An Object Lesson in Colonial Pedagogy

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The following lesson on pepper appeared in the third edition of Elizabeth Mayo's *Lessons on Objects* (1832): "Lesson I. Pepper. *Qualities of Pepper.* It is hard, vegetable, foreign. It is a tropical production, wrinkled, spherical, rough, black, conservative, dry, dull. It is sapid, pungent, odorous, aromatic, medicinal, wholesome, useful, stimulating.[1]

The lesson was meant to be elaborated upon by a teacher, who would ask students a series of questions to help them enumerate the listed qualities of pepper. Mayo's lesson book represented her interpretation of a pedagogic technique first developed by Johann Pestalozzi (the famous Swiss educator) in his school at Stanz in 1798. Object theory, as articulated by Pestalozzi, postulated that the best means to instill higher thinking in children was through the observation, description, naming and classification of objects. By presenting children with a series of objects and asking increasingly complex questions, teachers could cultivate the 'natural' path of a child's mental development from lower to higher levels of perception. Ultimately, children would learn to think and reason abstractly, moving from objects to ideas (or ideas contained in objects).

In order to accomplish this, the teacher first encouraged children to observe the objects presented to them and carefully describe their observations. The various adjectives used to describe pepper, for instance, are ones which children were meant to come to by themselves. However, Mayo's book provided model lessons which consisted of almost catechistical questions and answers that framed the presentation of different objects and helped the teacher guide the student (rather than helping the student discover) the 'correct' observations.

The lesson on pepper appears in the fourth section of Mayo's book, at a point where Mayo suggests that the chief aim of object lessons: "Is to exercise the children in arranging and classifying objects; thus developing a higher faculty than that of simply observing their qualities. The complex operation of connecting things by their points of resemblance, and at the same time of distinguishing them individually by their points of dissimilarity, is one of the higher exercises of our reason."[2]

The "exercise" of higher powers of reason, in this case, meant connecting observations about pepper with observations on cinnamon, mace, and allspice,

0010-4175/XX/96–121 $9.50 © 2003 Society for Comparative Study of Society and History

https://doi.org/10.1017/S0010417503000057 Published online by Cambridge University Press

and recognizing that these objects shared certain qualities which distinguished them from other objects. In other words, they formed a 'class.' The majority of observations on pepper (and the other spices) were based on empirical and sensual perception: hard, wrinkled, spherical, black, pungent. But there were also adjectives with which children were supposed to become familiar that did not seem to emerge from direct empirical observation: pepper as a tropical, foreign vegetable, for instance.

In the concluding section on spices, Mayo is careful to distinguish between those characteristics that are "essential" to spices, being pungent and aromatic, and those which are "accidental," such as being foreign. In spite of the careful distinction Mayo makes between 'empirical' (essential) qualities and qualities that are the "accident" of place, these differences are easily collapsed. Thus at the very end of the lesson, children learn that spices, as a class, are distinguished by being "aromatic, pungent, tropical."[3]

This essay traces the origins of our common-sense understanding of the object lesson to its nineteenth-century pedagogic roots in order to examine why we have come to believe that particular objects can stand in for abstract concepts. I begin with a typical object lesson in Mayo's influential book, to demonstrate the ways metropolitan children were implicitly and explicitly taught through objects that they belonged to a larger imperial world, connected through circuits of production and consumption. While Pestalozzi, in his school at Stanz, had used objects found in the natural environment (like shells and leaves), British object lesson books routinely replaced these with colonial commodities, like pepper.

In the lesson on pepper, for instance, there is a footnote to the adjective "foreign" that models a typical exchange between teachers and students:

Teacher. If it comes from a foreign country, how do we get it?
Children. It comes in a ship.
Teacher. This is called importing; and sending out of our own country is called exporting. What do we call this exchange of production?
Children. Trade or commerce.
Teacher. And what are the people called who carry it on?
Children. Merchants.

Even in Mayo's vocabulary list at the end of her book, the only adjectives that do not speak to the empirical qualities of objects (e.g., flexible or laminated) relate to their putative origins and provenance: indigenous, exotic, exported, and imported. In spite of Mayo's distinctions about "essential" and "accidental" traits, metropolitan children were clearly aware of the importance of recognizing the "foreign-ness" and "exotic" qualities of cinnamon or ginger or coconut. As the century progressed, object lesson books more explicitly connected up commodities with the characteristics and qualities of the "native" peoples and places to which they were "indigenous": the pungency and odor of pepper metaphorically speaking to the cultures of those who grew it in South and Southeast Asia.

