When Patients Question Vaccines: Considering Vaccine Communication through a Material Rhetorical Approach

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When Patients Question Vaccines: Considering Vaccine Communication through a Material Rhetorical Approach

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Vaccinations are a notoriously difficult topic to discuss with patients, and efforts to persuade those who are most hesitant often fail. In this persuasion brief, common vaccination concerns and skepticisms are reexamined through the perspectives offered by rhetorical studies. This analysis demonstrates why current counter-arguments to vaccine skepticisms often fall short. As an alternative, this article encourages practitioners to consider how the material qualities of vaccinations contribute to their instability and make them difficult for patients to accept. This perspective suggests relationship-building and coalition-building as routes for improving doctor-patient communication about vaccines.

Keywor ds: vaccines/vaccination, communication, material rhetoric

Vaccine controversy, refusal, and skepticism are difficult, wide-reaching public problems. Although the evidence is clear—vaccines do not cause autism, they are effective at preventing many of childhood's most serious diseases, and they are necessary to protect the most vulnerable members of a community—many remain unconvinced by the science. So, what should be done when parents leverage persistent claims that vaccines are unsafe, ineffective, or no longer necessary, despite scientific evidence to the contrary?

It's a question that doctors, public health officials, and other health care providers often ask and have sought to address in a variety of ways. As the historian James Colgrove (2006) has pointed out, responses to vaccine hesitancy historically have taken one of two types of approaches: persuasive or regulatory.

Persuasive tactics have largely included communications strategies like sharing personal stories or even public communications campaigns that encourage vaccination. Some physicians begin vaccine conversations with parents to dispel worries about the "scary vaccines" (usually MMR) as early as possible in a child's life, while others recommend tactics like personal stories and anecdotes or reassuring parents that they, too, vaccinated their children. However, persuasive responses come with constraints: conversations take time, parents may seem reticent to change their minds, and physicians rightfully become frustrated by having the same conversations over and over about the same misconceptions. Consequently, regulatory measures have become more common. Many practices—primarily pediatrics practices—have resorted to "firing" their patients, a decision that is generally discouraged but that is nonetheless increasingly popular. Still others seek to influence decision-making at the policy level, trying to remove all non-medical exemptions for vaccines. Health care providers across specialties are, in many cases, constantly balancing these two options: persuasion or regulation?

As a scholar in rhetoric—or the study of language's persuasiveness in public discourse—I suggest that that many options in the persuasive realm of vaccine response remain to be fully examined through research, operationalized in practice, and understood for their effectiveness in improving communication, patient engagement with the healthcare system, and better health outcomes for communities.

Rhetoric allows us to understand how people are persuaded or seek to persuade others through communication. To study questions and problems in communication, like the problem of vaccine skepticism, rhetorical scholars can look at how people construct and describe the things they think and believe to understand what they find to be persuasive about that belief or position. Previous rhetorical research on vaccine concern, conducted by myself and other researchers in rhetorical studies, has already identified a wide range of sources of nuance in vaccine beliefs and decisions, including the role that locality plays in shaping vaccine beliefs (Lawrence, Hausman, & Dannenberg, 2014), how personal experiences and definitions of health

and illness shape vaccine practices (Lawrence, 2014), and how vaccine beliefs circulate (Hausman et al., 2014). Furthermore, additional rhetorical work on vaccination controversy has examined the persuasive efficacy of communications surrounding vaccine concern, including the role that hedging played in popularizing the 1998 Wakefield study that fraudulently posited a connection between the MMR vaccine and autism (Kolodziejski, 2014), the importance of communication by pharmaceutical companies in vaccine promotional materials (Malkowski, 2014), how websites engage skeptical audiences (Grant et al., 2015), and the role that vaccine beliefs across cultures impact major international health incidents (Scott et al., 2015).

In this persuasion brief, I'll introduce a few key terms from rhetorical studies and use them to conduct a *rhetorical analysis* of a popular pro-vaccine segment from the television show *Last Week Tonight with John Oliver*. Then, I further relate these arguments and the vaccine concerns they attempt to refute to real-world vaccine concerns that parents and physicians express, complicating the pro-vaccine perspective as it operates in the public sphere. I then discuss how a *material rhetorical* approach to vaccination reveals sources of instability about vaccines—as expressed in a small study of interviews with pro-vaccine doctors—to develop alternatives for responding to vaccine concerns. This approach demonstrates how language shapes the available decisions or outcomes possible in a persuasive context.

