expected to lead people further astray is unclear and almost certainly contingent. It depends on who consumes what media; on who processes what information how; on the conditioning roles of prior cognition, political dispositions, and personality traits, among other things; and on how these conditioning variables may be correlated with values and interests. Misinformation may sometimes be accepted precisely because it comports with one's values and interests. It may suppress nuance and heighten fervor, without necessarily luring people away from their full-information preferences. People may reach the right conclusions for the wrong reasons. If Casablanca had been good for Rick's health for reasons other than its aridity, he might have made a good choice despite his mistaken belief in its having waters. Similarly, someone who "knew" only of the 2010 health care legislation that it featured "death panels" might well still have opposed it if he or she knew all (and only) the facts. Occasionally, being misinformed may even make it *easier* to reach full-information preferences.

For democracy, the key questions are aggregate, of *net error*. Across both individuals and pieces of misinformation, does the misinformation about Policy *X* lead people toward or away from their full information preferences about Policy *X*? If away, does it lead them further away than mere ignorance? The answer probably varies with the policy and the circumstances, but it does seem fair to suspect that misinformation often induces significant net error—and that it often induces more of it than does mere ignorance. People knowing next to nothing about the health care debate may nonetheless opine about the legislation, and those opinions may differ, in either direction, from their full-information attitudes. But the errors, under most conditions, seem likely to be *relatively* symmetric and countervailing. Some who "should" favor the legislation will oppose it, while some who "should" oppose it will favor it.¹ By contrast, the erroneous

belief that the legislation involves “death panels” seems likelier to work preponderantly in one direction, leading many more of those who should favor it to oppose it than of those who should oppose it to favor it. In short, misinformation is likely to be a problem, if a more complex and contingent one than commonly thought.

This paper examines the nature, measurement, and correlates of political misinformation. We begin by considering some definitional issues and ambiguities. Then we take a quick glance at the anecdotal evidence suggesting widespread misinformation, finding reason to suspect it may not always be quite as pervasive as reported.

On Misinformation

We begin with some further conceptual delineation and ground-clearing.

Message versus Mind

Like “information,” “misinformation” can refer to either cognition (residing in minds) or communication (residing in messages). A message may contain misinformation. An individual may hold misinformation. But these are different phenomena. Rick, on his account, was told there were curative waters in Casablanca (a message containing misinformation) and chose to believe it (thus coming to hold that misinformation). The misinformation in communication may be one source of the misinformation in cognition. But they are not the same thing, and the latter is what we are focusing on here.

Denial versus Invention

Misinformation may be merely reactive, a matter of *denial*—of explicitly rejecting uncongenial facts (as those denying that the earth’s climate is changing, at least not beyond the normal fluctu-

ations that have occurred from time immemorial, have been doing). Or it may be creative, a matter of *invention*—of affirmatively adopting congenial fictions (as those believing that the 2010 health care legislation involves “death panels” have done). Both denial and invention are forever tempting. In varying degree, we all strain toward consistency, while also trying to minimize effort (less “cognitive misers” than “cognitive slackers”). It may be easier to deny uncongenial facts than to interpret them away or argue around them (by marshaling other, more congenial facts or fictions) and is often easier to invent congenial fictions than to research the facts (which may or may not be congenial). And of course particular denials and inventions may be especially hard to resist when there are politicians and media sources energetically promoting them.

The Stuff of Misinformation (and Knowledge): Empirical Propositions

A given piece of misinformation—or knowledge—is a cognitive representation of an *empirical proposition*.

Descriptive versus Causal

Just as in social science—of which both political cognition and political communication (the phenomena, not the fields of study) are, in part, barefoot versions—such propositions may be either *descriptive* (verbal characterizations of what are essentially means, variances, or correlations) or *causal* (verbal characterizations of one variable’s effect on another: how much, on average, and holding everything else constant, a unit increase in the one can be expected, under given conditions, to increase or decrease the other). A belief that most illegal immigrants have a criminal record or, on the other side, that most countries automatically award citizenship to anyone born within their borders is descriptive (and its holder misinformed). A belief that building a border fence can never reduce illegal border crossings is causal (and its holder also misinformed;

see Israel).