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But earnest and moralistic nineteenth-century object lesson books were not solely aimed at the metropolitan imperial imagination of British schoolchildren. The object lesson was exported to the British colonies at the same time that it became popular in Britain itself. In nineteenth-century Britain and India, government officials, missionary educators and radical pedagogues regularly evoked the object lesson as a means to modernize and elevate both primary schooling and teacher training. In this essay, I focus on two of the earliest contexts in which object lessons were introduced: evangelical teacher-training schools in Scotland and missionary schools in Bengal.[4]

Although the object lesson was a widely used and popular teaching technique in nineteenth-century Britain and its colonies, historians of education largely ignore it.[5] Compared to the 'high' educational theories of Locke and Rousseau, object lessons, in spite of their ubiquity, appear mundane and unimpressive. But in the everyday world of nineteenth-century primary schools, object lessons seemed metonymic for 'modern' education itself—a way to index the influence of 'radical' Continental pedagogy and new theories of learning. But from the very beginning of its introduction into Britain, embedded in this popular pedagogic technique were powerful cultural and epistemological assumptions that were fundamentally informed by Britain's imperial identity.[6]

Pestalozzi had developed his object theory as an argument about the innate curiosity and educational potential of all children, rich and poor alike. As the method traveled to Britain and its colonies, educators were clearly influenced by Pestalozzi's view of object theory as a central part of early education for the masses. Thus Mayo's Home and Colonial Training Society introduced the technique into primary schools, often run by evangelical Christians to educate lower class children. In India, missionaries who opened the first 'modern' primary schools also popularized object theory.

However, the context of nineteenth-century 'modern' education in Britain and colonial India led to important modifications in Pestalozzi's theory. Educators in both metropolitan Britain and colonial India substituted pictures of objects for actual objects in their lessons. This substitution ultimately minimized the encouragement of self-discovery (handling objects for themselves) for didactic instruction (being given lessons on pictures of objects).

Metropolitan and colonial primary school teachers felt that the primary focus of object lessons was to educate children in one of the fundamental tenets of 'modern' Western theory: the subordination of the object to the subject.[7] Yet this was meant to be done almost counter-intuitively, using concrete objects (or pictures of object) to help children think abstractly. These abstractions ranged from understanding systems of Linnaean classification (pepper as a part of the "spice" family) to ideas of moral truth.

Ironically, the idea that it was most appropriate for young children to be taught through a concrete and empirical relationship to the world meant that primary schools for lower class children (usually run by Christian evangelicals)

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in Britain, and missionary institutions in India were also the places where new subjects based in empiricism were introduced. Eschewing the classical education that was the basis of the schooling for the ruling classes, lower class and colonial children were introduced to the empirical subjects of geography, comparative ethnography and the natural sciences.[8]

Although these new subjects are much closer to our scientific ways of thinking, their introduction in primary schools was based upon the assumption that poor children (and colonial populations) were at a lower level of cognitive development. The method and metaphor of the object lesson rehearsed the epistemological development that defined nineteenth-century thinking about children (fixated on the concrete world) and adults (able to reason and think abstractly and morally).

The binary of children and adults, in this model, was made easily homologous to other binary classifications: primitive and civilized societies, lower and upper classes, and 'heathens' and Christians. Thus the model of child development implicit in the lesson, positing a 'natural' path of learning that started with objects (pepper) and then moved to abstract ideas and categories (foreign spices), was also a model used by British educators, officials, and evangelicals to understand religious and cultural development. To Protestant evangelicals, who were heavily involved in teacher training and primary schooling in Britain and its colonies, the falsity of other religions and faiths was partially attributable to their relationship to concrete objects and concrete ways of thinking. The religious practices and thinking of fetishistic Africans, idolatrous Hindus, or even crucifix-wearing Catholics could be placed on an evolutionary continuum comprising a movement from objects (fetishes, idols, the crucifix) to words (the Bible). Object theory implicitly paralleled the development from childish (concrete) thinking to adult (abstract) thinking as similar to the development experienced by colonial, non-Christian communities once exposed to Western education and Protestant Christianity.[9]

Thus, it is also within the context of evangelicalism that the development of object training in Britain must be situated. After all, the inherently imperial context of educational theory and practice in early nineteenth-century Britain was largely the result of evangelical Christian revival and influence. Evangelical Christians, and the home and colonial missions they sponsored, were largely responsible for the development of mass, 'modern' primary schooling in Britain and its empire.[10] Concerned with the hegemony of the Church of England, evangelical Nonconformists (Baptists, Methodists and Congregationalists) opened Sunday schools for their children.[11] These were then expanded to educate (and reform) the working poor and soon thereafter, the 'heathens' abroad. The Nonconformists, in keeping with their commitment to literacy and a less hierarchical Church, were open to newer pedagogic theories and prided themselves on offering less conventional instruction than the staid Anglican schools.

In Britain, long after 'secular' (meaning non-sectarian Christian) schools had

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been opened, teacher training remained largely the provenance of evangelicals.[12] Thus object theory (representing *au courant* Continental theory) was routinely taught to evangelical teacher trainees sent to teach all over the empire, from Edinburgh to Calcutta. Although a critical part of Protestant evangelicalism was literacy and the supremacy of the "word" of God (and thus God's laws), Christian educators assumed that this was too sophisticated a manner of learning for small children. Instead, children had to be taught through objects to appreciate the meaning and power of words ("begin with things and go from them to words"). Beginning with words would only lead to rote memorization and repetitive learning, not true understanding. In the object lesson, understanding was ultimately based upon the ability to think abstractly, to see objects as symbols or signs. This was true whether one was teaching about the pungency of pepper or the transcendence of God.