The objectives of this analysis are twofold: first, to illustrate how the tools of rhetoric can be used to enhance understanding of arguments and beliefs about vaccines; and second, to show how such an understanding of the persuasiveness of these arguments could open up and improve communication between patients and physicians, public health officials, and other healthcare professionals.

Rhetorical Concepts

In this section, I outline three key concepts from rhetorical studies and related theories that are particularly helpful for healthcare providers to consider when seeking to understand and develop approaches to counter vaccine skepticism: situations, exigencies, and things versus objects. I connect these three terms, outlining what rhetorical situations are, how the exigencies of rhetorical situations are formed, and how shared operations of things versus objects within those situations can help explain why communication about vaccination can be so contentious. This discussion will

draw upon literature from rhetorical studies before applying this lens to Oliver's vaccine segment as well as to primary data collected in a small interview study of physicians.

Rhetorical Situation

A rhetorical situation is a situation where something can be modified using communication. The rhetorician who first posited this idea, Lloyd Bitzer (1968), defined a rhetorical situation as a "complex of persons, events, objects, and relations" faced with an imperfection that calls for a change through discourse (p. 3). As situations that are other than they should be, rhetorical situations consist of several elements—the speaker(s), the audience, the constraints, and the exigence. The audience is the person/people the speaker is addressing. Constraints bound the types of communication and related tactics that are possible and likely to be effective in the situation. The exigence, which I'll turn to next, is the imperfection that should be modified.

Exigence

Exigence is the core of the rhetorical situation; Bitzer (1968) called it an "imperfection marked by urgency" (p. 6) that can be modified through communication, that is, the call for a communicative response. Thus, if rhetorical situations are spaces where people come together because a change needs to be made, the exigence determines the need for that change.

Exigencies are tricky, though. Because they drive the heart of the rhetorical situation, correlation between the exigencies among participants in a rhetorical situation can be the key to understanding why communication persuades in some contexts and is less effective or even nearly disastrous in others. This wide range of results can happen because the imperfection that the speaker and the audience address in the situation must be shared in order for modification to occur. Differences between the exigencies each party inhabits are one possible source of the clashes, problems, bad feelings, or other hallmarks of unsuccessful communication that we think of when it comes to vaccine controversy.

Objects and Things

The relationship between objects and things has been theorized by a number of scholars, though this article relies primarily on definitions developed by

Bruno Latour, who draws much of his terminology and distinctions from the philosopher Martin Heidegger. Latour and Heidegger examine how material objects operate to shift, change, and create human action in the world, particularly those involving science. Latour, in particular, works to understand the very different ways in which the material world around us operates for scientists versus non-scientists, or experts versus non-experts.

Latour (2004) distinguishes between objects, or matters of fact (p. 227), and things, or matters of concern (p. 231). Objects are stable, known quantities that exist in the world unproblematically. They operate in routinized ways to produce predictable results. They are complete and whole on their own without requiring explanation or additional consideration. They act upon humans and mediate human actions in predictable, consistent ways (p. 233).

Things, by contrast, are material that are still up for debate or discussion. They are unstable, compared to objects, operating in unpredictable ways that still require discourse and conversation to fully understand or conceptualize. Things range from working findings and new hypotheses to concepts that are approaching object status—they are almost certain, but not quite there yet.

Matters of fact, or objects, don't have to be debated or discussed; they are essential as a working starting point for moving on from one set of problems or questions to be answered to the next set of observations, findings, or concepts to be debated. Things and objects work together to produce knowledge. Objects can provide useful means for investigating the operations of things to gather more evidence or to allow deeper access to things that are being examined or observed. An example of such a situation would be the microscope—we don't question the microscope, whether it works, and how it works. It operates as a stable object that allows scientists to produce knowledge about things that are less stable, such as the viruses or biopsied cells or smears of blood that the microscope allows us to see.

