The Myth of the Good Epistemic Bubble

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Abstract
Intellectual interest in epistemic bubbles and echo chambers has grown exponentially over the past two decades. This is largely because many assume, in light of recent events, that these phenomena are morally, socially, politically, and epistemically problematic. But are we justified in simply assuming that epistemic bubbles and echo chambers are inherently *epistemically* problematic? Perhaps surprisingly, numerous philosophers have recently argued that epistemic bubbles and echo chambers are not intrinsically epistemically problematic. Nevertheless, I argue, this trend is mistaken. Epistemic bubbles and echo chambers are all intrinsically epistemically problematic, such that we should try to escape them, if we find ourselves in them. Crucially, there are two senses in which we might identify epistemic bubbles and echo chambers as being intrinsically epistemically problematic, as opposed to "good." After distinguishing between these senses, I demonstrate that, even if there is a sense in which epistemic bubbles can in principle be "good," all epistemic bubbles are epistemically problematic in the sense that is ultimately relevant to the question of whether we ought to stay in epistemic bubbles or to try to get out of them.

The rise of social media and political polarization has sparked a rich profusion of interest in the social phenomena of epistemic bubbles and echo chambers. Such interest is largely the result of a widespread assumption that these social phenomena are morally, socially, politically, and epistemically problematic. Perhaps surprisingly, however, numerous philosophers have recently argued that epistemic bubbles and echo chambers are not intrinsically *epistemically* problematic, regardless of whether or not these phenomena are problematic in other ways.[1] In what follows, I argue that this trend is mistaken. Epistemic bubbles and echo chambers are all intrinsically epistemically problematic, such that we should try to escape them, if we find ourselves in them.

I begin by considering various ways of defining "epistemic bubbles" and "echo chambers" for the purpose of clarifying why and how I intend to use these terms going forward. I then pause to examine and elucidate the problem at hand (§1). Next, I present the strongest form of argument as to why epistemic bubbles and echo

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[1] I primarily have Lackey (2018, 2021), Fantl (2021), Levy (2021), and Begby (2022) in mind.

chambers are not inherently epistemically problematic, and I identify how this argument equivocates between two interpretations of what it is for an epistemic bubble to be "good," as opposed to epistemically problematic (§2). I proceed to demonstrate that there is an important sense in which epistemic bubbles are inherently epistemically problematic, even if there is another sense in which epistemic bubbles can in principle be "good." Crucially, the former sense is the sense that is relevant to the question of whether we ought to stay in epistemic bubbles or to try to get out of them (§3). To conclude, I respond to a number of objections (§4).

1. Definitions and Preliminaries

Defining epistemic bubbles and echo chambers is a tricky matter. What is nonetheless clear is that much of the recent discussion about these phenomena arose out of interest surrounding the rise of the contemporary media establishment, social media networks and blogs (Jamieson and Cappella 2008; Gilbert *et al.* 2009; Sunstein 2017; Avnur 2020). Epistemic bubbles and echo chambers are thought to be linked to the "filtering," intentional or not, of what information and media an individual consumes in the context of a pluralistic society.

Perhaps as a result of what initially sparked much of the discussion about them, the terms "epistemic bubbles" and "echo chambers" are often used pejoratively.

For example, Sunstein prefaces his book #*Republic* by stating that "[i]n a well- functioning democracy, people do not live in echo chambers or information cocoons," and he goes on to suggest that echo chambers and "information cocoons" matter because they can lead to violent extremism, criminality and political polarization (Sunstein 2017: ix, 9–12). Even more recently, Anderson writes that "[c]ontemporary American political discourse is *distorted* by 'epistemic bubbles'," which she defines as "relatively self-segregated social network[s] of like-minded people, which *lack* internal dispositions to discredit false or unsupported factual claims in particular domains." Epistemic bubbles' lack of these internal dispositions, Anderson claims, leave their members "liable to converge on and resist correction of false, misleading or unsupported claims circulated within it" (Anderson 2021: 11. Emphases mine). Likewise, Nguyen, who carefully distinguishes epistemic bubbles and echo chambers, defines the former as "a social epistemic structure which has *inadequate* coverage through a process of exclusion by omission," and the latter as "a social epistemic structure in which other *relevant* voices have been actively discredited" (Nguyen 2020: 142–3, 146. Emphases mine).

Given these definitions, it may seem natural to think of "epistemic bubbles" and "echo chambers" as inherently pejorative terms, especially provided their association with the rise of the contemporary media establishment and social media networks. However, as noted above, there remains substantial disagreement over whether or not epistemic bubbles and echo chambers are actually inherently epistemically problematic. In light of this, it would be misguided to simply define these terms in a way that stipulates from the outset that they are problematic in this way. So, for the purposes of answering the question of whether or not these phenomena are inherently epistemically problematic, I will define epistemic bubbles and echo chambers in *neutral* terms and refrain from assuming that these phenomena are, by definition, problematic.

How, then, might we define epistemic bubbles and echo chambers in neutral terms? I suggest that we take our cues from the foregoing literature and define an *epistemic bubble* as a "bounded, enclosed" social epistemic structure in which endorsed views are "frequently repeated and reinforced while dissenting views" are either absent or

ignored.[2] An epistemic bubble thus "has the potential to both magnify the messages delivered within it and insulate them from rebuttal" (Robson 2014: 2520; Nguyen 2020: 142–6). We can think of echo chambers as going one step further than epistemic bubbles and fulfilling this potential to magnify their content and protect it from dissent. Let us define an *echo chamber*, then, as an epistemic bubble in which accepted views are not only magnified, repeated and reinforced but also insulated from rebuttal by way of either the drowning out of dissenting views or the discrediting of the sources of those views. Henceforth, I will use "epistemic bubble" and "echo chamber" in these neutral senses of the terms. I will argue that even given these neutral definitions, all epistemic bubbles are, in fact, epistemically problematic. Since echo chambers are a special kind of epistemic bubble, if it can be shown that *all* epistemic bubbles are epistemically problematic, it straightforwardly follows that echo chambers are epistemically problematic as well. Hence, I will largely focus on the notion of an epistemic bubble in what follows.