Non-Christian colonial populations, like children, were assumed to attribute purpose and intention to objects rather than to the laws of God and nature.[13] Missionaries felt that the 'heathen' propensity to anthropomorphize was most clearly reflected in the central-place idols and fetishes in their worship. Thus, in missionary schools in India (initially the main type of Western primary education available to colonial populations), object lessons were meant to wean Hindu children from their fetishistic and idolatrous practices, rehearsing the shift away from heathenism (the worship of objects) to the truth (and abstraction) of Protestant Christianity. Although it was 'natural' that children (and child-like populations) were attracted to objects (commodities, animals, spices), these had to be eventually replaced by ideas and words. The object lesson, relying as it did on teaching empirical observation and causality, was thought to be the opposite of non-Christian (and non-Western) epistemologies.

By the turn of the century, there were two different trajectories for the object lesson, one in the schoolroom and one outside. In both colonial Bengal and Britain, object lessons were effectively secularized. Object lesson books were now seen as preparing the primary school child for scientific thinking and experimentation, not evangelical Christianity. Empiricism, abstraction and classification were all fundamental to scientific thought and the scientific method. This led to less didactic teaching and greater emphasis on the original method of object lessons—self-discovery and perception based on more than observation.

But the British modifications to Pestalozzi's technique (making three-dimensional objects into two-dimensional images) also suggests another future of the object lesson: the development of the ethnographic museum and exhibition. In David Jenkin's article, "Object Lessons and Ethnographic Displays," the relationship between object lessons and ethnography (and museums) is made explicit in a late nineteenth-century report: "In the schoolroom the diagram, the blackboard, and the object lesson, unknown thirty years ago, are universally employed . . . Amid such tendencies, the museum it would seem,

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should find congenial place, for it is the most powerful and useful auxiliary of all systems of teaching by means of object lessons."[14]

Ethnographic displays, used in imperial exhibitions and museums, were arrangements of material objects that represented various cultures. Like the object lesson itself, ethnographic displays of objects increasingly relied on pictures that were arranged according to an implicit evolutionary framework—from the 'primitive' to the 'advanced.' Jenkins suggests that "the reduction of three-dimensional objects to 'inscriptions on paper,' result[ed] in the simplification of their conceptual and symbolic management; and the production of extraordinary public displays of other people's material culture."[15] I will suggest that the original object lesson, universally employed in classrooms by the late nineteenth century, did much the same thing. Object lessons not only taught non-Christians and children to think abstractly, they also became one of the preeminent means of representing (through objects) those very populations.

Pestalozzi

The putative originator of the object lesson, Johann Pestalozzi (1746–1827), was born in Zurich and spent his life researching and experimenting with children's education. Pestalozzi became interested in educating children after reading Rousseau's *Emile*, whose "ideal system of liberty . . . increased in me the visionary desire for a more extended sphere of activity in which I might promote the welfare and happiness of the people."[16] Soon after his marriage, he attempted to put Rousseau's ideas into action by setting up a farm in which he boarded, educated and trained poor children. This proved to be an economic disaster, but Pestalozzi repeated his efforts at Stanz, Burgdorf, and Yverdon, opening schools for orphans and teacher-training institutions. Between 1780 and 1801, Pestalozzi published a series of books on pedagogy including *Leonard and Gertrude* (1781), and his most famous work, *How Gertrude Teaches Her Children* (1801).[17]

In addition to the influence of Rousseau's romantic ideals, Pestalozzi's theoretical approach was shaped by his exposure to the empiricist theories of Locke and Hume, and the rationalist (and psychological) views of Leibniz and Kant. His writings were meant to be practical applications of empiricist and psychological insights he gleaned (and cobbled together) from both British and Continental philosophers. For Pestalozzi, direct perception of the world was only effective to the degree that it is explicitly connected to "natural" laws thought to govern a child's mental development. "I was every moment confronted with facts which the increasing light on the physical and mechanical laws by which our minds are enabled to receive and retain external impressions. Every day I strove more and more to conform to these laws in my teaching, although I did not thoroughly understand the principle upon which they were based till last summer." Pestalozzi's pedagogic method countered the earlier notions of education as inculcation. The problem with the "traditional" system, he

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asserted, was most clearly manifested in "catechizing" instruction based upon a bounded set of questions and answers. "In all catechizing the child is fettered, partly by the limits of the precise ideas about which he is catechized; partly by the form in which he is catechized; and lastly, but certainly, by the limits of the teacher's knowledge, and still more by the teacher's anxious care that he should not be drawn beyond the circle of his knowledge."[18]