For Latour and Heidegger, the forces of scientific consensus can make a thing an object, and new questions or findings can make an object a thing. This interplay, the distinction between what counts as a thing versus what counts as an object, can be one of the keys to understanding exigencies in rhetorical situations. If things and objects are not shared in rhetorical situations, then the rhetorical situation's exigencies or possible modifications might also not be shared. The means for modification of the exigence that drives the rhetorical situation will be difficult to achieve through

communication, or at least will require nuanced communicative approaches. You're simply at the bounds of what the rhetorical situation can accomplish and hold at one time. Furthermore, things and objects need to be held in balance by speakers and audiences in a rhetorical situation; if one communicator approaches something in the situation as an object—a matter of fact, not worthy of discussion—and another approaches it as a thing—a site of instability requiring further contemplation—then a mismatch or lack of acknowledgement of these differences can be the source of unpersuasive and unsuccessful communication.

So are vaccines things or objects? Are vaccines stable, known quantities that always operate in routinized ways? Or are they things—matters of concern that are variable in their operation and value, still up for discussion and debate? Many physicians, public health officials, and other health care providers quickly and easily answer that question by affirming that vaccines are *objects*. This is the predominant way in which vaccines are presented to parents and patients. The following analysis of Oliver's segment on *Last Week Tonight* shows such a casting of vaccinations. However, this position is also problematized by other data and different viewpoints on vaccine arguments, even those articulated by physicians themselves.

John Oliver and Perceived Vaccine Concerns and Refutations

In July 2017, the television show *Last Week Tonight with John Oliver* took on the topic of vaccines, or more specifically, vaccine controversy, skepticism, and resistance. Primarily an "infotainment" show similar to *The Daily Show* or *The Colbert Report*, each episode of Oliver's show includes one longer-format segment in which he covers a complex issue of significance, breaking it down to promote a better awareness and understanding of it.

Designed to be both entertaining and informative, the arc of the *Last Week Tonight* segment on vaccines is arguably more open-minded than many. Oliver keeps absolute criticism of vaccination concerns to a minimum, focusing those criticisms on prominent people who question vaccines, like Dr. Bob Sears and Andrew Wakefield. Instead, the overall message of his commentary outlines why vaccines are so important, refutes a variety of specific concerns parents have about vaccination, and ultimately encourages parents who are concerned about them to move past their fear of vaccination.

Oliver outlines eight anti-vaccine arguments and attempts to counteract them. His coverage is comprehensive, examining arguments such as the fraudulent MMR-autism connection to assertions that natural immunity is better to desires for more "spaced out" vaccines. All arguments and corresponding refutations are outlined in Table 1 below.

Each refutation is clear and concise, offering a direct counter-argument to the concern. Think vaccines cause autism? No, they don't; studies cannot find a link. Think Andrew Wakefield is persuasive? Well, he had his medical license revoked, which should diminish his ethos. Think that five or six vaccines against five or six different, dangerous diseases at once is too much? Well, kids encounter many, many more antigens on a daily basis, and their bodies are well equipped to handle the task. Each argument is directly and

Table 1. Anti-vaccine arguments and refutations on *Last Week Tonight*

Argument	**Refutation**
Natural immunity is better.	Catching disease is inherently risky.
The quantity of vaccines is too high.	Vaccines represent a "drop in the bucket" compared to the antigens kids encounter daily.
Vaccines cause autism.	There is no evidence to support this.
	The Wakefield study was fraudulent, retracted, and he has lost his license.
I want safer vaccines/no study asserts that vaccines are safe.	Vaccines are safe; they are monitored carefully, and even though there was no evidence of harm, thimerosal was removed from vaccines.
	Science can't prove a negative; scientists can't prove what vaccines *don't* cause. This is a language problem, though, not a science problem.
Vaccination mandates violate informed consent guidelines/the Nuremberg Code.	This is crazy/don't listen to Deuce Bigelow.
Vaccines are a ploy by big pharma to make money/doctors are incentivized by big pharma to encourage vaccines.	When vaccines have caused problems in the past, they have been pulled immediately. Therefore, if there were real, verified evidence of further harm, vaccines would have been pulled from the market.
Kids tend to develop things like autism after vaccination.	Correlation does not equal causation; the onset of autism simply tends to coincide with the timing of MMR.
I prefer Dr. Bob's Alternative Vaccine Schedule.	It isn't tested or endorsed by scientific authorities.

distinctly poised to be quickly dispelled, either directly with facts that counter the anti-vaccination claim or with experts who attest "don't worry about that; it's not true." Such a direct argument-refutation arrangement seems like a smart technique if you fail to dig a little deeper into why such arguments are persuasive to people in the first place. When viewed through the concepts of rhetorical situation and objects/things, we can see why anti-vaccination sentiments are so persuasive and why they are difficult to dispel.