Before considering the strongest argument for why epistemic bubbles are *not* all inherently epistemically problematic, though, we would do well to take a deeper look at the problem before us. As I have said, the question we face is whether or not epistemic bubbles are inherently epistemically problematic. As I clarify below, however, there are a couple of ways that we could interpret what it means for an epistemic bubble to be "epistemically problematic." In considering what is the relevant sense of "epistemically problematic" for our purposes, it is important that we first notice why we, as participants in the debate, care about answering the question. We care because we want to know what we ought to do as epistemic agents if we find ourselves in epistemic bubbles. That this is the case is made clear in the literature. For those who claim that epistemic bubbles are not inherently epistemically problematic, more or less explicitly, conclude that it can be rational to stay put in at least some epistemic bubbles, while those who claim that epistemic bubbles are inherently epistemically problematic conclude that it is never rational to stay put in epistemic bubbles.[3] I submit that what it is that epistemic agents rationally ought to do – with respect to staying put in or leaving an epistemic bubble – can best be thought to turn on whether or not one could ever be *justified in believing* that an epistemic bubble is objectively truth-conducive, i.e. endorses true opinions.[4] If we can never be *justified in believing* that an epistemic

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[2]I take my cues for this neutral conception from Jamieson and Cappella (2008: 75–6), Robson (2014: 2520–1), and Nguyen (2020: 143, 146).

[3]To be clear, Lackey and Fantl do not explicitly use the language of "rationality." However, Lackey (2021: 225) considers what is epistemically problematic with echo chambers for the direct purpose of diagnosing what is epistemically wrong with, for example, the "epistemic behavior" of someone who relies on only Fox News for all of their news consumption. She concludes that what is wrong with such an agent's epistemic behavior is not that they are in an echo chamber but that they are in an echo chamber that endorses false opinions. Presumably, if the aim of Lackey's inquiry is to diagnose what is *epistemically wrong* with the *epistemic behavior* of an agent, then it is also to diagnose what is *not rational* about the agent's epistemic behavior. A main conclusion of her argument is that there is nothing epistemically wrong with one's being in an echo chamber per se, which implies that there is nothing necessarily irrational about being in an echo chamber.

Following Lackey, Fantl (2021: 2) takes the diagnosis further and concludes that "we should want to inhabit truth-conducive echo chambers." Again, if the suggestion is that it is *epistemically desirable* to be in some echo chambers, then the implication is that it would also be *rational* to be in some echo chambers. It would be out of place for the epistemologist to endorse certain epistemic behavior but deny that it is rational behavior. For more, see Fantl (2021) and Lackey (2021: 206–19, 225).

[4]I further clarify what is meant by an objectively truth-conducive epistemic bubble in my discussion of good$_o$ epistemic bubbles below.

bubble is objectively truth-conducive, it would be reasonable to conclude that it could never be rational to stay put in it – even if there is some more "objective" sense in which it could be good or beneficial to do so. By contrast, if we can be justified in believing that some epistemic bubbles are objectively truth-conducive, then it would be reasonable to conclude that it could be rational to stay put in at least those epistemic bubbles.

Since we are concerned with what an epistemic agent rationally ought to do if they find themselves in an epistemic bubble, it matters that we have a clear understanding of two things: first, what it is to be *justified in believing* that one is in an epistemic bubble and, second, what is required to count as *leaving* an epistemic bubble. Given our definition of an epistemic bubble, trivially, one is justified in believing that one is in an epistemic bubble if one is justified in believing one is in an enclosed social epistemic structure in which certain views are regularly stated and affirmed as correct and in which views in dissent to those endorsed views are absent or overlooked. But notice that this characterization seems a bit too abstract to be helpful. We want to know what detectable signs might indicate to an epistemic agent that they are in an epistemic bubble understood in this way. Here I suggest the following sufficient condition for an epistemic agent's being justified in believing that they inhabit an epistemic bubble: they are justified in believing this when they recognize that (a) the sources from which they almost always aim to receive news or opinions are of a certain "exclusive" kind k and (b) the community in which they verify their opinions and from which they aim to receive additional news or opinions consists only of members who also almost always aim to receive news or opinions from only k sources.[5]

By *aiming* to receive news from a particular source, I mean that an epistemic agent (i) considers that source to at least sometimes be a vessel of true claims; (ii) listens on occasion to or considers opinions from that source; and (iii) generally considers claims stated by that source to be true until proven otherwise. So, for example, if an epistemic agent believes that either Fox News or CNN is rarely, if ever, a source of true opinions, such that they would immediately dismiss opinions expressed by that news source until proven otherwise, then whether or not they listen to or engage with those sources, they do not aim to receive news or opinions from that source. By an *exclusive* kind of source, I mean a source that is known to endorse and take a side of opinion on particular issues and to ignore or leave out dissenting viewpoints to their side of opinion on particular issues. Many, though not all, sources that are known for leaning far to the political left or right count as exclusive sources.

It is worth mentioning here that whether one is in an epistemic bubble can be a matter of degree.[6] One may be justified in believing that one is more or less inside an epistemic bubble, depending on how often one aims to receive news or opinions from an exclusive source k, as opposed to alternative sources, and how often one's community does the same. So, if one aims to receive news or opinions from k 98% of the total time one spends consuming news – and one's community aims to receive news or opinions from k 95% of the time that they spend consuming news – one would be justified in believing that one is *more* in an epistemic bubble than if one were to aim to receive news or opinions from k 80% of the time while one's community were to do the same. For the sake of simplicity, I focus below on cases of one's being justified in believing that one is in an epistemic bubble, without further mention of the degree to which

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[5]While I here offer only one sufficient condition for being justified in believing that one is in an epistemic bubble, I suspect there are others.