Pestalozzi felt he improved upon the catechistical method by drawing out children's natural inclination and teaching them in a manner that took into account their internal development. His most important and new principle was the notion of spontaneity or self-activity. Children should not be given ready-made answers but should arrive at questions and solutions themselves and thus cultivate their own perceptions, thinking and intuition.[19]

Thus the purpose of schooling was to develop a child's *anschauung*, sense impression/sense perception through the critical categories of number, form and language. This method worked by presenting children with concrete objects, like a ball, and having them notice the sensual qualities of that object (the number, the shape, the texture, etc.) and then naming that object—a round ball. Pestalozzi's ideas were similarly based upon the notion that the development of *anschauung* had to precede the learning of abstract rules, laws, or concepts. In math, for example, it was important that children visually see how addition and subtraction work (that is, by having concrete objects to remove and add) before they moved onto algebraic equations. This could also be conceived as a movement from the simple to the complex.

Directly observing and experiencing the world through objects (rather than books) would prepare children for the next stage of learning—abstraction. For Pestalozzi it was critical that early education start from objects before moving on to book learning. The lower form of thinking was the passive perception of forms and objects. Pestalozzi's method was meant to nurture a more active and higher apperception that allowed children to understand objects through "intuition" and "imagination."

Object Lessons in Britain

The object lesson, drawing from many of the high philosophical traditions of the Enlightenment (empiricism, romanticism, and rationalism), nonetheless had to be reconciled with the major approaches to schooling in early nineteenth-century Britain. English Romanticists, like Wordsworth and Coleridge, were critical of the rationalist approach to education taken by individuals like Maria Edgeworth (1798). The Romanticists felt that the rationalist approach led to mechanistic and catechistical teaching in most primary schools. Instead they suggested that children should be allowed to confront gaps and limitations in their own thinking (instead of being relentlessly guided).

However most British educators, whether they subscribed to English romanticism or Lockean empiricism, were fearful that a wholly sensual educa-

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tion dependent on a child's "self-activity" (as envisioned by Pestalozzi) would threaten traditional structures of authority.[20] The danger with an open-ended system of learning was that educators, parents, Church authorities, and ultimately the state ran the risk of their students (and subjects) coming to a wholly different conclusion than the one that they expected or wanted. This fear was explicitly discussed in the primary schools run by Christian organizations. Although desiring progressive methods of education, evangelical Christians were wary of subverting authority (particularly God's authority). This partially explains why Pestalozzi's ideas, influenced by Enlightenment rationality, were domesticated into a highly empiricist, mechanized, and Christian-influenced method in the British object lesson. "Unfortunately, the English Pestalozzians, under the influence of Charles and Elizabeth Mayo, lost sight of the cultivation of the love environment of the general method . . . In losing sight of the general method the Mayos' version emphasized only one phase of Pestalozzianism, the object lesson."[21]

The British version of Pestalozzi's theory of *anschauung* discarded some of the fundamental concepts developed at Stanz, Burgdorf, and Yverdon. Rather than open-ended inquiry, observation and intuition, object lessons in Britain seemed to emphasize everything stressed by a Protestant Biblical education: asking catechistical questions, and the use of images (rather than objects) inevitably framed by a book.

These modifications were clearly intended for an evangelically based learning environment, such as the teacher-training institutions in Britain. One of the most famous of these was the Scottish Normal School in Glasgow run by the Scottish Presbyterians Thomas Morrison and David Stow. This school soon served as a paradigm for teaching instruction in both Britain and its colonial possessions.[22] Mid-nineteenth-century object lesson books credited Stow (along with Mayo and the Home and Colonial Training Society) with introducing the "various systems of infant education of Europe."[23] Stow was already well known in Britain for transforming the standard classroom arrangements popularly known as the "monitorial system." This system, developed by Andrew Bell (while in Madras) and Joseph Lancaster, allowed one adult teacher to teach large numbers of children through the use of older monitors. However, by the 1830s, there was mounting criticism of the rote teaching and learning that such a system engendered. Stow, through his Scottish teacher-training institution, developed a classroom arrangement much closer to the one that we are familiar with. James Donald describes Stow's system in the following manner: "[It] mov[ed] away from the individualism of the monitorial schools towards the simultaneous instruction of a whole class by a teacher. This new emphasis on what Stow called 'the sympathy of numbers' was reflected in the design of school rooms. Whereas the desks in a Lancastrian school were often arranged in a slight incline to make all the pupils visible to the master, Stow introduced galleries designed to focus the attention of children on their teacher."[24]

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The introduction of the gallery, where the children focused on the teacher (rather than having individual monitors spread throughout the room) allowed Stow to train his teachers in Pestalozzi's "object lessons," which Stow tellingly called the "oral gallery lesson."[25] Although reading the Bible and catechism lessons continued to be the dominant pedagogic orientation of Sunday and mission schools, the oral gallery lesson supplemented traditional methods of literacy which were based solely on textual knowledge. Thomas Morrison, the rector of the Free Church Training College in Glasgow and Stow's associate, described the difference between the object-lesson and the other forms of teaching found in parish schools: "Much of our education has been, no doubt, an unreal, a visionary thing; much of it has been concerned with words, and nothing more."[26] A proper education, Morrison argued, necessitated bringing the real world into the school. British education, undergirded by the idealistic vision that mere words were enough for instructing the young, precluded educational progress. As Morrison went on to explain, the real world enters the classroom not through words but through objects.