For a more complete example of why these arguments fail to persuade, I now analyze one of the more ridiculous counterarguments that Oliver brings up: that vaccine mandates violate informed consent. To articulate his point, Oliver uses a clip featuring the actor Rob Schneider, best known for his portrayal of Deuce Bigelow in the movie *Deuce Bigelow: Male Gigolo*. Of course, Schneider is not the most reasonable person to make this point—a comedic actor, with no medical or ethical training at all, reduced to the following soundbite: "You can't make people do a procedure that they don't want. The parents have to be the ones to make the decisions for what's best for my, for our, kids. It can't be the government saying that. It's against the Nuremberg laws." It sounds crazy, and Oliver's response reflects that: "Yes that is Rob Schneider performing an impromptu rendition of his famous character, The Annoying Guy who is Wrong."

It *is* funny, and it *is* ridiculous to see Deuce Bigelow talking about the Nuremberg code. However, questions of ethics as they relate to the development of vaccines and mandatory vaccination requirements run deep in vaccination skepticism. The point is more clearly articulated in the chapter "Medical Ethics and Contemporary Medicine" (Hassner Sharav, 2011) in the collection of vaccine concerns and skepticisms, *Vaccine Epidemic: How Corporate Greed, Biased Science, and Coercive Government Threaten Our Human Rights, Our Health, and Our Children.* Some vaccine skeptics question the basic ethical risk calculus of vaccines: we know they carry risks, and therefore to mandate vaccination is to require some healthy people to assume risk on behalf of others, ultimately robbing people of their right to autonomous decision-making when it comes to health.

Beyond that, the author of this chapter, Vera Hassner Sharav (2011), outlines other historic precedents for being concerned about "greater good" arguments related to government decisions and health: the use of the landmark *Jacobson v. Massachusetts* Supreme Court case, which upheld mandatory vaccination laws, as precedent to also uphold eugenics laws in the 1920s; the infamous Tuskegee experiments; the hepatitis studies at

Willowbrook State Hospital in New York, where researchers deliberately infected children with hepatitis to better understand its operation and treatment. For a skeptical public, saying that vaccination mandates violate informed consent is an argument steeped in historical lessons about what can go awry when government and science remain unchecked.

To play Schneider's comment in isolation and reduce it to the ridiculous is to make two rhetorical errors. First, it fails to comprehend and address a shared exigence calling for modification. Skeptics might not see Schneider as a valuable source of information on vaccination—meaning an *ad hominem* response is ineffective anyway—but they may find arguments about individual liberty and rights in the face of the common good to be an issue of concern. Instead of ridiculing the position based on the person stating it, Oliver would be better poised to modify exigencies by addressing the concern at the heart of Schneider's comment. What *are* the ethical arguments behind protecting herd immunity through mandatory vaccination? Why *are* those morally sound reasons even in the face of troubling past precedents? Addressing those questions requires listening, seeing past what might initially seem like absurd comments, and understanding the question at the heart of the comment. Second, dismissing the beliefs illustrated by Schneider's comment works to reify the notion that parents must see vaccines as objects, or stable, certain sources of predictable outcomes. To question that, to be concerned about the implications of vaccine mandates, or to otherwise challenge a vaccine's *object-ness* is to exhibit wrong thinking, worthy of mockery and ridicule.

In consultations, parent concerns might be expressed through broad worries about vaccines, hesitancy about a specific vaccination, or a concern that a past symptom or experience was actually caused by a vaccine reaction. And, in response, physicians are often tempted to do just what Oliver does—say "But, vaccines are safe!" "MMR doesn't cause autism!" or "Correlation does not equal causation!" We see this even in the ethical counterarguments that ethicists like Arthur Caplan (2015) offer in response to arguments about the ethics of vaccines: "The science is unimpeachable: Vaccines do not cause autism; measles is dangerous and contagious; inoculating against the disease is neither pointless nor riskier than abstention" (n.p.). But real sources of worry might reach deeper and be informed by a much wider array of instabilities in what vaccines are than such refutations assume—in other words, parent concerns reflect *thing-ness*, but refutations insist on *object-ness*.