[6]I thank an anonymous reviewer for prompting me to say more about this.

one is justified in believing that one is in an epistemic bubble. My arguments below, however, are intended to straightforwardly extend to include considerations of the degree to which one is in an epistemic bubble and the degree to which one is justified in believing that one is in an epistemic bubble.

An epistemic agent who is justified in believing that they are in an epistemic bubble may either decide to stay put in their epistemic bubble or to leave it. Taking into account our sufficient condition for, in practice, being justified in believing that one is in an epistemic bubble, let's say that one can *stay put in* an epistemic bubble by maintaining the status quo, doing and allowing nothing to alter either the kinds of sources from which one aims to receive news or opinions or the enclosed community in which one verifies one's opinions and from which one aims to receive additional news or opinions, namely by doing and allowing nothing to alter either (a) or (b). And let's say that one can *leave* or *exit* one's epistemic bubble by changing the status quo, by altering (a) or (b). An individual may more or less stay put in, or otherwise exit, their epistemic bubble depending upon the degree to which they alter (a) or (b). Importantly, in order to exit one's epistemic bubble, one need neither reject nor disregard one's prior beliefs or background assumptions. But in exiting, one may begin to question the particular opinions endorsed in the epistemic bubble that one just left.[7]

As I mentioned above, there are different ways of interpreting what it means for an epistemic bubble to be inherently epistemically problematic, as opposed to being "good." According to one interpretation, an epistemic bubble is epistemically problematic when it is not truth-conducive, i.e. when it spreads falsehoods, and correspondingly, an epistemic bubble is good when it is truth-conducive, i.e. it does not spread falsehoods. Call this *the wholly objective interpretation*, and mark it with 'epistemically problematic$_o$' – or 'bad$_o$' for short –and 'good$_o$'. On another interpretation, an epistemic bubble is epistemically problematic when it is not rational to believe that it is truth-conducive, and an epistemic bubble is good when it is truth-conducive and rational to believe that it is truth-conducive. Call this *the perspectival interpretation*, and mark it with 'epistemically problematic$_p$' – or 'bad$_p$' – and 'good$_p$'.[8] In the next section, I will consider an argument in support of the claim that there are some good epistemic bubbles and hence that it would sometimes be rational to stay put in good epistemic bubbles. I will show that this argument employs a notion of a 'good' epistemic bubble

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[7]For example, suppose I am justified in believing that I am in an epistemic bubble because I recognize that my community members and I receive almost all of our news from sources of an exclusive kind k. And suppose that k reports p, and p is frequently repeated and endorsed in the context of my epistemic bubble. Then, in order to exit my epistemic bubble, I can aim to receive news from a source that isn't of kind k and/ or extend my epistemic community to include members that don't almost always receive news from k sources. Furthermore, it follows from our definition of epistemic bubbles that, if I begin to question the truth of p and consider dissenting views, I thereby exit my epistemic bubble.

[8]Epistemic bubbles may be more or less truth-conducive. On the wholly objective interpretation, we say that an epistemic bubble which spreads no falsehoods is 'good$_o$', and we would also say that an epistemic bubble which spreads less falsehoods than alternative epistemic bubbles is 'good$_o$' in the sense that it is more truth-conducive than relevant alternatives. We would call those alternative, less truth-conducive epistemic bubbles 'bad$_o$'. On the perspectival interpretation, we would say that an epistemic bubble of which it isn't rational to believe that it is 'good$_o$', in either sense, is 'bad$_p$', and that an epistemic bubble which is 'good$_o$', in either sense, and of which it is rational to believe that it is 'good$_o$' in that sense is 'good$_p$'.

For the purpose of clarity, and directly engaging with the literature, I will primarily focus my attention on the ideal case of a 'good$_o$' epistemic bubble that spreads no falsehoods. If I can show that it isn't rational to stay in such an epistemic bubble, I have addressed the hardest case, and so my arguments straightforwardly extend to epistemic bubbles that are 'good$_o$' to a lesser degree.

that is ambiguous between the objective and perspectival interpretations. Moreover, I will contend that, in order to support its conclusion, this argument must show that it could be *rational to believe* that an epistemic bubble is good$_o$; that is, that epistemic bubbles can be good$_p$. In §3, I will question an assumption and argue that it cannot be rational to believe that an epistemic bubble that one occupies is good$_o$. Thus, even if in principle there are good$_o$ epistemic bubbles, there are no good$_o$ epistemic bubbles that it would be rational to believe are good$_o$. That is, there are no good$_p$ epistemic bubbles, and so it is never rational to stay put in an epistemic bubble.

2. Why to Stay Put

We can think of the strongest argument for why epistemic bubbles are not inherently epistemically problematic – and thus why we may not be rationally required to escape all of them – as proceeding in two steps. First, it is argued that the prima facie reasons for suspecting that epistemic bubbles are epistemically problematic are not genuine reasons for thinking that they are inherently epistemically problematic (Step 1). Then, an alternative explanation concerning the *content* of epistemic bubbles is offered as to why we initially suspect that epistemic bubbles are epistemically problematic (Step 2). The result of these argumentative steps is that there are two types of epistemic bubbles – truth-conducive (i.e. good) ones, and non-truth conducive (i.e. epistemically problematic) ones – and we only rationally ought to exit the non-truth conducive epistemic bubbles. Since there are good epistemic bubbles, it is rational to stay put in some epistemic bubbles (Fantl 2021; Lackey 2021). With an overview of the argument in mind, let's consider each of these argumentative steps in turn.