Stow, like Mayo, significantly modified Pestalozzi's scheme by using pictures of objects rather than the objects themselves. This was an important difference and remained a source of tension among educators. As late as 1900, in a circular to schoolteachers in India and in Britain, the department of public instruction re-emphasized the importance of "object lessons" as using actual objects. "Object teaching leads the scholar to acquire knowledge by observation and experiment. However well the lessons may be illustrated by diagrams, pictures, models, or lantern slides, if the children have no opportunity of handling and watching the actual object which is being dealt with, the teacher will be giving an Information Lesson rather than an Object Lessons."[27]

The transformation of three-dimensional objects into two-dimensional drawings served a number of useful functions. It allowed, on the one hand, the teacher to control how children related to the object (primarily visually), and secondly it ensured that object lessons everywhere, from India to Britain, were the same—a set of visually uniform images printed on cards. For Stow and later British educators the effect of using picture cards was to completely privileged the visual over any other sense. That is, while Pestalozzi had been concerned to bring children into nature, to feel, smell and (perhaps) taste objects, now the object lesson was based primarily upon differences and qualities one could see.

Objects and Consumption

Like Mayo, Stow and Morrison wrote a series of lesson books that were fundamentally informed by the consumption and production of imperial commodities. Though the putative intention of the oral gallery lesson had been to have children become familiar with common objects found around them, the lessons used animals and agricultural products that Scottish children would not find in their immediate environment, but would find in the colonies.

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The comparison between Mayo's book and Stow's book shows that in spite of the contention that perception and observation were inherently objective, the adjectives used to describe objects were never inherent or given, they were always ideological. The description of pepper in my introduction had focused on metropolitan consumption, but Mayo and Stow also used certain products, like rice, to describe and understand consumption in the colonies. Their observations on rice, however, reached very different conclusions. In Mayo's book, the empirical qualities of rice (like those of pepper) are described almost poetically in the following manner:

It is white.
hard.
It is opaque.
smooth.
stiff.
bright
solid.
porous
absorbent
wholesome.
nutritious.
Use—To nourish.[28]

For Mayo, the initial stage of describing rice through a series of adjectives is expanded in a later lesson to a description of rice that explains its cultivation and consumption in more anthropological terms.[29] But importantly for our purposes, Mayo recognizes that rice serves the same purpose in India as bread does in Britain; that is, to nourish.

In contrast, David Stow used the example of rice cultivation to draw very different observations on the relationship between diet and human nature. After a description of the high starch-to-gluten ratio of rice, and its concomitant characteristic of being "less stimulating and nutritious," Stow asks the students, "What nations live on rice—what is, in general, their disposition? Can you trace any connection between their soft, dull, phlegmatic temperament, and the food on which they live?"[30]

Stow makes explicit the connection between empirical observation and the 'hidden' qualities of those who consumed that object: a peculiar instance of abstraction. There is no escaping the highly gendered adjectives that Stow chooses to describe rice and rice-eating cultures. They are "soft" (womanly), placid cultures in contrast to the hearty, energetic (masculine) cultures of Britain. In Stow's object lesson, the essential qualities of rice come to be shared by those who consume rice. In this way, a child could create a category like 'rice eating peoples' that would parallel the categories of spices or animals. In Mayo's example, however, the category might have been 'nourishing food,' emphasizing the similarity between societies, rather than using food as metonym for cultural difference.

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As the century progressed, object lesson books became more systematic, standardized and 'scientific.' There continued to be lessons on some of the same objects discussed by Stow or Mayo (animals, vegetables, minerals, and other miscellaneous manufactured goods), but empire figured in object lessons in different ways. This can be seen in an object lesson on the "cocoa nut" as described by Mayo in the early part of the nineteenth century, and a similar lesson in *The Handy Book of Object Lessons from a Teacher's Note Book*, by J. Walker (the tenth edition published and edited in 1876).

Like the lesson on rice, Mayo's description of the coconut describes its consumption in the colonies: "The coca nut tree affords the Indians food, clothing and means of shelter. Before the kernel comes to maturity, it is soft and pulpy, may be scraped out with a spoon and offers the natives an agreeable and nutritious food . . . by soaking the fibrous trunk it water it becomes soft and can be manufactured into sailcloth . . . they are also used for umbrellas, mats, and various other useful articles."[31] Mayo's lesson emphasizes both the functionality of the coconut and the resourcefulness of those who grow and use the fruit.

