

How to make a villain: Rachel Carson and the politics of anti-environmentalism

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This article explores the evolution of anti-Carson rhetoric. It argues that this rhetoric has evolved significantly over the past fifty years. Early critics of *Silent Spring* were primarily concerned with defending their vision of science from what they perceived as the threat embodied in Carson's ecological perspective. By the early twenty-first century, her main detractors were now neoliberal advocates of unfettered markets, who perceived in Carson a major reason for what they saw as related evils: environmentalism and an expanded state. These two sets of adversaries used distinct rhetorical strategies, corresponding to their different interests as well as to changing historical context. Across both eras, however, the perceived utility of Carson as an anti-heroine persisted.

In fact, today millions of people around the world suffer the painful and often deadly effects of malaria because one person sounded a false alarm. That person is Rachel Carson, author of the 1962 best selling book *Silent Spring*.¹

– RachelWasWrong.org, Competitive Enterprise Institute

Critics of Rachel Carson are often difficult to take seriously. This is not because *Silent Spring* is a perfect book, but rather because so many of her adversaries have insisted on making outlandish and disingenuous assertions about it. Reviewing the book in October of 1962, for example, William Darby – then the chair of the Biochemistry Department at Vanderbilt University – suggested that the underlying philosophy of the book might help augur ‘the end of all human progress’.² Darby was not an outlier among critical reviewers of *Silent Spring*. Upon its publication, Carson's book attracted swift and vociferous denunciation from scientists connected with or sympathetic to the pesticide industry; much of it was both alarmist and *ad hominem*. Remarkably, in the early twenty-first century, a new generation of Carson critics has managed to equal their predecessors in the vitriol of their commentary on *Silent Spring*. The Competitive Enterprise Institute (CEI), an organization with a history of

antipathy to environmentalism and government regulation, argues that Carson is the ‘one person’ who ‘sounded a false alarm’ enabling the suffering of millions. The CEI enjoys as much company in the early twenty-first century as Darby did in the early 1960s. Prominent conservative voices such as the talk show host Rush Limbaugh, Oklahoma Senator Tom Coburn, and the late novelist Michael Crichton have all issued severe and inflammatory diatribes against Carson and the environmental movement she has come to represent.³



Rachel Carson, United States
Fish and Wildlife Service photograph.

Excellent scholarly analysis exists concerning extremist rhetoric about Rachel Carson. For the earlier period, Linda Lear and Maril Hazlett – among many others – have documented the breadth and influence of anti-Carson rhetoric, its gendered nature, industrial apologetics and Cold War overtones. Fewer scholars have tackled the later period. However, Naomi Oreskes and Erik M. Conway have shown how ‘the revisionist attack on Rachel Carson’ is but the latest chapter in a long history of Cold War inspired anti-environmentalism, as well as an exemplar of how free market fundamentalists deny science they find inconvenient.⁴ I am in virtually complete agreement with all of these scholars. However, I believe that there remains untapped potential in looking at the ways that Rachel Carson has been constructed as a villain. We have become so accustomed to contrasting anti-Carson rhetoric with pro-Carson constructions that we may have missed significant differences among her detractors. Anti-Carson rhetoric is interesting for more than what it lacks – that is, for more than its rejection of *Silent Spring*. In fact, opposition to *Silent Spring* is a broad and multi-faceted phenomenon. One difference – touched on only lightly in this essay – is

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¹ ‘Dangerous Legacy’, <http://rachelwaswrong.org/>.

² William Darby, ‘Silence, Miss Carson!’ *Chemical and Engineering News* 40 (1 October 1962): 60–62. Quoted in Michael B. Smith, ‘“Silence Miss Carson!” Science, Gender, and the Reception of *Silent Spring*’, *Feminist Studies* 27, no. 3 (2001): 733–52, on 738. The title of this review was later changed to ‘A Scientist Looks at *Silent Spring*’. See Linda Lear, *Rachel Carson: Witness for Nature* (New York: Henry Holt, 1997), 574.

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³ On Limbaugh and Crichton, see Naomi Oreskes and Erik M. Conway. *Merchants of Doubt: How a Handful of Scientists Obscured the Truth on Issues from Tobacco Smoke to Global Warming* (New York: Bloomsbury Press, 2010), 232–233. On Coburn, see ‘Dr. Coburn Stands for Science – Rachel Carson and the Death of Millions’, on official website of Senator Coburn, <http://www.coburn.senate.gov/public/index.cfm/home>.

