Credulousness, Credibility, and American Indian Therapeutic Knowledge in John Josselyn's New-Englands Rarities Discovered

Rebecca Jane Woods February 17, 2007 STS.330 Profs. D. Jones and S. Helmreich

In 1672, the Englishman John Josselyn published an intriguing little book on the "Discovery of the Natural, Physical, and Chyrurgical Rarities" of seventeenth-century New England. The outcome of an eight-year residence with his brother Henry Jocelyn in what was then the colony of Massachusetts (now Maine), New-Englands Rarities Discovered is a compilation of topographical, botanical, zoological and ethnographic information on the land, peoples, plants and animals of New England—part travelogue, part natural history—"methodically delivered" to the reader. Its scope is broad and by modern standards, eclectic. Josselyn's discourse on New England's animal, vegetable and mineral "rarities" is peppered with ethnographic commentary and followed by a chronology of the colony. Detailed descriptions of plant life, including when and where Josselyn happened upon them are presented with their medicinal and nutritive values, on occasion accompanied by what appear to be original drawings. Information about the medicinal, commercial and nutritional values of animals is found intertwined with their physical descriptions, various uses by colonists and Indians, and in some cases their habits and lifecycles.

New-Englands Rarities presents something of a puzzle to historians of early America and colonial science and medicine, in part because evaluating and making sense of Josselyn's aims and purposes in composing this work is complicated by relatively scanty biographical information about the author himself.³ Josselyn was a member of the gentry and evidently possessed a classical education and training as a physician. His

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¹ John Josselyn, *New-Englands Rarieties Discovered*, (reprint) ed. (Bedford, Massachusetts: Applewood Books, 1672), 6.

² Ibid.

³ The most complete treatment of Josselyn's life and education can be found in Paul J. Lindholt's introduction to Josselyn's second work, *Two Voyages to New-England*. See Paul J. Lindholdt, ed., *John Josselyn, Colonial Traveler: A Critical Edition of Two Voyages to New-England* (Hanover, N.H.: University Press of New England, 1988), xiv-xxiii.

connections to the colonial enterprise were loose at best; his brother Henry Jocelyn supported his own colonial endeavors with mixed success as a commissioner for a rival colonial company at odds with the Puritan Massachusetts Bay Company, and John Josselyn's most thorough biographer credits this relative disinterestedness with the absence of overt promotional tendencies in his work, unlike those of many of his contemporaries.

The neutrality of Josselyn's tone is one of the more perplexing aspects of *New-Englands Rarities*. With what seems to be equal degrees of credulousness, and seemingly without judgment, he reported the mundane, the evident, the fantastical, and the curious alike. His detailed descriptions of plants and animals sit alongside speculation as to the presence of lions on the North American continent (as evidenced by third-hand reports of American Indians having seen jackals), the nature of ambergris (a giant mushroom growing on the ocean's floor), and the practices, habits, and appearances of American Indians, these last noted in what is a remarkably unbiased tone for his time. While his work garnered him mild recognition from his contemporaries—a brief nod from the Royal Society of London and enough readership to inspire a second, expanded account of his travels, *Two Voyages to New-England* its assessment in the historiography reflects a more ambiguous mixture of both criticism and acclaim. Guilty of credulity, "extravagances and other scientific shortcomings" in the eyes of some historians, his work deserved "genuine credit...as natural history" in the eyes of others.

⁴ Josselyn, *New-Englands Rarities*, 21, 36, Virgil J. Vogel, *American Indian Medicine* (New York: Ballantine Books, 1973, c1970), 38.

⁵ John Josselyn, "Two Voyages to New England," in *John Josselyn, Colonial Traveler: A Critical Edition of Two Voyages to New-England*, ed. Paul J. Lindholdt (Hanover, N.H.: University Press of New England, (1674) 1988).

⁶ Lindholdt, ed., *John Josselyn, Colonial Traveler*, xvii, Raymond Phineas Stearns, *Science in the British Colonies of America* (Urbana: University of Illinois Press, 1970), 140.