In fairly stark contrast to this is the description of the coconut in Walker's 1876 book: "Suppose we were to go to Ceylon, which is an island S.E. of India. We should there find portions of land appropriated to the cultivation of coca-nut trees. Each of these plantations, as they are called, is enclosed by a high fence. At one corner of the plantation is a watch tower, in which a man is constantly stationed to keep guard over the plantation. The watchman is a Malay, and he is armed on account of the thievish nature of the Cingalese."[32]

The object lesson on the coconut, focusing as it does on the *plantation* where it is grown (owned by white plantation owners), seems to parallel the deepening colonial relationship between Britain and South Asia. Mayo's early nineteenth-century lesson discussed coconut cultivation only in terms of native use and consumption. The 'hidden' qualities of the coconut were the other ways in which it was used by natives.

One could argue that the changes in object lesson books were themselves a lesson in changing colonial relationships. In Walker's discussion of the coconut, it seems that by the late nineteenth century, British children were being taught how to manage the colonial products that were brought in as objects to metropolitan Britain. In order to have the coconut in the British classroom, the white plantation owner had to ensure that the "thievish" Singhalese population was vigilantly policed. The coconut thus became an object lesson in increasing production in a colonial economy.

The object lesson was part of a more general shift in the curricular offerings at the non-elite (secular and Christian) schools attended by the working and lower classes. Although beginning in the 1830s and 1840s, this process continued into the early twentieth century. Jacqueline Rose, analyzing early twentieth-century language theories, argues that this distinction between the subjects appropriate for elementary education (which was the end of schooling for most

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working and lower class children) and that appropriate for the higher classes was most clearly seen in the distinct ways in which language was taught.

Here, Pestalozzi's insistence on direct perception as the base of a child's learning was transformed into theories of class-based language education. Rose argues that working class children in elementary schools in early twentieth-century Britain were taught that language arose from a direct relationship with concrete objects. Thus, elementary school children, when presented with images of objects, were encouraged to focus on descriptions of the object itself, a form of "natural expression." Language instruction based on a utilitarian relationship to the concrete world was contrasted with the language instruction in secondary schools for the middle and upper classes which tended to emphasize a classical education and an approach to language as style. Rose argues: "We can compare this [elementary language instruction] with the use of literature in the secondary school, where the child's consciousness is directed at the language of the author . . . the aim being to produce an attention to language itself rather than to bypass it in the name of the event which it records . . . In the elementary school the stress [is] on the visible and manipulable aspects of physical experience, on concrete impression and on language as the direct extension of the visual sign."[33]

The distinction between concrete language and stylistic language also shaped the kinds of subjects studied by elementary and secondary school students. Ironically, missionary and state-run schools for poorer children were where the new subjects of empire were being introduced. In contrast, elite public schools continued to emphasize a classical education in Latin and Greek. Rose suggests that this led to a paradox in which: "the public school remained the repository of the ideology of imperialism, but the subjects relevant to the Empire (geography, religion, comparative ethnography) with their corresponding emphasis on empirical access to the real world, were only introduced into the state schools."[34] Although Rose identifies this trend during the period of late nineteenth-century high-imperialism, Mayo's and Stow's object lesson books demonstrate that an education based on an empirical and concrete apprehension of the world was already developing by the 1830s.

In the 1840s, the elite public schools, threatened by the democratizing possibilities of both Christian and state education, became the repository of classical learning and literature. But a classical system was already being dismantled as British education officials realized that the running of an empire, as evidenced in the coconut object lesson, demanded a knowledge of the new subjects.[35] Good colonial governance depended on direct empirical observation, and experiential methods and object lessons prepared the ground for secondary schooling in the modern subjects of geography, religion, and comparative ethnography: relating observable differences with cultural differences.

The popularity of the object lesson was not limited to metropolitan Britain alone. As evidenced by the very name of Mayo's publisher—the Home and

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Colonial School Society—and the objects used in the lessons, educational reform and pedagogic change in Britain occurred within an explicitly colonial framework. Thus as early as 1833 (just four years after Elizabeth Mayo's book appeared in England) a reference to object lessons appeared in the report of an Anglican mission school in Calcutta. Mr. and Mrs. Perkins opened a vernacular infant school for native and Anglo-Indian children. The six native teachers who taught at the school used the "lessons prepared by Mr. Perkins [where] the names of objects or figures represented in the lesson cards are printed in Bengali."[36] The description of the Perkins' object cards appears very similar to those described by Stow in his oral gallery lesson. It seems that the object lesson had already made its way into colonial mission schools in Bengal.[37]

Objects, Idols and Fetishes

Pestalozzi's primary goal had been for children to explore the natural environment and develop their skills of observation. Thus "moral" education was a very small part of his methods and books. But within Anglo-American and colonial object books, there were far more explicit connections made between object lessons and the teaching of Christianity and morality.