Partial Truth

The very simplest empirical propositions, composed of a single assertion linking two mono-faceted elements, may be regarded as entirely true or entirely false. But more complex propositions, involving multiple assertions linking multiple, multi-faceted elements, may be true (and, complementarily, false) to varying degrees—as a function of the proportion of the constituent assertions that are true versus false, perhaps weighted by their centrality to the overall proposition. That Barack Obama is the President of the United States is true. That he is the Vice-President of the United States is false. That he is the President of Rwanda is partially true: He is the president of a country, but the country is not Rwanda. It is only very slightly true, because, as most of us should judge, the inaccurate identity of the country is more central to this assertion than is the accurate identity of the office. How untrue does a partially true piece of information have to be before we label its cognitive representation misinformation? It is admittedly a judgment call, although the issue may be finessed by asking closed-ended questions whose response alternatives are either wholly true or wholly false by construction.

Uncertain Truth

For its cognitive representation to count as knowledge, a proposition must be true. For its cognitive representation to count as misinformation, it must be false. But some propositions are debatable, of uncertain—as distinct from partial—truth. A proposition may be either wholly true or wholly false, without our knowing which. That the State of Texas allows the death penalty for certain classes of homicide is a fact. To believe otherwise is to be misinformed. That the death penalty deters (or fails to deter) homicide, however, is debatable. This is what Luskin, Fishkin,

and Jowell (2002) term an “empirical premise,” but “debatable proposition” captures the idea more squarely. One may either accept or reject a debatable proposition without being, on that count, either knowledgeable or misinformed. Causal propositions, as this example suggests, are especially likely to be debatable.

So how undebatable does a proposition have to be before we count it as fact, and someone who denies it or believes something inconsistent with it as misinformed? This question is less easily finessed by mere question design. Some of the most important empirical propositions are almost but not quite undebatable—or undebatable but nonetheless debated. We shall very likely wish to ask about them but, if we do so, must consider how to interpret the results. Are they expressions of opinion or of knowledge/misinformation?

To take an important example, is the occurrence of global climate change a fact? That greenhouse gas production has been contributing to it? Neither proposition is quite as indisputable as the existence of the death penalty in Texas. Both are accepted as fact by nearly but not quite 100% of the relevant scientific community. To require 100% would be to misunderstand the nature of science and to ignore important scientific knowledge. But where exactly do we draw the line? Surely 60, even 70% is too low. But what about 80%? 90%? 95%? One could survey relevant experts to estimate what the percentage is, but since any numerical threshold is necessarily arbitrary, perhaps the best a scholar do is to be clear about what is being taken as factual to leave it to readers to accept or reject the results as they see fit. In the case of climate change, we see the scientific consensus overwhelming enough (surely well north of 95%) to regard its occurrence and its being at least partly caused by greenhouse gas production as matters of fact and those in denial as misinformed.

Political Entanglements

Obviously, making this sort of judgment risks embroiling us who study misinformation in the very debates motivating and probably affected by it. But what is the alternative? Not everything that is undebatable is undebated. In the 1950s, the debate over carcinogenicity of cigarettes stood more or less where the climate change debate does now, except that there were rather more dissenting studies sponsored by the tobacco industry. Should we have refrained then from regarding those denying that cigarette smoking (probabilistically) causes cancer as misinformed? We think not. People on one or both sides of many debates will insist on denying uncongenial facts or maintaining congenial fictions. Are we to ignore some of the most widespread and potentially most consequential pieces of misinformation simply because some people insist on believing them?

The problem is compounded to the extent that the dissemination and acceptance of misinformation are unevenly distributed, more prevalent on one side than the other. It is politically entangling enough to point equally to misinformation on both sides, since each may regard only the other's misinformation as wrong. It is still more politically entangling to point to misinformation preponderantly on one side, when that is where it preponderates. Doing so may seem like taking sides but is not. A prevalence of misinformed bad arguments does not imply the unavailability of better ones or the inauthenticity of the preference motivating the misinformation. There were good reasons, depending on one's values and interests, for opposing the 2010 health care legislation. They just did not include its establishing "death panels." But if one side is producing and consuming distinctly more misinformation than the other, that is not something we can ignore if we wish to understand the dynamics of the debate.

Where Does Misinformation Come from? Sources and Processes

How is misinformation transmitted and absorbed? A great deal of misinformation clearly comes from the media or other people. Some may be implicit and relatively nonpartisan. The saturation of local news by stories about crime, especially violent crime, coupled with the profusion of crime dramas on TV and in the cinema, may leave many people thinking the rates of crime, especially violent crime, much higher than they are. But much mediated misinformation appears to have partisan origins or a sharp partisan edge. The misrepresentations in Fox News and from Rush Limbaugh are hardly random (as evidenced by Fox viewers' beliefs; see Kull et al. 2003, Kull 2004, Berinsky 2009). Those from the evening op-ed shows on MSNBC, if perhaps somewhat less pervasive, are no less tilted.