⁴ Oreskes & Conway, *Merchants of Doubt*, chapter 7.

the distinction between moderate and radical critiques of Carson. While pro-pesticide advocates such as I.L. Baldwin (1962) and Tina Rosenberg (2004) were prominent critics of the anti-DDT message in *Silent Spring*, their philosophies have as many differences as similarities with their more radical counterparts. A second difference – the focus of my argument – is chronological. Carson's detractors in the two eras examined in this article had sometimes similar but identifiably distinct aims. Her first critics were mostly bothered by the implications of *Silent Spring* for science, both its philosophical underpinnings and institutional place. Their successors focused on the ramifications of her work for free market advocacy. Both correctly identified the high stakes surrounding the questions Carson raised. But since she left the most radical of those implications implicit rather than explicit, each group had to radicalize Carson's message in order to make their own points. And they did so in surprisingly different ways.

The radical Rachel Carson?

In 1962, Rachel Carson – already a highly regarded nature writer, primarily known for three bestselling books on the sea – published what would become her most controversial book.⁵ *Silent Spring* was a sensation: a bestseller, a Book-of-the-Month club selection, a catalyst for high level policy review, the subject of a widely watched *CBS Reports* television program, and a text often seen as having launched the modern environmental movement. In the book, Carson aimed to demonstrate that chemical pesticides – most prominently DDT – carried enormous and uncertain risks for both the environment and for public health.⁶ Her argument drew the ire of the pesticide industry – along with that of many of the scientists who relied on that industry for research funding. These groups sought to discredit both Carson and her book, drawing significant additional attention to both. Quite quickly, debates over pesticides grew to encompass broad issues about expertise, ecology and policy. *Silent Spring* challenged a number of comfortable assumptions: that existing regulatory structures were sufficient to safeguard public health; that technical experts could be trusted to understand the consequences of their research; that technological advance always carried more benefit than harm; and that humans were largely exempt from the consequences of ecological change. These were high stakes, and were recognized as such by both Carson and her critics. Reckoning with the legacy of *Silent Spring*, therefore, is not confined to considering the fate of DDT and related chemical products. It is also a matter of tracing the usage of the book – sometimes sincere, sometimes disingenuous – amidst cultural negotiations over the proper place of science in modern society.

Silent Spring has a radical edge. It can be read as a fundamental challenge to the cultural and institutional norms of Cold War science. But this is not a necessary reading, and at least one scholar has made a compelling

argument that Carson de-emphasized the radical implications of her critique. Yaakov Garb compares *Silent Spring* to Murray Bookchin's *Our Synthetic Environment*, published earlier in 1962. Bookchin identified many of the same hazards that Carson did, but chose also to make a strong critique of the inadequacy of contemporary capitalism. Carson, by contrast, hinted at this economic critique but ultimately allowed her readers to avoid confronting it. Garb explains:

Silent Spring opened a space that might have been occupied by an attempt to answer the difficult and messy political and economic questions of how pest control might be guided by biological knowledge and democratically determined priorities, rather than the logic of capital accumulation. Instead, this space was more palatably filled with the hopeful ideal of biological control as Yankee ingenuity in service of a pastoral ideal.⁷

In Garb's reading, the contemporary norms of pesticide production and use were so intimately connected to the political and economic realities of a capitalist society that challenging one led inexorably to questioning the other. Carson, however, framed *Silent Spring* in a way that obscured this. By focusing on the idea of 'biological control' as a substitute for an approach based in chemistry, she made it possible to deplore the immediate issue of pesticides without demanding focus on the interwoven economic and scientific structures that had enabled the ecological damage to occur in the first place. This was a consequential choice. It underlay the phenomenal success of *Silent Spring*, but may also have prompted a public discourse in which the broader implications of the book became marginalized.

If Garb is correct, it suggests that there are two argumentative threads within *Silent Spring*. One is centered on DDT, and the other on an ecologically minded critique of 'the logic of capital accumulation' and the reductive science used to support it. From the vantage point of intellectual history, these two arguments are closely related – so closely that any separation between them may be artificial. But it is an artificiality that has its roots in Carson's strategic choices, and it shaped the discourse of her adversaries in two important ways. The first is that critics could not assume that the radicalism of her book – that is, the Bookchin-style political and economic implications – would be widely understood. They therefore had to argue for her radicalism – a task for which many reviewers showed persistent zeal. The second is that they had to choose which thematic thread of *Silent Spring* to focus on. Carson's perhaps artificial separation between the 'DDT' and 'ecology' arguments facilitated the act of critics – indeed, commentators or image-makers of any political leaning – in appropriating the narrative most useful to them. Certainly, nothing in *Silent Spring* compels this narrative separation. But the book presents the possibility that readers might be able to emphasize one and de-emphasize

⁵ Carson's first three books were *Under the Sea-Wind* (1941), *The Sea Around Us* (1951), and *The Edge of the Sea* (1955). Her second and third books were bestsellers upon original publication; *Under the Sea-Wind* became one upon reissue in 1952.