N. A Calkins, in his book on object lessons, remarks on the close connection between object-oriented lessons and God's will: "If we would take for our guide in education those laws which God has prescribed for the development of mind and follow them, we must begin with things and go from them to words, teaching words as representative symbols or signs of the things themselves. This course would render the path of the learner pleasant as God intended the acquisition of knowledge should be."[38]

Drawing upon the Enlightenment tradition of natural philosophy, Calkins assumes that the process of observing, describing, naming, and categorizing objects is not merely an arbitrary set of pedagogic instructions. It is a form of thinking that is a "natural" extension of God's laws. The relationship between "words" and "things" [objects] was not only a means of teaching abstraction and reason but a way of understanding Christianity itself. Only through a systematic process of instructing children in how to observe could they be later taught how to understand the critical concept that "words [were] representative symbols or signs of the things themselves."

A common evocation of Christianity was through the discussions of the "natural' world. In a "criticism" of an object lesson on bats conducted in the New York Normal Training Schools, the headmaster praised the teacher for leading children through a series of questions and observations to understand "higher" truths: "With the exceptions stated, the great principle of not telling young children what they can discover by the exercise of their own faculties, was carried out; also the important one of keeping the children intellectually active during the lesson. Finally, a religious turn was given to the lesson, without any apparently forced feeling on the part of either the teacher or children."[39]

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The "religious turn" alluded to by the headmaster was an exchange in which the children were led to discover that the goodness and wisdom of God was made physically evident in the fact that the bat had wings to fly (since it lacked sharp eyes). Then the children were asked to give the teacher "a text which speaks of God's goodness to all things which he has made," which they promptly did.[40]

The possibility for moral lessons was not lost on missionary teachers either since the modification of objects into pictures of objects allowed more didactic teaching. For instance, in a late nineteenth-century report from a North Indian missionary school (tellingly called Dusky Darlings), Frances Brockway described a typical object lesson in her class: " 'Shut your eyes, children,' is the order and then I take out one of the pretty animals and stand it on a stool where all can see . . . One day, I asked, 'What is the use of the cow's tail?' 'To pull,' was the ready answer—the only right one from anyone acquainted with the Indian bullock-*gari* driver and his habits. So I had to tell them that it hurts to have her tail pulled quite as much as it hurts a little girl to have her ear pulled."[41]

In a country filled with cows, Brockway chooses to use the picture of a cow sent from Britain in order to teach her students a lesson that she assumes must be similarly imported: the importance of Christian kindness towards all of God's creatures. Brockway's object in the lesson was to re-signify (and thus rehabituate) in the minds of her 'dusky darlings' the meaning of the cow's tail away from native cruelty toward Christian empathy. The use of the cardboard cow ensured that Brockway could polemically impart without fearing the "self-activity" that might lead a child to actually pull the tail of a cow should she be exposed to a real animal.

These examples of the explicit moral education that object lessons afforded obscures the more subtle and fundamental way in which the lessons were connected to Christianity, and Protestantism in particular. This was the evangelical belief that Western education, emphasizing as it did reason, rationality, and abstraction, would prepare the ground for the eventual conversion of 'heathen' populations. The moral lessons learned by Brockway's students would, ideally, lead them closer to Christianity itself. The specific relationship of the object lesson to this endeavor is best understood through the concept of idolatry and fetishism.

Nineteenth-century Protestants had a complex and troubled relationship with objects and worship. Medieval Catholics had distinguished between the proper and improper use of religious objects (by witches or non-Christians, for example) by making the Church the central and ultimate authority on what was a 'sacred' versus an 'idolatrous' practice and object. Idolatry was thus narrowly understood to be the manufacture and worship of artificial objects *not* addressed to the true God, representing a form of spiritual fraud. Consequently, a central component of the rejection of Catholicism by Protestants was the rejection of all iconic images. It was no longer a question of 'true' and 'false' objects (de-

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cided upon by the Church) but the denial of divine power to any object and a rejection of the authority of the Catholic Church itself.[42]

The antagonism between Catholicism and Protestantism colored the ways in which Protestant missionaries understood all non-Christian (in this case Hindu) practices: rote memorization of scripture/mantra, individuals at the mercy of priestly machinations, and a peculiar and literal relationship to religious objects (crucifixes and idols). If we think of the object lesson as a metaphor, non-Christian societies seemed to be stunted in their intellectual growth by fixating on objects (like idols) rather than learning to abstract and reason (as epitomized by Protestant Christianity).