Other misinformation is homespun, the product of largely exogenous, consistency-driven, stored inferences. People fill gaps in their impressions of the political landscape—and do so from hedonic and consistency-maximizing as well as error-minimizing impulses. Many such inferences are idiosyncratic, but others may be widely shared. Some conservatives/Republicans may have believed Barack Obama to be a Muslim, based on his name, his complexion, his father's background, or perhaps even some of his policy views, even without having encountered that assertion from acquaintances or media sources.

As this sketch of sources suggests, several psychological processes may be involved. The most obvious are *affective consistency*, leading to *motivated misinformation*, consistent with policy, partisan, or ideological preferences; *cognitive consistency*, or *stereotypic processing*, leading to misinformation consistent with prevailing patterns (even when the case at hand is actually an exception); and *default credulousness*, referring to the tendency to believe what we

hear, absent explicit contradiction or grounds for skepticism. The first, a species of wishful thinking, may lead some Democrats/Republicans to think unemployment or inflation increased under a Republican/Democratic administration, even when it didn't. The second may lead some people of whatever partisan affiliation to think that the deficit increased under a Democratic administration or that military spending increased under a Republican one, even when it didn't. And the third may lead some people, again regardless of partisanship, to accept un- or at least insufficiently contradicted assertions, for example that Michael Dukakis, as Governor of Massachusetts, was heavily responsible for the pollution of Boston Harbor. These processes are not, of course, mutually exclusive. A given piece of misinformation may have roots in none, any one, any two, or all three.

Topics of Misinformation (and Knowledge and Ignorance)

The *topics* of political cognition and non-cognition also vary. Without aiming for exhaustiveness, we observe that survey knowledge items commonly gauge the information held or not held about (a) the *identities* of political figures (what offices or positions they hold), (b) their *biographies* (what religion they follow, whether and how they served in the military, etc.), (c) *policy-relevant facts* (causal or descriptive propositions that may alter the subjective utilities associated with given policy alternatives), including those concerning *existing statutes* (what they do or do not already allow or require), (d) *policy or ideological locations* (of political figures, parties, or other organizations), (e) *party control* (as of Houses of Congress), (f) *objective performance* (under incumbent politicians or parties with respect to such quantifiable indicators as inflation, unemployment, or casualties), and (g) *government structures and constitutional provisions* (e.g., the number of seats and length of terms in the U.S. Senate or the contents of the Bill

of Rights).

Some of these categories should see more misinformation than others. The misinformation-richer topics figure to be those where relevant stereotypes are particularly common or the urge to maintain affective consistency particularly strong. It is hard to see that the identities of political figures, the details of government structures or constitutional provisions, or the party control of given branches of government should excite much stereotyped or motivated misinformation. Policy locations may see a bit more. Individual Democrats/Republicans may be stereotyped as being to the left/right of where they may actually be (though in these days of increasingly homogeneous parties, there may not be much room for error). Not many Democrats are comforted by seeing Republicans as being anything but right-of-center, nor many Republicans comforted by seeing Democrats as being anything but left-of-center, although extremists on either side may occasionally see less extreme parties or politicians on their own side as being in the center or even on the other side. But the topics likely to exhibit the most misinformation biographies, policy-relevant facts, and objective performance, the first and third because they elicit a high level of stereotyping, and all three because they spark affective consistency-seeking.

Information States, Response Types, and Response Production Mechanisms

We never actually *see* the *information states* of knowledge (*K*), ignorance (*I*), or misinformation (*M*), all matters of stored cognition, present or absent. All we actually see are correct (*c*), incorrect (*i*), or “don’t know” (*d*) *responses* to political knowledge questions. The underlying information state can only be inferred. Taken at face value, a correct response suggests knowledge, a DK response ignorance, and an incorrect response misinformation. But the first may sometimes represent lucky guessing or correct inference, the second sometimes hide

knowledge or misinformation, and the third sometimes represent unlucky guessing or incorrect inference. A given information state is transformed into a given response type by a *response producing mechanism*. For knowledge (K) or misinformation (M), the possibilities are *reporting* (ρ), *withholding* (ω), and *misrepresentation* (μ). For ignorance (I), they are *reporting* (ρ), *blind guessing* (β), and *fresh (on-the-spot) inference* (i).