The first step begins by considering reasons why many have initially thought that epistemic bubbles are epistemically problematic. One reason is that epistemic bubbles, as bounded social epistemic structures, lack a diversity of viewpoints. This lack of a diversity of viewpoints is presumably problematic because the presence of a diversity of viewpoints has traditionally been thought to be necessary for exposing epistemic agents to a full range of relevant evidence and aiding them in recognizing their own limitations and weaknesses as knowers. By encountering counterevidence to and counterarguments for one's own beliefs, the traditional thought goes, epistemic agents are driven to further verify their beliefs and, ultimately, better arrive at the truth. Moreover, the presence of a diversity of viewpoints serves to promote the epistemic virtues of open-mindedness and humility and the recognition of one's own fallibility as a believer. These virtues are thought to lead to progress, as believers are prompted, in the face of dissenting views, to subject their beliefs to scrutiny until they arrive at the truth.[9]

But despite the fact that a lack of diverse viewpoints may appear problematic, some contend that we have reason to reject this traditional thought. Fantl, for instance, argues that epistemic agents should *not* always be open-minded to new counterarguments and counterevidence. He proposes that there are some circumstances in which the rational agent should not be open to reducing their confidence in their own beliefs.[10] And he

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[9]Lackey (2021: 214–5) and Fantl (2021: 2–5). On the traditional thought, consider Mill (1956: 64).

[10]More precisely, Fantl (2021: 3) discusses why epistemic agents should not always be open-minded about their view in a particular sense of open-mindedness, namely the sense of open-mindedness in which one is willing to reduce one's confidence in one's own view, in response to a counterargument to one's view, whenever (i) one's view is controversial – such that a significant number of rational thinkers disagree with their view – and (ii) one cannot find a flaw in the counterargument.

argues that this may be the case *even if* the rational agent cannot find flaws in the counterarguments to their beliefs and finds each step in those counterarguments individually compelling. For Fantl, being in an epistemic bubble which endorses only true beliefs qualifies as a circumstance in which the rational agent should not be open-minded. So, if one finds oneself in an epistemic bubble which endorses only true beliefs, then one has no epistemic reason to seek alternative perspectives outside of that bubble. In fact, if one's only epistemic goal is to acquire true beliefs and avoid acquiring false ones, then one may even benefit epistemically from the lack of exposure to diverse viewpoints in their epistemic bubble.[11]

In addition to Fantl, others have argued contra the traditional thought that limiting one's sources of information can at times have epistemic benefits or value.[12] As fallible knowers, we may do little more than *risk* acquiring false beliefs by exposing ourselves to opposing perspectives of our true beliefs. For example, there seems to be no epistemic benefit to seriously listening to the arguments of QAnon supporters. If we know that pizzagate is a false theory, then how could bearing in mind the arguments for why pizzagate is true possibly help us acquire more true beliefs and avoid acquiring false ones? A possible result of taking the arguments for pizzagate seriously is that we acquire the false belief that pizzagate is true. Another possibility is that we come to reject the arguments in favor of the truth of pizzagate and maintain our belief that pizzagate is false, but in that case, we still would not have acquired any true beliefs by subjecting our belief about pizzagate to scrutiny. We would have done little more than risk losing the true belief we initially held. Yet another potential outcome is that we decide to suspend judgment, in which case we would have given up our true belief without acquiring any additional true beliefs. Since none of these possible outcomes help us acquire more true beliefs and avoid acquiring false ones, it would seem that the epistemically responsible agent ought *not* to riskily expose themselves to the strongest arguments in favor of pizzagate. This suggests that, if our epistemic goal is to arrive at true beliefs and avoid acquiring false ones, then we may do well in certain circumstances to limit our sources of information due to the fact that exposing ourselves to a diversity of viewpoints could be counterproductive to our goal. Given that a lack of exposure to diverse viewpoints doesn't necessarily inhibit us from accomplishing our goal as epistemic agents, some argue that the lack of diverse viewpoints in epistemic bubbles is not necessarily epistemically problematic (Lackey 2021: 214–16). As a result, epistemic bubbles are not necessarily inherently epistemically problematic even if they contain a lack of diverse viewpoints.

A second initial reason for suspecting that epistemic bubbles are epistemically problematic is that they lack independence. A commitment to independence says that "the opinions of others have epistemic force only to the extent that they are independent of one another," and views are independent of one another when and only when they are formed on the basis of a variety of evidence and/or in light of different background beliefs and filtering mechanisms (Lackey 2021: 209). Since epistemic bubbles are social epistemic structures in which the same accepted viewpoints are regularly repeated and

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Also, see Battaly (2018) for an argument as to why closed-mindedness – which Battaly defines as an "unwillingness or inability to engage seriously with relevant intellectual options" – can be an epistemic virtue in certain "hostile environments."

[11]Fantl (2021: 8–10); consider Fantl (2018: 27–48) for additional defense of forward-looking dogmatism and the notion that one should not always be open-minded.

[12]Some examples include Bernecker (2021), Lackey (2021: 214–16), and Millar (2021).

reinforced, one might think that the opinions expressed within them lack epistemic force because they lack a significant enough amount of independence from one another. Moreover, one might think that epistemic bubbles are particularly problematic because the agents within them are ignorant of the lack of independence between their opinions, and thereby liable to mistake the amount of epistemic force behind the evidence they hold for their beliefs, in troubling ways (Lackey 2021: 208–9).

In response to this concern, Lackey argues that epistemic bubbles do not actually lack sufficient independence. This is because the views of the agents within epistemic bubbles are either not non-independent of one another or non-independent in a way that is not actually problematic. When there is non-independence, the odds that one agent will accept another agent's view *p*, provided that *p* is false, is equal to the odds that they will accept *p*, provided that *p* is true. But, Lackey claims, the odds are *not* usually equal for the agents within epistemic bubbles, for "as consumers of information," most of us are not "literally like the blind followers of a guru" (Lackey 2021: 212). Whenever we decide to accept and/or re-share what we read from particular news sources, we tend to do so with some degree of *autonomous dependence*. That is to say that we accept and/or re-share what we read from particular news sources only (i) as we take on responsibility for expressing the opinions we re-share as our own; (ii) as we look out for defeaters of that testimony or testimonial source; and (iii) in light of our beliefs about the "reliability and trustworthiness of the testimonial source" (Lackey 2021: 209). And any view shared with some degree of autonomous dependence has at least some amount of epistemic force behind it. So, viewpoints repeatedly shared from particular sources within an epistemic bubble can still have epistemic force, if they are shared with some degree of autonomous dependence. On the assumption that the members of epistemic bubbles accept and/or re-share particular sources of information with some degree of autonomous dependence, then, some amount of epistemic force attaches to their re-expressions of a viewpoint or source.