In particular, historians of science and medicine wrestle with a perceived difficulty in reconciling Josselyn's appetite for the fantastical and the value of his work as a document of natural history. For my purposes, issues of Josselyn's credulousness become relevant only after unpacking the interplay between knowledge-making and credibility in *New-Englands Rarities*. While Josselyn's work offers much material about English perceptions of seventeenth-century North America, colonists' preoccupations with health and disease, and other historical subjects, it is the knowledge-making practices at the nexus between colonial and indigenous knowledge of medicine and the natural world upon which I focus.

This paper is primarily an attempt to make sense of how Josselyn enrolled American Indian knowledge for his own ends in *New-Englands Rarities Discovered*. I have tried to remain particularly attentive to that knowledge pertaining to the curative properties of animals as a case study, in part out of my own interest in this aspect of early modern medicine, and in part as a small offering to redress an imbalance in historiographical attention to the use of animals as *materia medica*. My argument in this paper is two-fold. First, I argue that Josselyn's attention to and inclusion of American Indian therapeutic knowledge and parctice in *New-Englands Rarities* works to add to its author's authority and credibility as a witness and a source of information and knowledge about North America. Drawing on Alisha Rankin's recentwork, I suggest that in the medical experimentalism of the early modern period the act of witnessing a cure imparted authority and legitimacy to the reader. Thus, by interacting with Indians and witnessing their cures, Josselyn appropriated for himself the legitimacy of Indians' own knowledge

⁷ Alisha Michelle Rankin, "Medicine for the Uncommon Woman: Experience, Experiment, and Exchange in Early Modern Germany" (Doctoral, Harvard University, 2005).

of *materia medica* and the healing arts, with implications for the knowledge-making process in the colonial context. In addition, this can also be seen as a way of collecting "natural knowledge in textual form," as a textual contribution to the early modern passion for collecting marvels and wonders, as Alisha Rankin has argued for sixteenth-century German medical recipes.⁸

In the second part of my argument, I address the issue of Josselyn's credulousness. I argue that by recasting Josselyn's interest in and treatment of American Indian medical knowledge in *New-Englands Rarities* as a matter of solidifying and adding to his own credibility, we must rethink standard historiographical assessments of his contribution to early modern science and medicine in the eyes of both modern readers and in those of his contemporaries. His wonderstruck tone is often cited as evidence of his credulity, as is his willingness to believe and rely on what Indians said. I argue that Josselyn's tone is better understood in the context of where notions of wonder and curiosity sat in relation to natural history and medicine in the seventeenth century. Writing at a time when wonder and curiosity overlapped and were both important elements of inquiry into the natural world, the wonder expressed by Josselyn is hardly out of the ordinary. Thus, I conclude with a reevaluation of John Josselyn's place in the historiography of colonial science and medicine.

To make these arguments, I combine the theoretical approaches of four authors. I borrow from Joyce Chaplin the notion of ventriloquism as a way of getting at and understanding the process of transcribing Indian knowledge in *New-Englands Rarities*. ⁹ From Alisha Rankin's recent dissertation, I borrow a pair of ideas relating to the early

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⁸ Ibid., 75.

⁹ Joyce E. Chaplin, Subject Matter: Technology, the Body, and Science on the Anglo-American Frontier, 1500-1676 (Cambridge, Mass: Harvard University Press, 2001).

modern therapeutic recipe to understand the particular nature of Josselyn's medical information and its place within *New-Englands Rarities*. One is the idea of the therapeutic recipe as a textual form of knowledge about the natural world. The other idea is the notion of medical experimentalism mentioned above, in which witnessing a successful cure becomes the ground for authority and legitimacy, as related to but distinct from other forms of early modern experimentalism. Finally, my argument also draws on the work of Lorraine Daston and Katharine Park, who have laid out a conceptual map of wonder and curiosity, and their role in inquiry into the natural world from the medieval period throughout the eighteenth century. ¹⁰ I use their approach both to unpack Josselyn's stance towards natural rarities and to situate his work in a broader temporal context.