Conceptually, this last is worth distinguishing both from blind guessing, on the one hand, and from reporting, of either knowledge or misinformation, on the other. Neither blind guessing nor fresh inference represents any pre-existing cognition, whether correct or incorrect, of the information being asked about. On the contrary, both are ways in which respondents who neither *know* the correct answer nor *believe* an incorrect one may nonetheless produce the one or the other. The difference lies in the other cognitive resources and effort brought to bear. Blind guessing is a matter of mentally flipping a (multi-sided) coin, fresh inference a matter of reasoning, more or less soundly, from *other things* one *does* know or mistakenly believe.

So correct inference is not the same reporting knowledge, nor incorrect inference the same as reporting misinformation. If asked for the party affiliation of Senator X from Massachusetts, a respondent who knows that Massachusetts is a heavily Democratic state may *infer* that Senator X is Democrat. The inference is correct but does not represent knowledge if X is John Kerry and is incorrect but does not represent misinformation if X is Scott Brown. What the respondent *knows* is simply that Massachusetts is a heavily Democratic state. A correct response is only knowledge, and an incorrect one only misinformation, when it expresses pre-existing cognition about the object of the question. That pre-existing cognition may stem from *prior*, previously stored inference, but *fresh* inference, occasioned by the question, is just inference.

We highlight these distinctions because we tend to forget just how reactive the measurement of knowledge, especially by closed-ended questions, tends to be. Respondents find the impulse to guess or infer the answer hard to resist. It is important to keep in mind that not every response that looks like knowledge—or misinformation—necessarily is. Some correct and incorrect responses are created by the interview, rather than reflecting anything known or mistakenly believed beforehand, and not all of that is mere blind guessing. Some is “educated” or “miseducated” guessing. Operationally, however, we bow to practical constraints. The survey items at hand do not provide a way of separating fresh inference (i) from blind guessing (β). In our analyses, therefore, we regretfully combine them as undifferentiated *guessing* (γ).

In sum, then, the knowledgeable may simply give the answer (ρ , mapping K onto c), profess not to know it (ω , mapping K onto d), or say something else (μ , mapping K onto i). The misinformed may say what they (erroneously) believe (ρ , mapping M onto i), say they don’t know (ω , mapping M onto d), or give the right answer despite disbelieving it (μ , mapping M onto c). The ignorant may simply admit they don’t know (ρ , mapping I onto d) or take a stab at answering anyway (γ (β or i), mapping I onto either c or i , depending on whether the stab is correct or incorrect). Thus any of the three responses could conceivably be produced by any of the three information states, which makes telling information states from observed responses somewhat dicey. Table 1 summarizes the possible pairings of information state and response type and the response producing mechanisms associated with each. Fortunately, some of these pairings figure to be extremely rare. More about that anon.

Question Format

For any given information state, the conditional probabilities with which the possible re-

sponse-producing mechanisms kick in depends partly on the question's format. So, therefore, does the frequency distribution of responses. Withholding appears to be much rarer, and blind guessing and fresh inference much commoner, on closed-ended items (Luskin and Bullock 2005, 2011; Luskin and Sood 2012), where the provision of response categories makes blind guessing effortless, and the information in the response categories facilitates inference.² Both correct and incorrect answers are therefore more numerous, and DK responses less numerous.³

Another difference lies in the possibility of eliciting *partial knowledge*, resting in turn on a subtle difference in what is being asked. A closed ended question asks only which of a menu of predefined statements, constructed so as to be either true (in one case) or false (in all others), is true. An open-ended question asks for whatever the respondent can say about some political object (typically, some public figure), some but not all of which may be true (see Luskin and Bullock 2011). Someone who answers an open-ended question asking who David Cameron is by describing him as the "president of England" is neither entirely misinformed nor entirely knowledgeable. He or she knows that David Cameron is the chief executive of a country including England but does not know that the country is the United Kingdom, nor that the chief executive there is the prime minister. Responses of this sort may be less common than some recent accounts (Gibson and Caldeira 2009, Krosnick et al. 2008) have suggested but do exist and certainly challenge any sorting in terms of knowledge, ignorance, or misinformation.

For present purposes, the most important difference lies precisely in this focus on the identification of prominent political figures, which makes open-ended items unlikely to show much misinformation. A mistaken belief that David Cameron is the prime minister of Ireland fits no stereotype and has no consequence for policy or electoral preferences. It is therefore like-

ly to be rare. There is of course nothing to prevent open-ended items from asking about policy relevant facts or objective performance, on which there would likely be much more misinformation to be found. But the available ones do not.