⁶ DDT is mentioned on 54 pages in *Silent Spring*, over three times as frequently as the next most commonly referenced pesticide. Steve Maguire, 'Contested Icons: Rachel Carson and DDT', in Lisa H. Sideris and Kathleen Dean Moore, eds. *Rachel Carson: Legacy and Challenge* (Albany, NY: State University of New York Press, 2008), 198.

⁷ Yaakov Garb, 'Change and Continuity in Environmental World-View: The Politics of Nature in Rachel Carson's *Silent Spring*', in David Macauley, ed., *Minding Nature: The Philosophers of Ecology* (New York, NY: Guilford Press, 1996), 240–241.

another, if necessary to make particular arguments. Carson's critics in different eras would do just that.

Beyond DDT

The legion of critics who first attacked *Silent Spring* quickly rose to meet the ecological challenge it offered. They defended DDT by making it emblematic of technological progress and rising standards of living, and suggested that Carson's condemnation of it was beholden to a philosophy antithetical to the modern world. Robert White-Stevens was perhaps the most visible critic of *Silent Spring*, as he and Carson appeared as antagonists in a widely watched April 1963 episode of *CBS Reports* on pesticides.⁸ He was also one of the most explicit defenders of the assumptions about science that Carson attacked. On the closing page of *Silent Spring*, Carson wrote that, "The "control of nature" is a phrase conceived in arrogance, born of the Neanderthal age of biology and philosophy, when it was supposed that nature exists for the convenience of man."⁹ Her words contain a succinct statement of an important ecological principle: humans being are part of nature, and their attempts to control or transcend it are futile. Her words are striking for their direct contrast with a point of view advocated in print by White-Stevens. He wrote that mankind 'has crossed his Rubicon and must advance into the future armed with the reason and tools of his sciences, and in so doing will doubtless have to contest the very laws and powers of Nature herself.'¹⁰ White-Stevens took issue with the ecological implications of Carson's argument; this was a direct and unapologetic paean to scientific attempts at controlling nature. To be sure, he also contested Carson's claims about DDT. But he did so without a great deal of specificity, relying instead on strident references to the general benefits of pesticides without spending significant time on a rebuttal targeted to her precise points. In this particular article, the absence of such specifics was perhaps attributable to his audience; the piece appeared in a specialized journal and was meant as a call-to-arms for the pro-pesticide forces. But it was characteristic of anti-Carson rhetoric more generally, professional or public, in the early 1960s.

Another critical review of *Silent Spring* appeared in the *Saturday Evening Post* on 28 September 1963, a year after the book's publication. The reviewer, Edwin Diamond, may have harbored personal as well as intellectual reasons for disliking the book; he had briefly worked as a collaborator with Carson, and had left on less than friendly terms.¹¹ His critique was harsh and personal. He termed her arguments 'more emotional than accurate', and contended that they worked largely by stirring 'the latent demons of paranoia that many men and women must fight down all through their lives'.¹² Labeling Carson an emotional alarmist was

nothing new by 1963, and Diamond was one of many to place claims of her misplaced zeal alongside a challenge to the book's ecological message. He closed his review by asserting that, 'the pesticide 'problem' can be handled without going back to a dark age of plague and epidemic'.¹³ Just as White-Stevens had done, Diamond located Carson's critique of pesticide use as resting, not with recognition of interconnectedness in nature, but rather with irrational and alarmist insistence on returning to a pre-modern era of suffering and squalor. Similarly, Frederick J. Stare, a prominent nutritionist at the Harvard School of Public Health, advocated for pesticides by celebrating the triumphs of modern science. 'So far', he wrote, 'through the broad application of a brilliant technology which includes the wide use of agricultural chemicals, man has managed to stave off starvation, disease and social and political unrest in many parts of the world'.¹⁴ Stare went on to explicitly compare these well-off parts of the world to others that suffered those very ills because of their lack of such technology. Although he did challenge Carson on the facts of DDT – such as its toxicity to humans and the matter of whether its residues persist in stored fat – the emotional weight of his review was situated in an insistence that technological advance was the guarantor of health and safety in the modern world. Stare thus echoed the rhetorical strategy of both White-Stevens and Diamond, who situated their critiques of Carson in a challenge to the ecological notion that human beings cannot overcome nature.