Therapeutics, Credibility, and American Indian Knowledge

A significant portion of the medical content of *New-Englands Rarities* relates to therapeutic use of animal parts and products. Many of the remedies Josselyn suggested for aches, pains, colds and "shrunk Sinews" involve the grease, fat or skins of various animals. For example, Bears' skins "newly flead off" cured "One *Edw[ard] Andrews*" of cold and lameness, while raccoon fat was esteemed "excellent for Bruises and Aches." Josselyn reports that beaver cods were used by Englishwomen in New England to treat "Wind in the Stomach and Belly," and that the oil of the "*Soile* or *Sea Calf*" is

¹⁰ Lorraine Daston and Katharine Park, *Wonders and the Order of Nature*, 1150-1750 (New York: Zone Books, 1998).

¹¹ Josselyn, New-Englands Rarities, 16.

¹² Ibid., 14.

¹³ Ibid., 17.

¹⁴ Ibid., 18.

very good for Scalds and Burns."¹⁵ Fish, too, provided a source of *materia medica*; a stone or bone found in cods' heads "being pulveriz'd and drank in any convienient liquor, will stop Womens overflowing Courses notably"¹⁶ while the thorns off the spine of a dogfish could be used to scarify the gums and so alleviate a toothache.¹⁷

The use of animals or animal parts ascribed with curative properties constituted a standard element of early modern *materia medica*; Daston and Park note that along with plants, animals with "remarkable properties" had "long been a part of therapeutics." Where the ascription of curative properties to animals and animal parts has been a question for historians of medicine, it has most often been relegated to the fringes of healing practices under the category of "magic." Given Josselyn's training as a physician, and how ubiquitous the therapeutic use of animals is in *New-Englands Rarities*, it is more likely that such uses were a commonplace of medical practice; Josselyn seemed to have taken for granted that information on the curative potential of New England's fauna was useful and relevant, and would be recognized as such by his readers. Such information appears as one of multiple uses of an animal, not necessarily separable from its value as food or fur, supporting the supposition that such usage was commonplace to early modern medicine.

¹⁵ Ibid., 35. Soile is an alternate spelling and pronunciation of seal.

¹⁶ Ibid., 32.

¹⁷ Ibid., 33.

¹⁸ Daston and Park, *Wonders and the Order of Nature*, 138. Though the use of animal parts or products in early modern medicine has been little studied in the historiography, a full examination of the practice is beyond the scope of this paper.

¹⁹ To the extend that the ascription of curative properties to animals and animal parts has been a question in the historiography of medicine, it has usually fallen under the category of "magic." See Wayland Debs Hand, *Magical Medicine: The Folkloric Component of Medicine in the Folk Belief, Custom, and Ritual of the Peoples of Europe and America: Selected Essays of Wayland D. Hand* (Berkeley: University of California Press, 1980), Keith Thomas, *Religion and the Decline of Magic* (New York: Scribner, 1971). This is possibly due to the bias of modern readers for whom therapeutic use of animals is often associated with superstition or "folk" medicine, but deeper examination of a wider range of sources in both Europe and North America would be needed to answer this question to satisfaction.

Interestingly, while Josselyn did not always note the provenance of his information, he was careful to trace the origins of his information about the healing properties of plants and animals when it derives from the area's American Indian inhabitants. For instance, he reported that "A black *Wolfs* Skin is worth a *Beaver* Skin among the *Indians*, being highly esteemed for helping old Aches in old people" when worn as a coat.²⁰ He also observed that Indians were known to "annoint themselves...from top to toe" with bears' grease to "harden them against the cold weather," and that "*Indian Webbes*" or wives hung the teeth of young moose around the necks of teething children.²² In addition, seal oil was also "much used by the Indians, who eat of it with their fish, and annoint their limbs therewith, and their Wounds and Sores," and wounds treated with a salve of "Racoons greese or Wild-Cats greese" and the plant White Hellibore were "Cured by the Indians."