But, more to the point, are vaccines even objects anyway, as they are understood and conceptualized by those in science and medicine? I'm going to turn now to some findings that emerged across interviews I conducted to see what physicians' perspectives are on the status of vaccinations. These interviews suggest some sites of instability in vaccinations that point to a vaccine's thingness, in spite of the way they are constructed for parents.

Vaccines as Objects, Vaccines as Things

The study reported on here was conducted in 2012 through 2013[1]. I conducted hour-long interviews with nine physicians in a rural area in a Southeast state. The purpose of this small study was to investigate physician perspectives on vaccines, disease, and professional practice, since very little is known about this topic from this perspective. Few empirical studies have asked physicians about their perspectives on vaccinations and vaccine concerns. The participants in the study varied greatly—including three pediatricians, one pediatric oncologist, one OB-GYN, one family doctor, and an additional family doctor who was currently serving as a Public Health District Officer. Although this study did not generate generalizable findings, patterns in these participants' perceptions of and experiences with vaccinations offer interesting insight for medical professionals grappling with some parents' assumptions about vaccination as a thing versus its presentation as an object.

The first excerpt is from Dr. Gamma, a pediatric oncologist. During our interview, the chicken pox vaccine came up a couple of times as her go-to example of a vaccine that's essential and important, even though the purpose of the study was to talk about childhood vaccinations and general and flu vaccine in particular.

In the following excerpt, she states:

> I: And in fact, one of the things that we tell families, you know, 'cause they'll say, "what can we do to help this family?" and I'll say, "tell them (xxx) chicken pox vaccine in school so your child can go to school safely."
> H: Really?

[1]IRB 10-489 [VT]; #10-739 [GMU].

> I: Yeah, so, because, you know, if their classmate breaks out with chicken pox, it means, you know, a long stay in the hospital for them, it interrupts their therapy, it decreases the chances that we're gonna cure them. It's huge.
> H: Wow.
> I: Huge. Same thing with the flu. So, you know, these diseases are devastating to the population I treat, and so I get very twitchy when people don't want to vaccinate.

And, in a different section of our interview, she states:

> But, I think you, people just don't get that they're putting other people at risk. I've got people flying in airplanes and (xxx) "You realize your child has chicken pox, right?" "Oh yeah." I said, "Well, you're not supposed to be flying." and they said, "Yeah, don't tell anybody." *Yeah*, really nice, so you know, the person sitting next to you has breast cancer, *and they're in active therapy*, thanks. *Yeah they don't get that they can kill people doing this*. So, it's *certainly like handing a baby a loaded gun* and going, "here, play with this for a little while." [italics indicate emphasis by speaker during interview]

So, in these statements, Dr. Gamma constructs chicken pox and flu, in particular, as serious, deadly diseases. This is particularly the case for the cancer population she treats, but also for people and children who might also have serious, life-threatening consequences from the disease. In these cases, vaccines function as stable, consistent forms of protection in service of achieving the more important goal of disease prevention.

In another interview, with Dr. Epsilon, a general pediatrician, polio came up a few times in our conversations about perceptions of relative risk. In this excerpt, he says the following:

> . . . they didn't pick these vaccinations out of the air, they've chose, okay, this is a serious illness, and the polio virus, you have patients who can't breathe, who are in the iron lungs in the '50s. If they do survive and they've got serious muscle sequelae and maybe they can walk and maybe they can't . . .

Here Dr. Epsilon indicates that even a disease like polio, which seems like the outdated disease of another generation, is still important to vaccinate

against. Vaccines are designed to prevent the diseases that also carry the most confounding complications and are most difficult to cure. So, in this case, even the polio vaccine can't be skipped—it works, and it works predictably in service of the larger mission of disease prevention, so everyone should just get it.

For Dr. Epsilon and Dr. Gamma, vaccinations function as objects in the ways that they are constructing their importance to patients and the community writ large—even for diseases that might seem mild or low risk, like chicken pox or polio. If there's a vaccine and it works, then there's no reason not to get it.