As many scholars have noted, attacks on Carson were highly gendered, often contending that *Silent Spring* was emotional and irrational, not dispassionate and factual.¹⁵ One reviewer commented that the book reminded him 'of trying to win an argument with a woman. It can not be done'.¹⁶ Another critic wondered why a 'spinster' would be so concerned about the possible genetic ramifications of pesticides.¹⁷ These claims were not trivial; they functioned as ways of discrediting her science. 'The voices in the backlash', Maril Hazlett notes, 'argued that when Carson questioned pesticides, she revealed herself as a bad, misguided, unreliable woman – a powerful force of social disorder. This exclusively feminine brush also tainted anyone else who aligned with her ideas. Exploring Carson's ecological ideas meant inviting social chaos'.¹⁸ Hazlett's analysis lends support to the notion that contemporary critics cast the pesticide issue in ecological terms – a rhetorical move that later detractors would de-emphasize. There is a more than a hint of paternalism in the later critiques as well, as more recent critics have frequently assumed her to be emotional or irrational. Anti-Carson rhetoric focused on using her person as a means of delegitimizing her expertise, and gender has remained a primary strategy for doing so. But the personhood invoked

⁸ A good discussion of this program, and its ramifications for debates about Carson, can be found in Gary Kroll, 'The "Silent Springs" of Rachel Carson: Mass media and the origins of modern environmentalism', *Public Understanding of Science* 10, no. 4 (2001): 403–420.

⁹ Rachel Carson, *Silent Spring* (Boston: Houghton Mifflin, 1962), 297.

¹⁰ Robert H. White-Stevens, 'Communications Create Understanding', *Agricultural Chemicals* 17 (October 1962), in Thomas R. Dunlap, *DDT, Silent Spring, and the Rise of Environmentalism: Classic Texts* (Seattle, WA: University of Washington Press, 2008), 114.

¹¹ See Lear, *Witness for Nature*, 322–326.

¹² Edwin Diamond, 'The Myth of the "Pesticide Menace"', *Saturday Evening Post*, 28 Sept 1963, 16.

¹³ Diamond, 'Pesticide Menace', 18.

¹⁴ Frederick J. Stare, 'Some Comments on Silent Spring', *Nutrition Reviews* 21, no. 1, (January 1963): 1–4, on 1.

¹⁵ See, for example, Smith, 'Silence Miss Carson!', 741–2.

¹⁶ Lear *Witness for Nature*, 462.

¹⁷ Frank Graham, Jr., *Since Silent Spring* (Boston: Houghton Mifflin/Consumers Union edition, 1970) 49–50.

¹⁸ Maril Hazlett, "'Woman vs. Man vs. Bugs": Gender and Popular Ecology in Early Reactions to *Silent Spring*' 708.

in the 1960s was not simply that of an investigator who got her facts wrong. Instead, her critics assailed her as a woman who stood opposed to the whole edifice of modern science and the world it supported.

The ecological basis for early 1960s criticism can be seen even at moments when critics did address the pesticide issue directly. I.L. Baldwin's review in *Science* is one of the more widely cited attacks on *Silent Spring*. Though his review was not devoid of the paternalism and chiding to be found in similar documents, Baldwin used a rhetorically milder approach. In fact, at points in his article he issued statements that Carson may well have agreed with, seeming sincere in his belief that 'more careful and rigorous control' of pesticide use was necessary. He also conceded that the initial successes of pesticides may have led to 'careless' treatment of a technology with potentially 'serious hazards'.¹⁹ Baldwin, however, framed his acknowledgment of risk much differently than Carson had. He emphasized the great benefits of the chemical revolution 'that has most intimately affected every aspect of our daily life', from health to consumer goods to food production.²⁰ Rather than attempting to dismiss Carson's case as groundless, he argued that her criticism of DDT needed to be understood in the context of its benefits. In his view, though *Silent Spring* raised valid points, nothing it contained was sufficient to shake his faith in the power of technological advance to resolve persistent social ills. His critique of Carson, therefore, lay not in the facts she offered about DDT, but rather in the ecological framing she provided for those facts. Unlike White-Stevens, Diamond, or Stare, Baldwin did not attempt to turn Carson into a villain. But he shared with those more strident critics a sense of why Carson was wrong, and perhaps a little dangerous despite her good intentions. His worry – or, at least, the rhetorical expression it – was about ecology.

From science to economics

Arguments about ecology were attractive to Carson's detractors for the same reason that she tried to downplay them within the text itself: they were less broadly appealing than her case against DDT. To the extent that her adversaries could keep the conversation on the wonders of modern science, therefore, they could obscure the harm caused by a specific technological product. After a half-century of rising ecological awareness, however, her early twenty-first century critics enjoyed no such luxury. But they possessed one rhetorical advantage: a global resurgence of malaria. The extent to which DDT can actually help early twenty-first century efforts to contain malaria is disputed.²¹ Rhetorically speaking, however, the argument that its ban has caused the suffering and death of millions of people is a powerful one. The writers at RachelWasWrong.org placed a critique of her and of *Silent Spring* alongside snapshots of African children 'lost to malaria'.²²

¹⁹ I.L. Baldwin, 'Chemicals and Pests', *Science* 137, no 3535 (September 1962): 1042–1043, on 1042.

²⁰ Baldwin, 'Chemicals and Pests', 1042.