In part, Josselyn's attentiveness to the source of his knowledge reflects the mutually constitutive relationship between concepts of efficacy and observation or witnessing in early modern therapeutics. In her study of sixteenth-century German recipe collections, Rankin argues that "the material value of medical recipes depended on their *potential* use in practice," and thus hinged on observation of the cure. By assuring readers that "the usefulness of a recipe had been witnessed by direct observation," authors of recipes vouched for its potential for efficacy, its value as a remedy. In return, "the experience of having witnessed a successful cure lent authority to the observer."

²⁰ Josselyn, New-Englands Rarities, 16.

²¹ Ibid., 14.

²² Ibid., 20.

²³ Ibid., 35, 43.

²⁴ Rankin, "Medicine for the Uncommon Woman", 90.

²⁵ Ibid., 68.

²⁶ Ibid., 96.

This form of witnessing was associated with and helped define a culture of "medical experimentalism" in early modern Europe, which Rankin argues is related to, but still distinct from, the experimental culture of the "new science" of Robert Boyle and Francis Bacon.²⁷ Efficacy and the act of witnessing were thus closely linked to legitimacy in modern therapeutics.

Though Rankin's study can help explicate Josselyn's rhetoric of efficacy and witnessing in *New-Englands Rarities*, the distinct nature of his book as well as the colonial context in which it was written distinguish it from the sixteenth-century claims of efficacy and observation Rankin anayzed. In *New-Englands Rarities*, we see a different sort of witnessing than in either the medical experimentalism of Rankin's German practitioners or that of the experimental culture of the new science. Instead of the direct observer who had personally witnessed, or claimed to have witnessed, a cure, in Josselyn's work efficacy is assured in most cases by proxy witnesses, reliable second-hand reports of witnesses whose experience curing or being cured reinforced the legitimacy of Josselyn's knowledge of the therapeutic uses of animals and animal parts.

The proxy witnesses found in Joesselyn's work also differ from the idea of "virtual witnessing" developed by Steven Shapin and Simon Schaffer in *Leviathan and the Air Pump*. For these authors, the "literary technologies" of Robert Boyle's experimental reports—"detailed naturalistic [visual] representation" of his experimental apparati, "prolix" written descriptions of the experiment itself and the circumstances in which it was undertaken, and set conventions for replicating the experiment—enabled him to recruit his readers as virtual witnesses who could then "validate experimental

²⁷ Ibid., 95-96. See also Steven Shapin and Simon Schaffer, *Leviathan and the Air-Pump: Hobbes, Boyle, and the Experimental Life* (Princeton: Princeton University Press, 1985).

phenomena as matters of fact."²⁸ Josselyn's aim was not so much to establish his *readers* as witnesses to the veracity, or credibility, of the information contained in *New-Englands Rarities*; rather, it is he *himself* who became the virtual witness. Through conversations with others, often Native Americans, who had witnessed or performed cures upon which he wished to report, Josselyn himself became the virtual witness, a credible conduit of information for his readers.

While few would level a charge of prolixity at Josselyn, the detail and specificity he managed to pack into his concise entries in New-Englands Rarities work to reinforce legitimacy and the potential efficacy of the therapeutic uses of the animals he presented in cases where he himself mades no claim to have witnessed it. He included the name of "One Christopher Luxe, a Fisher-man," who "having burnt his Knee Pan was healed again by an Indian Webb" who applied Alder and Hemlock barks, and seal oil to the wound.²⁹ In another reported instance, "A Friend of mine of good Quality living sometime in *Virginia*" cured himself of the bloody flux by drinking goose fat drippings. Here we can turn our attention again to "One Edw[ard] Andrews," who "being foxt, and falling backwards cross a Thought in a Shallop or Fisher-boat, and taking cold upon it, grew crooked, lame, and full of pain, was cured, lying one Winter upon Bears Skins newly flead off, with some upon him, so that he sweat every night."³⁰ This entry conjures up a full and lively image of the injury, the remedy, and even the passage of time, taking the reader from the mishap in the fishing boat through the winter to emerge straight and healthful in the spring. Though he may not have directly observed these and other cures, being able to point to specific individuals who experienced them enabled Josselyn to

²⁸ Shapin and Schaffer, Leviathan and the Air-Pump, 61-63.