Next I turn to two examples from a pediatrician and a family doctor with contrasting points of view. Again, these are doctors who are pro-vaccine; they work within established medical systems within the same community as Drs. Gamma and Epsilon. Here is an excerpt from Dr. Delta, a pediatrician:

> I've got a few patients that have said, I only want them to get one vaccine at a time, and that's okay as long as they're—as long as they come in for those extra appointments, um we have a few patients that have decided not to do specific ones, like some people don't want to do the hepatitis vaccines, which is fine, I mean, you're going to get sick but it's not going to be life threatening. Um, we've a few patients who've said, I don't really want to do polio there's so little polio in the world anyhow, if you live in [region] you probably aren't going to get exposed to polio, so I'm okay with that. So there are a few things like that where-where I feel that we can be a little bit more lax and work with people. Um, I've had a few patients that have said no chicken pox and um, and I'll go along with that um, as well.

Dr. Gamma clearly delineates between the diseases that are serious and vaccines that should not be skipped versus the vaccines that are more negotiable, which are actually the same vaccines that Drs. Gamma and Epsilon bring up. Here, Dr. Delta says "eh, chicken pox, probably fine;" "polio, probably not going to happen." Dr. Graig, a family practice physician, makes similar comments:

> And again, I, I, I have to be honest with my patients. I think that's just so important, but, but, and I lose my credibility if I'm not, so

> you know you look through the list, and I've got this patient who is in our area, and do they have to have the polio vaccine? I believe in herd immunity, yes I do, but the risk of polio to that child is essentially zero right now. Um, the risk of um, um, pertussis a different story. The risk of tetanus is extraordinarily low. Um, diphtheria risk is extraordinarily low. I haven't seen a case in twenty-five years. Ah, what else? Uh, you know as far as other vaccines, hepatitis B, hepatitis A, the risk is extraordinarily low. Haemophilus influenza you could argue might make a difference; Prevnar [the vaccine that protects against Streptococcus pneumoniae] might make a difference, ah but again, when they really pin me down on these, the reality is, is for some of these illnesses the true risk is low. Now that being said, herd immunity is part of the reason that they are low, but I did just want to make that point.

Even across this small sample set of four interviews, we see the tensions occurring across professional discourses about whether or not vaccines are things or objects. For the first two respondents, vaccines are objects, especially as they characterize them for their patients; they are stable, consistent sources of disease prevention, which offers necessary certainty in the face of uncertain disease. This extends to diseases like chicken pox or flu, which many perceive as mild, and polio, which many perceive to present no realistic risk to children in the United States. However, the other two doctors from the same area cast these same diseases and vaccines in a different light. For them, vaccines don't all serve the same, predictable purpose; some do pose unnecessary costs and risks in comparison to the diseases they prevent; some diseases shouldn't be risked, and in those cases the vaccine operates object-like—it is a good, valuable, consistent source of prevention. But this is not the case with vaccines as a whole; not all vaccines are equal, and therefore vaccines are not consistent matters of fact; they still fall under matters of concern, things to be discussed, contemplated, and negotiated. This position illustrates how vaccines are sometimes considered things among professionals, just as they are for many parents. They have some objectness to them in some cases, but as long as they retain some of their thingness, their instabilities, be they based on individual risk patterns, geography, disease severity, or individual patient susceptibility, they are reasonably up for deliberation.

Thus, to treat vaccines like objects and objects only when communicating with parents could contribute to incommensurate exigencies (or calls for response or modification) in rhetorical situations. Tactics that help parents to work through their concerns about vaccine's thingness—such as explaining to them the specific risks of contracting a disease like Hib in the first months of life and the importance of vaccination relative to that disease—might be a better rhetorical strategy for addressing patient concerns, for example, than just the rote "vaccines work" message. In the case of a thing-based persuasive strategy, you are actually addressing the exigence the parent brings to the rhetorical situation. You are working through the thingness of the vaccine, rather than just insisting that it is an object.

Improving Communication Through Understanding and Shared Exigencies

I make all of these claims as part of a larger point about how communication about vaccinations can be improved, both in clinical environments as well as how they impact public health initiatives. Re-framing our current ways of seeing the problem to attend to the rhetorical needs of the situation may allow physicians, public health practitioners, and the public at large to leverage the power of persuasive approaches to vaccine concerns over regulatory ones.