Furthermore, Lackey argues that even when there is non-independence between an individual and one particular source of information, we can go on to ask why and how that individual came to trust that source. If they came to trust it discriminately, with some degree of autonomous dependence, and previously verified that source as reliable and trustworthy, then some epistemic force remains behind their re-expression of viewpoints from that particular source. As long as the viewpoints repeatedly expressed have some epistemic force behind them, we cannot say that they lack independence in a way that is necessarily problematic. Epistemic bubbles, thus, do not exhibit a troubling lack of independence, and nothing about epistemic bubbles as social epistemic structures requires or entails that they will exhibit non-independence in a way that is epistemically worrisome. The individual opinions of the members of epistemic bubbles most likely have epistemic force, and as a consequence, we cannot say that epistemic bubbles are uniquely problematic due to a lack of independence, or to be avoided because of it (Lackey 2021: 208–14).

If the previous considerations are correct, and the reasons – lack of diversity and lack of independence – for initially suspecting that epistemic bubbles are epistemically problematic are not genuine reasons for thinking that epistemic bubbles are inherently epistemically problematic, then why is it that we find ourselves so concerned about these phenomena in the first place? If epistemic bubbles are not necessarily epistemically problematic, then why do we initially assume that there is something epistemically worrisome about them? Defenders of the claim that epistemic bubbles are not inherently epistemically problematic argue that the suspicion that something is troublesome

about epistemic bubbles really has to do with the particular *content* of some epistemic bubbles. Certain epistemic bubbles, they suggest, operate as enclosed social epistemic structures in which *false* views are regularly repeated and reinforced while dissenting and true views are either absent or ignored. These, in our terms, are epistemically problematic$_o$, or bad$_o$, epistemic bubbles. The defenders of (some) good epistemic bubbles suggest that bad$_o$ epistemic bubbles are not truth-conducive and that these bubbles, in particular, are the kinds of epistemic bubbles that give rise to our concerns. Other epistemic bubbles, they suggest, operate as bounded social epistemic structures in which endorsed *and true* views are repeated and reinforced repeatedly while dissenting views are either absent or ignored. Recall that these are *good$_o$* epistemic bubbles, in our terms. Unlike bad$_o$ epistemic bubbles, the claim is, good$_o$ epistemic bubbles are not epistemically worrisome because they are not liable to steer those who inhabit them away from the truth.

The supposed result of these argumentative steps is this: if we inhabit a good$_o$ epistemic bubble, then we have no epistemic reason to try to leave it. For the purposes of acquiring true beliefs and not acquiring false beliefs, it may be in our best interest epistemically to stay put. From this, the conclusion is (more or less explicitly) drawn that we *rationally ought* to stay put in good$_o$ epistemic bubbles, but not bad$_o$ ones. It is only bad$_o$ epistemic bubbles that do not help us acquire true beliefs and avoid false ones, so we rationally ought to exit only bad$_o$ epistemic bubbles, if we occupy them.

Nevertheless, a further question arises. An epistemic bubble may happen to be truth-conducive, i.e. a good$_o$ epistemic bubble, but does the mere fact that an epistemic bubble is a good$_o$ epistemic bubble necessarily imply that it would be *rational* to stay in it? Not necessarily. For even if an epistemic bubble is good$_o$, it may not be good$_p$. And, as I have suggested, it is whether an epistemic bubble is good$_p$ – that is, whether we are *justified in believing* that it is good$_o$ – that determines whether it is rational to stay in it. In order to rationally stay put in an epistemic bubble, it doesn't suffice that it is good$_o$; rather, we must also be *justified in believing* that it is good$_o$.

To be clear: the defenders of (some) good epistemic bubbles could reasonably conclude directly from their distinction between good$_o$ and bad$_o$ epistemic bubbles that epistemic bubbles are not inherently epistemically problematic$_o$. But this isn't all that they conclude. They also assume that it would be rational to stay put in a good$_o$ epistemic bubble and use this assumption to implicate that one only rationally ought to exit bad$_o$ epistemic bubbles. In doing so, they slide into the further claim that there are some epistemic bubbles that are good$_p$. Consequently, the questions of whether there are any good$_p$ epistemic bubbles and of whether or not epistemic bubbles are inherently epistemically problematic$_p$ remain pertinent to their case. The upshot here is that – even if the defenders of (some) epistemic bubbles are correct to distinguish between good$_o$ and bad$_o$ epistemic bubbles, and to contend that epistemic bubbles are not inherently epistemically problematic$_o$ – their conclusion does not yet follow, for this does not demonstrate that it would be rational to stay put in good$_o$ epistemic bubbles. My aim in the sections remaining is to show why epistemic bubbles are inherently epistemically problematic$_p$, even if in theory they may not be inherently epistemically problematic$_o$.