²⁹ Josselyn, New-Englands Rarities, 61-62.

³⁰ Ibid., 14.

shore up the legitimacy of the potential therapeutic value of the potential cures in *New-Englands Rarities*.

The proxy witness also takes a more general form in Josselyn's work. In addition to cases of individual colonists who are sometimes cited by name, he reported the therapeutic uses of animals by a more general witness, the unspecified "Indian." Along with the "Indians" who "annoint" themselves with bear and seal oil, there are also cases of "An Indian" who cured his own bruised knee with nothing more than Alder bark, or "An Indian Webb" who cured an inflamed foot with the roots of "our Garden or English Patience..." The unspecified Indian, who becomes a sort of universal or categorical witness for Josselyn is significant in an analysis of the knowledge-making processes at work in New-Englands Rarities, because it points to a way in which English epistemologies of medicine and the natural world undergo transformation in the North American context. This categorical "Indian" becomes for Josselyn both a source of knowledge and a legitimating witness particular to knowledge created or culled from the North American context.

This brings us to the particularity of the process of legitimating knowledge in North America. While Josselyn's rhetoric of efficacy and witnessing do reflect larger trends in early modern medical therapeutics, the process is necessarily different because it takes place in the space of cultural contact and exchange. Not only is the categorical Indian as a source and a witness in the formation of knowledge unique to the colonial experience in North America, what it meant for Josselyn to harness the authority of the Indian witness is significantly different than the exchange of authority and efficacy in an early modern European context. The implications of knowledge-making concerning the

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³¹ Ibid., 49, 98.

therapeutic potential of New England's plants and animals takes on wider significance, speaking to a body of literature on the interaction between Native and European epistemologies in colonial North America.

A number of historians and ethnohistorians argue that the transcription of Indians' words and ideas by colonists was an act of colonial domination.³² In the case of medicine and colonial English interest in new cures and Indian therapeutics, some argue that the very act of translating Indian cures into an English framework, while seeming to pay a compliment to American Indians' medical knowledge actually constituted a backhanded blow to indigenous knowledge and epistemologies, that by seeking "to fit new remedies into their own understanding of medicine...the English assumed from the beginning that they were capable of knowing more about Indian medicine than the Indians did."33 Joyce Chaplin writes that "[e]ven as the English recounted that Indians had redress against illness, they framed this information in a way that ultimately stigmatized Indian medical treatments" as inferior to English knowledge and practice. 34 She refers to the process whereby indigenous knowledge was incorporated into English writings "ventriloquizing;" she argues that by translating American Indian pharmacology and medicine, and more generally, Native American beliefs about the natural world, into English words and English contexts, the English appropriated that knowledge, stripped its originators of its power, and then used it as an argument for Indians' inferiority compared with themselves. With respect to American Indian therapeutics, she argues in particular

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³² See for example Clara Sue Kidwell, "Native Knowledge in the Americas," *Osiris* 2nd Series, vol. 1 (1985), Sarah Rivett, "Empirical Desire: Conversion, Ethnography, and the New Science of the Praying Indian," *Early American Studies* 4, no. 1 (2006), Londa Schiebinger, *Plants and Empire: Colonial Bioprospecting in the Atlantic World* (Harvard University Press, 2004).

³³ Martha Robinson, "New Worlds, New Medicines: Indian Remedies and English Medicine in Early America," *Early American Studies* 3, no. 1 (2005): 97.