²¹ David Kinkela, *DDT and the American Century: Global Health, Environmental Politics, and the Pesticide that Changed the World* (Chapel Hill, NC: University of North Carolina Press, 2011), 182–189.

²² <http://rachelwaswrong.org/>.

Theirs is a particularly unsubtle approach, but not uniquely so; others critics have likened Carson and her legacy to Adolf Hitler and the Nazis.²³ And the undeniably real and tragic persistence of malaria in Africa (and elsewhere) has prompted calls for the renewed use of DDT. Because it seems such a reasonable proposition, it has proved quite useful in political advocacy outside of the public health arena as well as within it.

As with earlier criticism of *Silent Spring*, there is a clear split between moderate and radical approaches. Tina Rosenberg, for example, offered praise of Carson alongside her criticism. And others have focused on the purported utility of the pesticide without mentioning Carson at all.²⁴ The fact that extreme approaches are not the only ones available to DDT advocates should prompt us to ask questions about why the authors who did opt for severe rhetoric made that choice. Several scholars have convincingly argued Carson has become a convenient rhetorical symbol for neoliberal critics of state intervention. Naomi Oreskes and Erik Conway, for example, have noted the political utility of disparaging Carson:

In the demonizing of Rachel Carson, free marketers realized that if you could convince people that an example of successful government regulation wasn't, in fact, successful – that it was actually a mistake – you could strengthen the argument against regulation in general.²⁵

Oreskes and Conway contend that the goals of those who demonize Carson are broader than the promotion of DDT. Such political actors are primarily interested in DDT as a proxy through which to attack what they perceive as twin evils: environmentalism and state regulation. DDT scholar David Kinkela sounds a similar note, arguing that despite the fact that the pesticide may have a role to play in the contemporary world, 'critics of environmentalists are more concerned with fighting past battles, suggesting that environmental regulation was the singular cause of so much harm around the world'.²⁶ Like Oreskes and Conway, Kinkela explains the motivation of anti-Carson critics as being rooted in a desire to rewrite the past in the hopes of composing a different – and less regulated – future.

As a target for such political activism, Carson makes sense; she is associated both with the specific issue of pesticides as well as with broader themes about ecology. As a rhetorical symbol, therefore, she represents an effective bridge between the ostensible target of neoliberal activism (DDT) and the actual one (environmentalism). Nevertheless, it takes no small amount of rhetorical straining to use Carson for such purposes. Most obviously, those who wish to link Carson to the ban on DDT must overcome the fact that there were many other actors involved. In fact, Carson died in 1964, eight years before the Environmental Protection Agency (EPA) issued its decision. This is not a small matter. Pro-DDT rhetoric frequently uses phrases like 'Carson and her legacy' to collapse the time frame and

²³ Oreskes & Conway, *Merchants of Doubt*, 216.

²⁴ See, for example, Nicholas D. Kristof, 'It's Time To Spray DDT', *New York Times* 8 January 2005.

²⁵ Oreskes and Conway, *Merchants of Doubt*, 217.

²⁶ Kinkela, *DDT and the American Century*, 184.

thereby assign her responsibility for things that happened after her death. This phrase, from a letter by Oklahoma



Senator Tom Coburn

Senator Tom Coburn objecting to a plan to name a post office after the famous author, elides meaningful distinction between ‘Carson’ and ‘her legacy’.²⁷ For Coburn, it is as if the former inexorably caused the latter – and also as if her legacy were as easily dismissed as he contends the anti-DDT arguments can be. Other Carson detractors have created narratives that situate her as having caused the human suffering that took place after her death. The RachelWasWrong author(s), for example, wrote of Carson that, ‘her extreme rhetoric generated a culture of fear, resulting in policies [that] have deprived many people access to life-saving chemicals’.²⁸ In this rendition, a simple narrative was postulated. Carson’s ‘extreme rhetoric’ gave rise to ‘a culture of fear’, which then led directly to policy decisions that made ‘life-saving chemicals’ inaccessible. Carson is the villain in this story; she appears largely or even exclusively to blame for what the authors see as the detrimental consequences of curbing DDT use. And they are not alone. John Tierney, a *New York Times* science columnist, sounded a similar note in a 2007 article. He lamented that more dispassionate scientists like the pesticide University of Wisconsin professor I.L. Baldwin did not get a fairer hearing in their criticism of *Silent Spring* during and after 1962. ‘Scientists like him’, Tierney wrote, ‘were no match for Ms. Carson’s rhetoric. DDT became taboo even though there wasn’t evidence that it was carcinogenic’.²⁹ As with the CEI rhetoric, a complex story – amply detailed by historians such as Thomas Dunlap – is reduced to a short chain of causality with Carson at one end and a disastrous policy at the other, with little of note in between.³⁰