3. Why to Escape

Now, is it ever rational to believe that an epistemic bubble is good$_o$? Suppose you realize that you are in an epistemic bubble. Upon this realization, you start to question whether you are in a good$_o$ epistemic bubble or a bad$_o$ one. You also accept that, if you can

rationally conclude that it is a good$_o$ one, you are fine to stay put, and if you can rationally conclude that it is a bad$_o$ one, you should try to escape.[13] What are the ways you could go about answering the question of which type of epistemic bubble – good$_o$ or bad$_o$ – you occupy? You could start by considering how you ended up in such a bubble. If you arrived in it by way of careful reasoning over time – e.g. identifying scientific experts and testifiers who are epistemically reliable – then you can verify that you have some reason for thinking you occupy a good$_o$ epistemic bubble by first re-examining how and why you got there. Then, you can use this evidence to consider whether you are *still* justified in being in the bubble. Yet notice how this two-step verification process involves taking into account what it was like to enter the bubble *from outside of it*. It involves seriously questioning if and why you are justified in accepting the opinions endorsed within your bubble, while ignoring dissenting views (e.g. that the scientific experts and testifiers in your epistemic bubble are unreliable). Thus, verifying if and why you are justified in this way requires honestly reconsidering whether and why the opinions endorsed within your epistemic bubble are true *and* seriously reconsidering whether and why dissenting views are not.[14] Seriously reconsidering whether and why *dissenting views* to the opinions endorsed within your epistemic bubble are not true, however, requires that you not ignore those dissenting views. Since an epistemic bubble is a bounded social epistemic structure in which those dissenting views are either absent or ignored, this involves leaving the bounds of your bubble. It involves altering the kinds of sources from which you aim to receive opinions or altering your enclosed epistemic community, i.e. altering (a) or (b). As a result, in attempting to verify that you occupy a good epistemic bubble by re-considering how you ended up in it, you end up *exiting it*.

On the other hand, if you did not arrive in your epistemic bubble as the result of careful reasoning over time but instead as the result of sheer luck, you will need to evaluate whether or not you have surrounded yourself with an epistemically reliable community, one that endorses true opinions. But to verify that your epistemic community endorses true opinions, you will need to contrast your social epistemic structure with what lies outside of it. To accomplish this, once again, you must leave your epistemic bubble. You must alter your enclosed epistemic community and/or your news sources. Alternatively, rather than consider how you ended up in such a bubble, you could try to figure out which kind of epistemic bubble you occupy by looking at how your epistemic bubble contrasts with other ones. Yet in order to contrast your epistemic bubble with others, you will need to see what other epistemic bubbles are like, and to see what others are like, again, you must exit your own bubble. Hence, regardless of your

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[13]As mentioned above, an epistemic bubble need only be more truth-conducive than other epistemic bubbles in order to be considered good$_o$ in a relative sense. Relatively less truth-conducive epistemic bubbles in these cases are considered bad$_o$. The argument that follows thus applies to cases in which epistemic bubbles are perfectly truth-conducive versus those that are not perfectly truth-conducive as well as to cases in which the epistemic bubbles under consideration are more or less truth-conducive with respect to one another.

[14]I emphasize verifying the particular *opinions* endorsed within your bubble because one does not need to question, ignore or reject all of one's prior beliefs or background assumptions in order to verify that one is justified in believing that one's epistemic bubble is good$_o$. Calling into question the particular views endorsed, repeated and reinforced within one's own epistemic bubble – and thus considering dissenting opinions to those views – suffices in order to exit one's epistemic bubble. For further elaboration on this point, see §1 where I discuss what is involved in leaving or exiting one's epistemic bubble.

approach towards discovering which type of epistemic bubble you occupy, you must leave your epistemic bubble.

At this point, one might draw attention to the fact that I have only been considering whether or not it would be rational to take an epistemic bubble to be $good_o$ from the perspective of those who find themselves in epistemic bubbles. While I have shown that we are never justified in believing that an epistemic bubble is $good_o$ from the perspective of someone inside of it, I have not ruled out the possibility that it is sometimes rational to take an epistemic bubble to be $good_o$ from the perspective of someone outside of it. Since what we want to know is broadly when, if ever, it would be rational for an epistemic agent to take an epistemic bubble to be $good_o$ and to enter it, one might think that we also need to carefully consider whether it is ever rational to take an epistemic bubble to be $good_o$ from the perspective of outside of it.

Nevertheless, posing the question from the perspective of someone outside of an epistemic bubble simply shifts the bump under the rug.

To illustrate, suppose we happen across an epistemic bubble, but we do not inhabit it. We wonder whether or not it is a $good_o$ epistemic bubble and decide to check to see which opinions the epistemic bubble endorses and which dissenting views it excludes or ignores. What we discover is that the bubble endorses the reality of anthropogenic climate change and opposes its denial. Because the epistemic bubble only endorses true opinions, one might think that we have discovered not only a $good_o$ epistemic bubble, but a $good_p$ epistemic bubble such that we would be rationally justified in staying put in it. But are we rationally justified in staying put in this bubble? The answer is no, for two reasons.

The first reason is that epistemic bubbles are not static social epistemic structures – they are dynamic. It is always possible that, even from the perspective of outside the epistemic bubble, we could check back in on the epistemic bubble at a later date and notice a troubling change. For example, the epistemic bubble that we initially identified as being $good_o$ may continue to endorse the reality of anthropogenic climate change and exclude perspectives to its denial, but over time, it could also start to endorse the view that all people who live in rural Southern Appalachia are uneducated and bigoted. While it is true that anthropogenic climate change is real, it is false that all residents of rural Southern Appalachia are uneducated bigots. So, even though we initially concluded that it was a $good_o$ epistemic bubble, we have no way to guarantee that it would remain that way such that we would be rationally justified in staying put in that epistemic bubble. Second, and more importantly, suppose we were to enter the epistemic bubble. Then as soon as we were to enter into it, we would face the epistemic problem of verifying that our bubble remains a $good_o$ epistemic bubble from the perspective of someone inside it. This is an epistemic problem pertaining to the structure, and not merely the content, of epistemic bubbles, for the only way to verify that the bubble we inhabit remains a $good_o$ epistemic bubble is to exit it.[15]

In the end, there is no perspective from which we can identify $good_o$ epistemic bubbles such that it would be rational to stay put in them. Whether we search for $good_o$ epistemic bubbles from the perspective of inside or outside these social epistemic structures, we cannot be justified in believing that we have found a $good_o$ epistemic bubble. It follows that it is never rational to take an epistemic bubble to be $good_o$ such that it

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[15] I am conceding here that it could be rational to take *part* of an epistemic bubble to be $good_o$, i.e. an epistemic bubble at some brief moment in time. However, epistemic bubbles are by definition phenomena that extend across time, so taking an epistemic bubble to be $good_o$ at some minute time slice, isn't the same as taking an epistemic bubble itself to be $good_o$.

would be rational to stay put in it. There are, therefore, no good$_p$ epistemic bubbles. Epistemic bubbles are inherently epistemically problematic$_p$, and it cannot be rational to stay put in them.