³⁴ Chaplin, Subject Matter: Technology, the Body, and Science on the Anglo-American Frontier, 1500-1676, 194.

that "Native pharmacology" was "ventriloquized as a position in the debate between herbal Galenists and chemical Paracelsians." This has wider implications because for Chaplin, "[t]he English created difference by focusing on the body, then moved out from this site into the rest of culture." Later, during the eighteenth century, these differences would coalesce into notions of race to be employed by colonists as an argument for the inferiority of Native American bodies and technologies.³⁷

It's not clear that Josselyn explicitly ventriloquized Indian knowledge into a position in the debate over Galenic and Paracelsian medicine, or that he intended *New-Englands Rarities* to speak to any such debate. He certainly favored herbal medicine over mineral remedies; the therapeutic value of plants gets the most emphasis in *New-Englands Rarities*, followed by animals and finally minerals, which receive a scant three pages notice out of 114. Chaplin's theory, though, can be applied more generally to understand how he ventriloquized Indians into the role of the categorical witness in the medical experimentalism of his time. An oft-cited problem in the history of early America and Native North Americans is the inability of historians to recapture what Indians said or did without the mediating influence of Europeans. What can be done with respect to Josselyn, though, is to triangulate his medical content with what he himself wrote about Native Americans more generally to unpack his use of their medical knowledge as a source of legitimacy and of Indians themselves as authoritative witnesses. Undoubtedly, this involved a process of rendering and transformation through which

³⁵ Ibid., 161.

³⁶ Ibid

³⁷ For an argument that traces a similar pattern through English interpretations of epidemic disease among American Indians in the seventeenth and eighteenth centuries, see David S Jones, *Rationalizing Epidemics: Meanings and Uses of American Indian Mortality since 1600* (Cambridge, Mass. and London: Harvard University Press, 2004).

Indian knowledge was repackaged and squeezed out as textual bits of natural knowledge for Josselyn's collection of rarities.

Triangulating with what Josselyn said about Native Americans' bodies and appearances lends weight to the interpretation that he considered American Indians a legitimate source of knowledge about the therapeutic properties of New England's plants and animals. He described them in Two Voyages as "tall and handsome timber'd people," having black eyes "which [are] accounted the strongest for sight..." This admiration can be read as further support for Indians as a source of medical knowledge. Healthy appearances in this reading function as living proof that American Indians' therapeutics worked. In addition, what Josselyn remarked of Indian knowledge and oration further supports this. In Two Voyages, Josselyn remarks that though "Their learning is very little or none, Poets they are as may be ghessed by their formal speeches, sometimes an hour long...and the whole doth [stand firm]."³⁹ Josselyn further noted that "Their Language is very significant, using but few words, every word having a diverse signification, which is exprest by their gesture... Their Speeches in their Assemblies are very gravely delivered, commonly in perfect Hexamiter Verse, with great silence and attention, and answered again ex tempore after the same manner."40 Though such remarks suggest appreciation and respect for what Josselyn recognized were sophisticated forms of oration and communication, most historians of early American cultural contact like Chaplin would argue that by its very nature Josselyn's work disempowered his Native informants.

Looking at what Josselyn had to say about how the American Indians he encountered communicated also sheds light on the process of transcription and translation

Josselyn, "Two Voyages," 89.
Ibid., 97.

⁴⁰ Josselyn, New-Englands Rarities, 5.

that went on behind the scenes of his published work. Contrasting "formal speeches," "Hexameter Verse," and the "diverse signification" of language and importance of gesture in communication with the concise information contained in *New-Englands Rarities* discloses the ventriloquizing work that went into it. Alisha Rankin has suggested that early modern medical recipes can be understood as "natural knowledge in textual form," linking the collection of recipes to the "early modern fascination for collecting the material objects of nature." Josselyn, then, can be understood as a collector and compiler of such bits of medico-natural knowledge. The process by which he likely pared down, culled, and selectively chose what to incorporate into his work is where ventriloquizing took place. The end product of this rendering was Indian knowledge of therapeutic resources—animal and herbal—repackaged into textual bits of natural knowledge.