This time frame collapse is a staple of pro-DDT articles, even among authors who do not go out of their way to issue *ad hominem* attacks on Carson. In her 2004 *New York Times* article, Tina Rosenberg praised Carson on several points, but nevertheless assigned a great deal of rhetorical weight to *Silent Spring* in making her case. ‘DDT killed bald eagles because of its persistence in the environment’, she wrote. ‘“Silent Spring” is now killing African children because of its persistence in the public mind. Public opinion is so firm on DDT that even officials

who know it can be employed safely dare not recommend its use’.³¹ In this formulation, Carson is responsible for the ‘persistence in the public mind’ of an anti-DDT sentiment so intense that it kills African children despite the best efforts of knowledgeable experts. This is a remarkable contention. Certainly, looking to the posthumous ramifications of the work of influential activists is not illogical. After all, *Silent Spring* did have an enormous impact. But pro-DDT authors tend to conflate ‘Carson’ with other nomenclature – ‘her supporters’, or ‘her legacy’, or ‘the environmental movement’ – as if there were no relevant distinctions among them. This tendency is so powerful that even advocates who acknowledge the danger of doing so nevertheless fall prey to it. Roger Bate, a fellow at the American Enterprise Institute and board member of Africa Fighting Malaria, has been outspoken in his criticism of Carson and in his advocacy of DDT. On 26 May 2007, he wrote a letter to the *Washington Post* that sought to clarify his position about Carson. His letter reads, in part:

Carson is not to blame for the environmental zeal that emerged after she died in 1964, but she epitomizes the movement itself: long on emotion, occasional kernels of truth, but with wild and usually unscientific manipulation of data. Sen. Tom Coburn (R-Okla.) is right to block a resolution eulogizing Rachel Carson. She was a progenitor of the environmental movement, and she should share some of the blame, as well as the praise, for the impact it has had.³²

It is worth noting that the original article which prompted this clarification – by David A. Fahrenthold three days earlier – made him seem less bothered by Carson’s legacy, not more.³³ Bate’s letter was therefore prompted, not by a desire to correct criticism he felt had been unfairly imputed to him, but rather to ensure that his censure was placed on record. In this letter, as he has done elsewhere, Bate stated that Carson cannot be held accountable for actions taken in her name after 1964.³⁴ He then disregarded his own qualification, arguing for Carson’s intimate link to later environmentalism as both epitome and progenitor.

In addition to collapsing the chronology of environmentalism, critics also misrepresent *Silent Spring*. For one thing, Carson did not advocate a ban on DDT. She said this explicitly in her book, writing that, ‘It is not my contention that chemical insecticides must never be used’. Instead, she clarified that it was overuse and lack of prudence that most disturbed her: ‘I contend’, she writes, ‘that we have allowed these chemicals to be used with little or no advance investigation of their effect on soil, water, wildlife and man himself’.³⁵ Furthermore, Carson had

²⁷ Sen. Tom Coburn to Rep. Jason Altmire, 5 June 2007. On the website of Senator Coburn, <http://www.coburn.senate.gov/public/index.cfm/home>.

²⁸ ‘Dangerous Legacy’, ‘Dangerous Legacy’, <http://rachelwaswrong.org/>.

²⁹ John Tierney, ‘Fateful Voice of a Generation Still Drowns Out Real Science’, *New York Times*, 5 June 2007.

³⁰ Thomas R. Dunlap, *DDT: Scientists, Citizens, and Public Policy* (Princeton, N.J.: Princeton University Press, 1981). See also Dunlap, ed., *DDT, Silent Spring, and the Rise of Environmentalism*.

³¹ Tina Rosenberg, ‘What the World Needs Now Is DDT’, *New York Times Magazine*, 11 April 2004.

³² Roger Bate, ‘Rachel Carson’s Mixed Legacy’, *Washington Post* 26 May 2007.

³³ David A. Fahrenthold, ‘Rachel Carson Bill From Cardin on Hold; Okla. Senator Says She Stigmatized DDT’, *Washington Post*, 23 May 2007. Fahrenthold wrote that Bate ‘said it is difficult to lay all the blame on Carson, since she died so soon after her book was published’.

³⁴ Bate, ‘Rachel Carson’s Mixed Legacy’. He makes a similar point in Roger Bate, ‘DDT Works’ *Prospect*, 24 May 2008.