In the face of vaccine concern or skepticism, shared notions of things versus objects can be key to recognizing shared exigencies. Things and objects populate the spaces in which rhetorical situations occur and set up the conditions for discourse. Therefore, understanding the vaccine's thingness for both patients and professionals is a good starting point for identifying better communication strategies when talking with hesitant parents. Furthermore, as previous rhetorical research on vaccine concerns has shown (Lawrence, Hausman, & Dannenberg, 2014), questions about vaccines cannot be assumed to be global problems that are the same for all people in all communities at all times. Not only are patient concerns specific to each vaccine (i.e., a parent may refuse a flu vaccine for different reasons than he or she refuses MMR for a child), but they are also specific to the concerns and problems being experienced in one's community.

Additional work conducted in the study discussed here as well as follow-on studies conducted by other researchers in the Vaccination Research

Group at Virginia Tech focused on the vaccination beliefs and practices of a community of non-vaccinators who experienced two outbreaks of pertussis (Hausman, 2017). Members of that community report choosing to not vaccinate against pertussis because of local beliefs in the protective value of disease and the collaborative role a community plays in promoting healthy living. These locally articulated rationales for not vaccinating require a notably different approach—or constitute a notably different rhetorical situation—than standard persuasive counter-arguments to vaccine concerns might assume.

Although, as Caplan states "the science is unimpeachable" (n.p.) that vaccines are safe, other elements of vaccination as a public practice continue to contribute to its thingness, particularly when it comes to vaccine recommendations and mandates, which carry very little formal authority, vary widely across states and medical practices, and may be unevenly covered by insurance. The message to patients across all of these public spaces is entirely reflective of the tensions between presenting vaccines as objects versus things. To look at CDC and official messaging, we see that all vaccines are good, all vaccines are safe, and all vaccines should be delivered on time according to routinized schedules. However, when state requirements are less stringent than CDC schedule recommendations (for example, not all states require vaccines against rotavirus, Hib, and flu for school entry), a parent can quite reasonably conclude that some vaccines are just "extra," only for certain populations, or not applicable to them.

Something similar happens when a parent goes to the doctor and is told that he or she is out of a particular vaccine or when a patient sees a news report that the year's flu vaccine turned out to be not very protective against the circulating strains of flu. Every year, the CDC releases data that indicates how effective the year's flu vaccine has been at protecting against the actual strains of flu in a community; some years, the match is quite good, but in other years it is not. And we know that, even if you get the flu shot, you can still get the flu—just a different strain of it than what has been included in the vaccine. Even if you get MMR, you can still get measles if your immunity has waned and you are exposed. For many of us, experience with chicken pox as children conjures warm memories of oatmeal baths, watching cartoons on the couch, and a week off of school home with mom; the varicella vaccine hardly seems like an urgent public health objective to be addressed by any means necessary when considered in that context.

Vaccines are not uniform in our policies, in our practices, or even in how they operate in the real world. Seeing the controversy as one about the instability of a scientific technology as it operates in the public sphere—rather than an argument about whose facts are most reliable or whose beliefs should dominate—allows us to see new spaces for engagement about vaccines and new types of rhetorical situations in which questions about vaccines may be more productively discussed. Continuing to communicate to parents as though these are stable objects when parents know that they are not is to fundamentally miscommunicate important information about the nature of vaccinations, making exigencies less likely to be modified if they are not shared.

A communication approach that acknowledges the vaccine's thingness can help to inform methods for research that move away from current assumptions about vaccine skepticism. Such an approach requires that we identify specific points of tension about vaccinations before trying to modify exigencies. Unfortunately, platitudes about what vaccine skeptics think are frequently reinforced by media reports, brochures that offer physicians' recommendations on how to communicate about vaccines, and other forms of parent outreach. Assuming that all parents think that vaccines cause autism, subscribe to "wrong thinking," or do not possess the ability to fully understand science is to ignore other sites of instability in the operation of the vaccine as a thing. We can accept as fact within this paradigm that vaccines do not cause autism, that whoever can vaccinate should vaccinate, and that the schedule recommended by the CDC is likely to be beneficial to all healthy children. But re-reading reluctant parents' concerns not as "skepticism about vaccines" but rather "responses to the vaccine's thingness" can give us a new way to see why vaccine concerns persist despite evidence that they are safe. Within this view, a combination of persuasive tactics, including communications strategies, policies, and scientific findings must all work together to improve communication about vaccination. Persuasion is a more open, ongoing, and iterative process of sharing perspectives and shaping common exigencies, rather than a one-off wherein patients either exhibit "right thinking" about vaccines and accept them or refuse and are removed from a practice.