4. Objections, Replies and Closing Thoughts

A number of objections to my claim that epistemic bubbles are inherently epistemically problematic$_p$ require consideration. The first stems from a key motivation behind the arguments for why epistemic bubbles are not inherently epistemically problematic: the prevalence of fake news.[16] The contemporary world appears to be saturated with false claims disguised as true ones, so we may still worry that leaving our epistemic bubble would in the end be less conducive to achieving our epistemic goal than staying put. Possibly, the worry goes, my epistemic bubble exposes me to less fake news than would the social epistemic structure that lies outside of it. Perhaps I can avoid being deceived into acquiring false beliefs, and hence *better* acquire true beliefs and avoid acquiring false ones, by staying put in my epistemic bubble (Fantl 2021). However, this worry is misleading, for given the arguments I have made above, the only way to be *justified in believing* that leaving our epistemic bubble would actually render us worse off epistemically would be to leave it and see. The worry, too, conceals the fact that fake news could very well arise out of our own epistemic bubble, in which case we would be ill-equipped to refute it due to a lack of exposure to dissenting viewpoints.

In response to this first worry, also note how my argument in §3 serves to bring the initial concerns about epistemic bubbles – their lack of diversity and independence – back into the picture. For how can we know that the epistemic bubble we are considering, from within or without, contains the right kinds or amount of diversity needed for distinguishing between true and false, not to mention potentially fake, viewpoints? It may be true that the mere presence of a diversity of viewpoints is insufficient for making a social epistemic structure conducive to the truth, but surely some level of diversity is needed to distinguish the truth of anthropogenic climate change from its falsity. Limiting one's sources of information from additional points of view may at times have epistemic benefits, but even so, one would need to verify that inhabiting a particular epistemic bubble qualifies as an actual case in which limiting one's sources would have epistemic benefits, before one could be justified in staying put in that bubble despite of its lack of diverse viewpoints. Yet demonstrating that an epistemic bubble has this feature would require considering whether the kinds and amounts of diversity contained in the bubble, versus those left out of it, are the correct ones to be including versus excluding. Thus, in

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[16]There is substantial debate over how to best define "fake news," but the arguments for why echo chambers are not epistemically problematic, and why we may be rationally permitted to stay in them, seem to at least have this minimal definition in mind: Fake news is news that is presented as true but that is ultimately misleading and largely false. The desire to steer clear of even this minimal sense of fake news clearly serves to motivate the suspicion that one could be justified in staying within the bounds of their epistemic bubble for the sake of avoiding acquiring false beliefs that would appear as true ones.

Beyond the minimal sense of "fake news," Fantl (2021: 1) explicitly adopts Rini's definition of fake news. According to Rini, "[a] fake news story is one that purports to describe events in the real world, typically by mimicking the conventions of traditional media reportage, yet is known by its creators to be significantly false, and is transmitted with the two goals of being widely re-transmitted and of deceiving at least some of its audience." For more on Rini's view, see Rini (2017: 43–5). Many, however, disagree with Rini's claim that fake news must be known by its producers to be false or sent out to intentionally deceive. For an alternative to Rini, see Grundmann (2020: 8).

order to be justified in believing that we have a sufficient diversity of viewpoints in a given epistemic bubble, we must exit the bubble under consideration.

The concern about epistemic bubbles lacking independence resurfaces as well. Although it could be the case that epistemic bubbles fail to exhibit *full* non-independence – such that the odds that one member of an epistemic bubble will accept another agent's false view is never *equal to* the odds that they will accept that agent's view if it is true – the *degree* of independence between views remains relevant. For how can we be justified in believing that the epistemic bubble we are considering, from within or without, contains the degree of independence – and hence epistemic force – needed for distinguishing the true opinions from the false ones (including fake news), as they arise from the epistemic bubble? Once again, to be justified in believing that any given epistemic bubble has a sufficient amount of independence, we need to remain outside of the epistemic bubble under consideration. As troubling as the prevalence of fake news may appear, remaining in our own epistemic bubbles is not the best method for avoiding it. Indeed, the only way to be justified in believing that it would be the best way to avoid it would be to leave our epistemic bubbles.

A second objection to my claim stems from the theoretical possibility that no falsehood ever arises from a particular epistemic bubble. If no falsehood ever comes to be endorsed by an epistemic bubble, then that bubble would be an example of a good$_o$ epistemic bubble. Provided that, in principle, there could be a good$_o$ epistemic bubble, why should we be concerned about finding good$_p$ ones? I have already addressed this concern above. But it is worth making more explicit why this objection falls flat. First, recall the epistemic goal that was driving us to distinguish between good$_o$ and bad$_o$ epistemic bubbles from the start, namely the goal of acquiring true beliefs and not acquiring false ones. If this is our goal as epistemic agents, then the initial reason why we should worry about whether we can be justified in believing that epistemic bubbles are good$_o$ or not is simply because, as responsible epistemic agents, we need to make sure that we inhabit social epistemic structures that help us achieve that goal. Second, the main reason we should be concerned about finding good$_p$ epistemic bubbles is because the way in which we rationally ought to respond to any given epistemic bubble directly depends on the kind of bubble that it is. If we find ourselves in an epistemic bubble, then, it would simply not be rational to refuse to check, to cross our fingers that we just so happen to occupy a good$_o$ epistemic bubble.