³⁵ Carson, *Silent Spring*, 12–13.

little to say about disease prevention. While Tina Rosenberg – one of the more moderate critics – took *Silent Spring* to task for this omission, others detractors ignored the fact that Carson was attempting to highlight ecological damage done by overuse of pesticides in arenas other than disease prevention (agriculture, for example). Whatever the merits of DDT as an anti-malaria agent, the bulk of Carson's case remains unaffected by the debate over its potential use in this regard. Even more striking is the manner in which critics sidestepped Carson's argument that insects readily develop resistance to DDT and other pesticides. Coburn hinted obliquely at this when noting that DDT was still effective 'despite some increase in resistance to the chemical developing among mosquitoes'.³⁶ DDT use was in fact on the wane before the EPA's 1972 decision; Oreskes and Conway write that, 'In the United States, DDT use peaked in 1959 – thirteen years before the ban – because it was already starting to fail'.³⁷ Criticism of Carson, therefore, posits an easy technological fix that oversimplifies not only the political history of banning DDT, but also the scientific story behind its potential utility. A final challenge to the Carson-as-villain reading of her life is the fact that the EPA's ban on DDT was never total. The ban did not apply to its use in disease prevention, and so those wishing to blame Carson must charge her with the collapse of a market for DDT, not only with the formation of policy.³⁸ All of these selective presentations of *Silent Spring* elevate and oversimplify Carson's role, and in so doing make her a more useful rhetorical symbol for critics.

Perhaps the most significant act of selective reading of Carson, however, is also the most subtle. *Silent Spring*, as Frank Graham wrote in his 1970 assessment of its legacy, 'is, essentially, an *ecological* book'.³⁹ Though its focus was on pesticides – as it was in Graham's own book, *Since Silent Spring* – it is easy to extrapolate from its lessons on that subject to other issues of environment and health. Despite the fact that she de-emphasized a broader political critique, Carson was certainly willing to recognize connections between pesticides and other environmental and health hazards. During the months between the June 1962 serialization of *Silent Spring* in the *New Yorker* and the September book publication, for example, the thalidomide controversy reached newspapers. Asked to comment, Carson said that 'It is all of a piece, thalidomide and pesticides – they represent our willingness to rush ahead and use something new without knowing what the results are going to be'.⁴⁰ For Carson, pesticides were a particularly compelling example of contemporary disregard for nature and for ecological principles. It was also one that she was particularly well suited to address. But she understood the broader implications – as did her audience. Linda Lear has written that her critics 'recognized *Silent Spring* for what it was: a fundamental social critique of a gospel of technological progress'.⁴¹ Supporters did this as well. 'Popular ecological ideas', Maril Hazlett

notes, 'provided the basis for a critique of power in postwar America'. Indeed, this possibility had accounted for much of the worry (and celebration) Carson's book caused in 1962.⁴²

But while both supporters and critics gravitated toward the ecological underpinnings of the book in the wake of its publication, this dimension is more restrained – explicitly, at least – in early twenty-first century criticism. In his novel *State of Fear*, Michael Crichton has one of his characters say that, 'banning DDT killed more people than Hitler'.⁴³ Crichton does not disguise his politics, quickly assigning blame to the environmental movement for this situation. But his emphasis on DDT stands in some contrast to earlier Carson critics, who tended to concentrate on general issues of the benefits of science and technology rather than moral arguments about specific products. Later, he includes a footnote directly about *Silent Spring*. The book, he writes, is 'about one-third right and two-thirds wrong'.⁴⁴ Crichton was careful to leave the numerical balance tipped against Carson. But even this admission reveals his rhetorical slight-of-hand: criticism of Carson focuses on some aspects of her book, and not others. Similarly, John Tierney writes that, 'A new generation is reading her book in school – and mostly learning the wrong lesson from it'.⁴⁵ In his rush to critique the anti-DDT lobby, Tierney did not have time to follow up on what might be the right, or at least a different, lesson *Silent Spring* has



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to teach. Like other critics, Tierney alluded to the non-DDT dimensions of Carson's book, but does not dwell on them – because doing so would not help his case. His demonization of Carson depended on the assumption that *Silent Spring* should be understood as a book centered on DDT, not a larger narrative about ecology. The specter of malaria suffering – with its undeniably tragic character – greatly facilitated this. Even when focus on DDT served as a proxy for a broader critique of environmentalism, attacks tended to concentrate on this more specific level.

³⁶ Coburn to Altmire, 5 June 2007.

³⁷ Oreskes & Conway, *Merchants of Doubt*, 224.

³⁸ Kinkela, *DDT and the American Century*, 159–160.

³⁹ Graham, Jr. *Since Silent Spring*, 53. Emphasis in the original.

⁴⁰ Lear, *Witness for Nature*, 412.

⁴¹ Lear, *Witness for Nature*, 429.

⁴² Hazlett, 'Woman vs. Man vs. Bugs', 705.

⁴³ Michael Crichton, *State of Fear* (New York: HarperCollins, 2004), 487.

⁴⁴ Crichton, *State of Fear*, 585.

⁴⁵ Tierney, 'Fateful Voice.'