Insisting that parents view vaccines as objects in the manner that Oliver does and treating concern about them through either deficit or derision offers one explanation for why many of the most skeptical parents fail to

change their minds. Furthermore, and possibly more consequently, such attitudes may damage communication in other forms and across other spaces; parents who do not open up about concerns and questions about vaccines might be closed off to other questions or concerns of importance to their child's health. A perceived negative reaction to vaccine concerns could encourage the parent to seek out another practice, avoid appointments, or even recede from the medical system, which jeopardizes a child's overall access to health care.

Acknowledging a vaccine's thingness, comprehending and adopting a variety of exigencies, and truly working through discourse to modify rhetorical situations offer solutions to vaccine disagreements rooted in cooperation and comfort. Oliver states in the concluding comments in his piece that pediatricians are not responsible for making parents comfortable: "Your job is to make sure children don't get deadly diseases, not to make parents comfortable, because you're a pediatrician, not a flask of whiskey tucked into a BabyBjorn." I laughed at that too. But such a position ignores the fact that open lines of communication might be a better route than firm lines of authority to making sure children are protected from harmful and potentially deadly diseases.

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References

Bitzer, Lloyd. (1968). The rhetorical situation. *Philosophy and rhetoric*, *1*(1), 1–14.

Caplan, Arthur. (2015, February 6). Revoke the license of any doctor who opposes vaccination. *The Washington Post.* Retrieved from https://www.washingtonpost.com/opinions/revoke-the-license-of-any-doctor-who-opposes-vaccination/2015/02/06/11a05e50-ad7f-11e4-9c91-e9d2f9fde644_story.html?utm_term=.00c4c7faf1c8

Colgrove, James. (2006). *State of immunity: The politics of vaccination in twentieth-century America.* Berkeley: University of California Press.

Hassner Sharav, Vera. (2011). Medical ethics and contemporary medicine. In Louise Kuo Habakus & Mary Holland (Eds.), *Vaccine epidemic: How corporate*

greed, biased science, and coercive government threaten our human rights, our health, and our children (pp. 71–81). New York: Skyhorse Publishing.

Grant, Lenny, Hausman, Bernice L., Cashion, Margaret, Lucchesi, Nicholas, Patel, Kelsey, & Roberts, Jonathan. (2015). Vaccination persuasion online: A qualitative study of two provaccine and two vaccine-skeptical websites. *Journal of Medical Internet Research, 17*(5), e133.

Hausman, Bernice L. (2017). Immunity, modernity, and the biopolitics of vaccination resistance. *Confi urations*, *25*(3), 279–300.

Hausman, Bernice L., Ghebremichael, Mecal, Hayek, Paul, & Mack, Erin. (2014). "Poisonous, filthy, loathsome, damnable stuff": The rhetorical ecology of vaccination concern. *The Yale Journal of Biology and Medicine*, *87*(4), 403.

Kolodziejski, Lauren R. (2014). Harms of hedging in scientific discourse: Andrew Wakefield and the origins of the autism vaccine controversy. *Technical Communication Quarterly*, *23*(3), 165–183.

Malkowski, Jennifer. (2014). Confessions of a pharmaceutical company: Voice, narrative, and gendered dialectics in the case of Gardasil. *Health communication*, *29*(1), 81–92.

Latour, Bruno. (2004). Why has critique run out of steam? From matters of fact to matters of concern. *Critical Inquiry*, *30*(2), 225–248.

Lawrence, Heidi Y. (2014). Healthy bodies, toxic medicines: College students and the rhetorics of flu vaccination. *The Yale Journal of Biology and Medicine*, *87*(4), 423.

Lawrence, Heidi Y., Hausman, Bernice L., & Dannenberg, Clare J. (2014). Reframing medicine's publics: The local as a public of vaccine refusal. *Journal of Medical Humanities*, *35*(2), 111-129.

Scott, Jennifer L, Kondrlik, Kristin E., Lawrence, Heidi Y., Popham, Susan L., & Welhausen, Candace A. (2015). Rhetoric, Ebola, and vaccination: A conversation among scholars. *Poroi*, *11*(2), 5.

Oliver, John. (2017). Last Week Tonight with John Oliver: Vaccines (HBO). *Last Week Tonight with John Oliver.*