Wonder, Curiosity, and Credulity

Having established that Josselyn enrolled Native Americans as credible proxy witnesses, and repackaged their knowledge of the therapeutic uses of animals and plants into textual records of natural knowledge, thereby reinforcing his own legitimacy and credibility, it remains now to examine the issue of his credulousness. The notion of credulousness runs through *New-Englands Rarities* as a subtext, lurking below the surface of Josselyn's neutral tone and "methodical" delivery of the natural and therapeutic resources of New England. Historians have had difficulty reconciling the

⁴¹ Rankin, "Medicine for the Uncommon Woman", 75.

⁴² Ibid., 74. Early modern cultures of collecting are the subject of much recent work. See especially Daston and Park, *Wonders and the Order of Nature*, Paula Findlen, *Possessing Nature: Museums, Collecting, and Scientific Culture in Early Modern Italy* (Berkley, Los Angeles, London: University of California Press, 1994).

seemingly more outrageous of his claims with what is undeniably the value of his work as a record of the natural history of seventeenth-century New England, viewing the work of "science" as incompatible with what is often read as evidence of Josselyn's credulousness.

Paul Lindholdt, who has published what is perhaps the most thorough examination of Josselyn, struggled to reconcile what he saw as Josselyn's persona as "an accomplished scientist" with his propensity to "enthusiastically" gather "the lore that prang in such profusion from the strange new soil of America." Ultimately weighing in on the side of Josselyn as a spinner of yarns and teller of tall tales, Lindholdt wrote that his "scientific accomplishments are overshadowed by his inclination to record the wonders of a paradise he envisioned in New England." Historian Raymond Stearns, who included John Josselyn in his 1970 "who's who" of colonial science under the heading of "a Source outside the [Royal] Society," was no more generous towards him than Lindholdt. He, too, complained of portions of Josselyn's work "wholly lacking in scientific description and terminology," and speculated that "some of the accounts of remarkable cures and wondrous beasts which he occasionally interpolated into his catalogue of rarities must have lifted the eyebrows of his most credulous follower."

Making sense both of historians' discomfort with the juxtaposition of "science" and credulity and of the subtext of credulousness in *New-Englands Rarities*, means taking a closer look at the nature of naturalistic inquiry in the seventeenth century and of the genealogical ties between therapeutic marvels and natural history. In *Wonders and the*

⁴³ Lindholdt, ed., *John Josselyn, Colonial Traveler*, xviii, xvii.

⁴⁴ Ibid., xviii.

⁴⁵ Stearns, Science in the British Colonies of America, 139.

⁴⁶ Ibid., 142.

⁴⁷ Ibid., 140.

Order of Nature, Daston and Park argued that the seventeenth century was a time of transition in forms of inquiry into the natural world. During the late Middle Ages and Renaissance, they argue, European naturalistic inquiry was characterized by a sense of wonder on the parts of scholars and priests who strove to interpret signs and wonders of nature within a largely theological framework. Wonder began to move toward the center of naturalistic inquiry with the work of "elite physicians" exploring the phenomena of therapeutic marvels, such as thermal springs, in the fifteenth and sixteenth centuries.⁴⁸ By the mid-seventeenth century, though, attitudes of wonder had begun to be challenged by a competing mode of inquiry, that of curiosity. "Wonders of nature"—rarities, oddities, therapeutic wonders, and the seemingly inexplicable—continued to be the foci of investigation into the natural world, but the mode of so doing was increasingly characterized by the discipline and sustained inquiry of curiosity, the hallmark of the "new science" and natural philosophers like Francis Bacon, Boyle, and members of the newly-established Royal Society. 49 Though the overall trend traced by Daston and Park is one in which an ascendant curiosity eventually supplants wonder as the dominant mode of inquiry, they are careful to note that this process was nonlinear, proceeding piecemeal well into the eighteenth century.⁵⁰