A useful villain

Over the past fifty years, Carson's critics have employed a variety of tactics to combat her work. At a time when fear of radioactive fallout conditioned audiences to be fearful of chemical pesticides, critics frequently emphasized a more general, ecological argument.⁴⁶ Later, as ecological thinking became diffused to ever larger publics, use of this counter-argument diminished in favor of a focus on the DDT narrative. It is difficult to determine the extent to which these differences are real, or rhetorical. It seems likely that many of Carson's detractors objected to her work on both the specific and general levels – that is, they would have been happy to employ either the DDT or ecology narratives. (And some did invoke both.) But just as Carson herself may have underplayed the structural and economic aspects of her ecological critique to widen the book's appeal, her opponents gravitated toward the rhetoric they judged most useful for the arguments they wished to make. The early critics, faced with *Silent Spring's* ample documentation and Carson's obvious command of her material, broadened the discussion to an attack on the underlying ecological principles. Their successors, looking for evidence to marshal against the challenge that environmental science poses to conservative understandings of the free market, did the opposite. They hammered home a pro-DDT argument that aimed to criticize environmentalism by proxy. Across these evolving strategies, however, there remained at least one constant. Both sets of commentators found it rhetorically useful to demonize Carson herself. Her persistence as a villain has been more durable in anti-environmentalist rhetoric than have the specific errors for which she stands accused.

Why? What is gained for anti-environmentalists – in the 1960s or subsequently – by constructing Rachel Carson as an anti-heroine? And, most importantly, what can we learn from studying them? I would suggest that criticism of Rachel Carson addresses, at a minimum, three themes of interest to historians, historians of science, and environmental studies scholars. One, it highlights the role of individual figures in mediating science for lay audiences. Iconic figures are rhetorically convenient; they provide easy ways to reduce complex stories to manageable proportions. This is a feature of much media coverage, but an especially prevalent one when the subject is technical. Two, it reveals the persistence of gender in evaluating science and scientists. It is no accident that Carson – who was labeled a 'spinster' by at least one contemporary and who was the subject of many magazine profiles that noted her unmarried status – has been constructed as a villain for preventing life-saving DDT from being delivered to children.⁴⁷ Carson, in this reckoning, has failed in the

maternal realm as well as in the scientific one. Third, it signals that the challenge environmentalism poses to established authority has changed substantially over the past two generations. In the early 1960s, *Silent Spring* constituted a threat to the Cold War scientific establishment.⁴⁸ By the early twenty-first century, many of her notions about interconnectedness in nature were widely accepted in professional circles and had become threatening chiefly to neoliberal thinkers and activists in the political sphere.

Exploring the differences within criticism of Carson is a counter-intuitive task. The contrasts between such critics – considered as a group – and those disposed favorably to *Silent Spring* are rich with historical and cultural meaning. But this richness should not obscure what can be learned by leaving behind a comparative framework and exploring the fluctuations, agendas, and rhetoric of anti-Carson criticism on its own terms. There is, I argue, a critical space between opponents such as Baldwin and Rosenberg, who do not demonize Carson, and those such as Darby and Coburn, who do. The presence of a villain does rhetorical work that other sorts of criticism do not, or do not do as easily. Creating a villain is a way of delegitimizing the entirety of an argument, of attempting to remove it from discourse altogether. In *Merchants of Doubt*, Oreskes and Conway suggest the depth of the problem that Carson poses for anti-environmentalists. 'Accepting that by-products of industrial civilization were irreparably damaging the global environment', they write, 'was to accept the reality of market failure. It was to acknowledge the limits of free market capitalism'.⁴⁹ The key point here concerns rhetorical change: Carson's logic forces an acknowledgment of those limits. Free-market capitalism – whatever its virtues – is a cherished fiction in a nation in which virtually all political actors advocate state economic intervention of some kind. Like many such fictions, it tends to serve powerful interests, and tends to serve them best when unexamined. Hence the utility of creating a stock villain, as the Competitive Enterprise Institute does by placing her name on a website alongside pictures of African children who have succumbed to malaria.⁵⁰ When the technical questions become moral ones, and the moral lines so clear, there is no need to bother with even the moderate critiques of a Baldwin or a Rosenberg. Constructing Carson as a villain, therefore, is not a tactic to win debates, but to avoid them.

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⁴⁶ Ralph Lutts, 'Chemical Fallout: Rachel Carson's *Silent Spring*, Radioactive Fallout, and the Environmental Movement', *Environmental Review* 9, no. 3 (Autumn 1985): 210–225.

⁴⁷ Carson had adopted her grand-nephew, Roger Christie in 1957, and her presence as head of a non-traditional household was a subject of much journalistic interest.

⁴⁸ See Kinkela, *DDT & the American Century*; Edmund Russell, *War and Nature: Fighting Humans and Insects with Chemicals from World War I to Silent Spring* (Cambridge: Cambridge University Press, 2001).

⁴⁹ Oreskes & Conway, *Merchants of Doubt*, 238.

⁵⁰ <http://rachelwaswrong.org/>.