Misinformation about Misinformation?

We have all seen media reports of media-sponsored surveys suggesting that large proportions of the American public believe that Iraq was involved in the 9/11 attacks, that Barack Obama is a Muslim, and the like. These are sensational (appalling) results—which may be the point. The media are interested in eye-catching headlines. But a closer look at the survey items underlying these headlines suggests that they may be overstating the frequency of misinformation.

Table **xx** describes 43 closed-ended media “misinformation items” and key features of their design. Thirty-seven are policy-relevant (4 on health care reform, 8 on Iraq’s involvement in the 9/11 attacks, 4 on its possession of weapons of mass destruction, 8 on global climate change, 2 on TARP, and 4 on the number of U.S. military fatalities in the Iraq war, 4 on the current U.S. unemployment rate, and 3 on the current value of the Dow-Jones Industrial Average), and the remaining 6 biographical (4 on Barack Obama’s citizenship and 2 on his religion). They come from surveys conducted by CBS News/New York Times (2), ABC News (with various partners, often the Washington Post) (7), Opinion Research Corporation (1), Abt SRBI (1), the Pew Center for the People and the Press (15), Princeton Survey Research Associates (12), the Gallup Organization (2), and NBC News/Wall Street Journal (3).

One design feature that may promote the appearance of misinformation is the general neglect of any explicit DK option. Only 6 of the 42, all asked by Pew, include one. Guessing is

generally rampant on closed-ended knowledge items, but the failure to encourage DKs makes it still more rampant (Luskin and Bullock 2011). Some of these guesses will be correct, masquerading as knowledge; others incorrect, masquerading as misinformation. When the item is binary (true-false, for example) the correct and incorrect guesses should be roughly equal in number. When it is multi-category, the incorrect guesses should be decidedly more numerous (by a factor of $(R - 1):1$, where R is the number of response categories). Thus taking correct and incorrect responses at face value (as media accounts invariably do), as representing knowledge and misinformation, respectively, overstates the extent of both knowledge and misinformation (and understates the extent of ignorance), but overstates misinformation at least as much and often more than it does knowledge.

Another inflationary design feature is the general phrasing of these items as matters of probability or opinion, rather than fact. Thirty-two of the 43 begin with phrases like “do you think,” “to the best of your knowledge,” “as far as you know,” “do you personally believe,” or “based on what you have heard”—wording that explicitly invites respondents who *know they don't know* the answer to choose what they see as most *probable*, based on assertions (still coded only as assertions) by trusted sources, on fresh inferences from *side* knowledge or misinformation, or on what they would most *like* to believe. Thus many Republicans who knew that they did not know the actual truth of the death panel allegation may well have responded “yes” to the question, “*do you think* [emphasis ours] the 2010 health care legislation involves death panels?” thinking either that Sarah Palin or others echoing her original allegation were probably right or considering, with grim satisfaction, that “death panels” would be just the sort of thing a Democratic congress’s health care legislation would likely include. None of this is misinformation.

Another possible misimpression concerns the ideological color of what misinformation exists. On the whole, the items are clearly designed to detect misinformation congenial to and thus likeliest to be held by Republicans/conservatives. On 23 of the 42 items, the correct answers is congenial to Democrats/liberals. On the remaining 19, it is congenial to neither side. On none is it congenial to Republicans/conservatives. Similarly, all 42 items have at least one incorrect response option congenial to Republicans/conservatives, whereas only 19 have at least one congenial to Democrats/liberals. On average, 1.29 incorrect response options per item are congenial to Republicans/conservatives but only 0.55 congenial to Democrats/liberals. The resulting headlines mostly concern misinformation held by the right, but it could hardly be otherwise, given the items being asked. The selection and construction of items could be biased, the product of blindered questionnaire writers aware only of misinformation on the right, or, to the extent that misinformation *is* more common on the right, could simply be “hunting where the ducks are.”

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NOTES

¹Empirically, the results of simulations like those of Delli Carpini and Keeter (1996) or Althaus (xxxx) seem to suggest some frequent net effect, but these analyses bundle ignorance with misinformation.

²These studies, too, bundle ignorance with misinformation.

³The guessing and inference can be reduced—but hardly eradicated—by an explicit DK option and a DK-encouraging preamble (Luskin and Bullock 2011).