In some ways, Josselyn can be read as an heir to this traditional fusion of therapeutic wonders and natural history. Extraordinary cures and extraordinary therapeutic practices constitute a type of wonder or rarity in *New-Englands Rarities*. Some of the therapeutic practices in Josselyn's work are indeed difficult to believe. For instance, Josselyn reported that "*Indians*, when weary with travelling [sic]," will take up

⁴⁸ Daston and Park, Wonders and the Order of Nature, 133, 44, 72.

⁴⁹ Ibid., 218, 328.

⁵⁰ Ibid., 10, 18.

a rattlesnake "with their bare hands, laying hold with one hand behind their Head, with the other taking hold of their Tail, and with their teeth tear off the Skin of their Backs, and feed upon them alive; which they say refresheth them."⁵¹ Other cures are less dramatic but still couched in the language of the marvelous, as is "An Achariston, or Medicine deserving thanks," an account of Josselyn's having cured "an Indian whose Thumb was swell'd, and very much inflamed, and full of pain, increasing and creeping along to the wrist, with little black spots under the Thumb against the Nail."52 Rather than serve as evidence of Josselyn's credulity, extraordinary cures in New-Englands Rarities are instead well within the bounds of the standard fare of seventeenth-century natural history. The inclusion of such extraordinary cures, or therapeutic wonders, speaks to the historically close ties between medicine and natural history, while the wondrous attitude they suggest on Josselyn's part can by seen on the arc of wonder's descent and curiosity's rise in the seventeenth century as a moment in the piecemeal, nonlinear process described by Daston and Park. The subtext of credulousness, I argue, then, is more a historical misreading of Josselyn's work, and a tendancy to judge it on the basis of present standards of credulousness and believability. Writing at a time when an "atmosphere of wonderstruck novelty that suffused natural philosophy and natural history throughout the seventeenth century,"53 Josselyn's indulgence in the seemingly strange and fabulous was not untoward, but rather to be expected.

⁵¹ Josselyn, New-Englands Rarities, 39.

⁵² Ibid., 58

⁵³ Daston and Park, Wonders and the Order of Nature, 215.

Conclusions: Credulousness, Credibility, and the Historical Inquiry

Credulousness and credibility in *New-Englands rarities* are two sides to the same coin, and one cannot be understood without examining the other. By addressing Josselyn's emphasis on American Indian therapeutic knowledge and interrogating his motives for so doing, I have tried to argue that what looks like Josselyn's credulity to the modern reader-historian was pretty standard fare in the natural history of the seventeenth century. Josselyn employed American Indians' knowledge of the therapeutic properties of the region's animals and plants as an attempt to bolster his own credibility; as the information he culled from them was processed into textual bits of natural knowledge, he ventriloquized his Native informants into proxy witnesses. Their credibility as indigenous and long-time inhabitants of New England who knew the therapeutic uses of animals and plants reinforced Josselyn's own legitimacy as a physician, traveler, and one who had the authority to impart that knowledge to his English readers.

This context of the Indian as a legitimate source of information, and as a credibility-reinforcing witness undercuts accusations of credulity leveled at Josselyn by some historians for whom his more extraordinary cures are simply too outrageous to be believed. On the contrary, Josselyn stood on firm and deep historical ground, not only in the close ties between medicine and natural history, but in the long history of wonder as the dominant attitude in inquiry into the natural world, and the continued appetite for oddities, rarities, and wonders of nature in the seventeenth century. As a modern reader, it is a challenge to filter out modern prejudices and approach a puzzling work like Josselyn's through contemporary eyes. *New-Englands Rarities*—in addition to all it reveals about cultural contact, early modern therapeutics, colonial medicine, and early

modern therapeutic reliance on animals and animal parts—affords a uniquely interesting opportunity to do so.

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