Furthermore, given the nature of real-world epistemic bubbles, and the fallibility of epistemic agents and social epistemic structures, it seems rather unlikely that we would ever just so happen to occupy a good$_o$ epistemic bubble. The epistemic bubbles we encounter in the contemporary world do not limit themselves to neatly bounded subject-matters. They include viewpoints about various domains of discourse and inquiry, morality, science, politics, religion, humor, economics, etc. Politically left-leaning or right-leaning epistemic bubbles in the contemporary United States, for instance, include opinions of endorsement on issues covering everything from climate change and economic policy to the moral status of abortion and same-sex unions. *These* are the kinds of epistemic bubbles we must, in practice, decide whether or not to inhabit.[17] And yet, it is quite unlikely that these bubbles are correct about every opinion they endorse.[18] Odds are, real-world epistemic bubbles are not good$_o$ epistemic bubbles.

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[17]I credit Ripley Stroud with this observation.

[18]Thanks to Alex Worsnip for suggesting this final point. For more on why epistemic bubbles are unlikely to be correct about every opinion they endorse, see Joshi's (2020: 36–61) argument for why the

Hence, good_o epistemic bubbles may in principle be possible, but given that their existence is incredibly unlikely, the responsible and rational epistemic agent cannot simply assume that they inhabit one of them. The risk of assuming, and not taking care to verify, that an epistemic bubble is a good_o one, only to be mistaken in that assumption, is not a risk the responsible epistemic agent ought to take, or a risk that the rational agent can take. For these reasons, we care about the existence of good_p epistemic bubbles and not merely good_o ones.

A final objection to my account is that epistemic bubbles, and hence echo chambers, can at times be the collective result of behaviors that lead to belief polarization but are nevertheless *rational* at the individual level. In this way, the argument goes, it may be rational under certain non-ideal conditions for individuals to stay put in epistemic bubbles (Begby 2022). One might extend this line of thought to suggest that the particular sense in which I have shown that all epistemic bubbles are inherently epistemically problematic_p does not apply in our social context. Given our non-ideal social conditions, one could argue, it can be rational for individuals to remain in epistemic bubbles, since these phenomena are merely the social product of individuals behaving rationally in our non- ideal context. Certainly, if it is true that epistemic bubbles can be the collective outcome of individuals behaving rationally under non-ideal conditions, then my argument could fail to apply in the context we care most about: our non-ideal world. But it is not clear that epistemic bubbles can be the collective result of individuals behaving rationally, even under non-ideal conditions.

The best case in support of this line of thought is that one should "be more inclined" to designate as one's epistemic peers precisely those "who tend to share [one's] judgment on what [one] take[s] to be issues of importance," while one should be less inclined to designate as one's epistemic peers those who do *not* tend to share one's judgments on those particular issues (Begby 2022: 9). Then, assuming that one does as one purportedly ought to do in designating one's epistemic peers, one should become *more* confident in the judgments one shares with their epistemic peer group on the basis of one's agreement concerning important issues with one's epistemic peers. And one should become less confident in the opposing views supported by those who are not one's peers on the basis of one's disagreement on those issues with individuals who are not one's designated epistemic peers. When many individuals designate their epistemic peers in this manner, which then leads to an increase in confidence in their own judgments, epistemic bubbles arise out of individuals behaving rationally (Begby 2022: 1–12).

Nonetheless, there are several issues with this line of thought. While it is true that we often *do* tend to designate as our epistemic peers those who are already disposed to agree with us on important issues, it is far from clear that this is necessarily what we *should* do as rational agents. Many individuals designate those who are already disposed to agree with them as epistemic peers simply because those who are disposed to agree with them happen to be a part of the community in which they were raised. But they do this *while having evidence that* other communities exist and systematically disagree with their own community. Given this evidence, it would appear that these individuals lack sufficient reason to designate as epistemic peers *only* those who are likely to share their views. Thus, even though many tend to behave in this way, further argument is needed to establish that it is rational. Moreover, it would be out of place for an individual to

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polarized clusters of political opinion in the contemporary United States raise an epistemological problem for those on both the left and the right.

designate those who are inclined to agree with them on *some* set of issues at a particular point in time, as their epistemic peers on *all* sets of issues in the future. For one might have sufficient reason for designating an individual as one's epistemic peer with respect to their current judgments on urban crime rates, but not have such reason for designating them in the future as one's epistemic peer with respect to their judgments on international relations. And yet this kind of *general* and *long-term* designation at the individual level of some but not others as one's epistemic peers about issues of importance is the kind of epistemic peer designation that would actually result in the creation of an epistemic bubble at the social level in our contemporary world. This kind of general and long-term designation of one's epistemic peers is, at least, not perfectly rational and, at most, irrational. Therefore, unless there is another way that individuals can behave rationally under non-ideal conditions such that their behavior collectively results in epistemic bubbles, epistemic bubbles remain inherently epistemically problematic$_p$, even within our non-ideal circumstances.

I have argued that epistemic bubbles are epistemically problematic$_p$ such that one rationally ought to exit these structures, if one is justified in believing that one is in them. Although it may be a useful taxonomy to distinguish between good$_o$ and bad$_o$ epistemic bubbles, an epistemic problem arises when we actually try to determine whether or not a given epistemic bubble is good$_o$ or bad$_o$. The problem is that it is never rational to take an epistemic bubble to be good$_o$, and in order to be justified in believing an epistemic bubble is good$_o$, we would need to leave it. Hence, there are no good$_p$ epistemic bubbles, and epistemic bubbles are inherently epistemically problematic$_p$. If we find ourselves in an epistemic bubble, we rationally ought to leave it.[19]

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