For European intellectuals, idolatry was placed on the continuum between monotheism and fetishism. As William Pietz suggests, "The truth of the fetish resides in its status as a material embodiment: its truth is not that of the idol, for the idols truth lies in its relation of iconic resemblance to some immaterial model or entity."[43]

The idol, then, was understood to be iconic, to symbolize something outside of its immediate materiality. But for many Christians, including evangelical missionaries, these differences were often collapsed. Thus Hindu ritual practice (which most nineteenth-century theorists of religion regarded as symbolically evoking some higher being) was understood by many missionary educators as a literal worship of material objects or animals. In fact, Tomoko Masuzawa speculates that fetishism, as a "third category," helped to clarify the distinction between illegitimate and legitimate uses of material objects in religious practice.[44] Thus missionaries could argue that the idol was a completely different kind of religious object. Ideally, the object lesson would instruct Hindus to understand that their sacred objects were mere material artifacts with no power of their own. Ironically, objects were both the problem and the solution to the problem of idolatry.[45]

In order to understand the connections made between object lessons and idols, it is important to pay attention to the context in which idols were encountered and perceived in the nineteenth century. Richard Davis in his book, *Lives of Indian Images*, emphasizes the centrality of context in looking at objects, particularly religious objects. Davis contrasts a Hindu idol of Shiva encountered in a South Indian temple with one encountered at the National Gallery in Washington D.C., where the idol represents an art object. The importance of context and location separates book-learning from object-learning. "Admittedly there are better and worse places to read, but generally location does not enter profoundly into the dynamic relationship established between the reader and the text during the moment of reading. The location of an object, by contrast, plays a constitutive role in the act of looking."[1]

Davis' observations help elucidate the ways in which idols could be relocat-

[1]Richard Davis, *Lives of Indian Images* (Princeton, N.J.: Princeton University Press, 1997), 9.

https://doi.org/10.1017/S0010417503000057 Published online by Cambridge University Press

ed and re-contextualized within an object lesson. Rather than as museum pieces, idols could be metonymically used to illustrate Hinduism. In a missionary manual entitled *Object Lessons for Junior Work*, the author outlined the ways in which teachers and pastors could use the object lesson both to inspire their students for mission work and to critique false heathen gods. The author observes: "At one of the most interesting Junior Missionary meetings I ever attended, a little heathen idol was brought from the pastor's study and made the object lesson. We need only plan our meetings ahead, and with the determination on our part, God will supply the need."[46]

Though not explicitly stated, the purpose of the idol in the missionary meeting was to give young metropolitan Christians the opportunity to observe and handle as an *object* what others, like Hindus, regarded as a god. Rather than encountering the idol in a temple (where most Hindus would have seen it), the junior missionaries were given the idol in an object lesson making the idol analogous to the spices manufactured in the colonies. By making the idol an object, like pepper or rice, the pastor could demystify and demonstrate the banality of non-Christian objects of worship and devotion. Furthermore, the idol, like rice, also symbolized, for a metropolitan audience, something essential about 'heathens.' Denying 'heathens' an understanding of the symbolic or representational, Protestant evangelicals viewed the idol as a manifestation of the child-like literalness of non-Christian worship. Like children, 'heathens' (like Hindus) were grounded in concrete ways of thinking in which they literally believed that the idol had power.

Davis suggests that the idol, within the context of Hindu worship, (and not the object lesson) has to be understood as both transcendent and immanent. The idol, and the ritual (*puja*) that accompanied its worship in a temple, allowed the devotee access to God, and allowed God to inhabit the temple, the idol, and the hearts of devotees. The power of worship in the temple lay not in merely observing (viewing) the idol, it lay in one's emotional and devotional relationship to God. As Davis explains:

> What could be misleading here, though, is the suggestion . . . that there is only one kind of attentive looking. Medieval south Indian Saiva audiences looked at their images attentively, no doubt, but visual experience was not their most highly valued aim. They valued a personal, emotional relationship with the deity mediated through the divine presence in the icon. Through the notion of God's actual embodiment within an object, temple etiquette and ritual practice directed the gaze of worshippers and their actions onto the transvalued icon.[47]

Missionaries were struck by the fact that Hindus seemed to think that idols were "alive." By "alive," they understood that Hindus literally felt the idols could move, talk, speak, and so forth. In contrast, the 'alive-ness' in Hindu practice depended on the consecration of the idol during a *puja*, at which time the devotee had a "personal, emotional relationship" with the deity mediated through the divine presence in the icon.

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The nuances of Hindu practice and religion were largely ignored in most nineteenth-century Western understandings of Hinduism. Instead, missionary writings abounded with references to the idolatrous proclivities of all native children, their tendency to misunderstand the fundamental subordination of objects to the (thinking) subject. A rather humorous example of this was an anecdote reported in a late nineteenth-century missionary journal. At the end of the year, missionary (and other 'modern') schools routinely gave prizes for various academic and non-academic achievements, ceremoniously handed out by some local colonial official. But it seemed that even this common practice could be subverted by the fetishism of 'heathen' children: "A vague and unauthenticated statement from a correspondent . . . [caused] much annoyance and trouble . . . the writer affirmed that 'mission dolls given as prizes to Indian children have been utilized by the heathen for their idolatrous worship. The matter was taken up by every society.'"[48] Although the report ultimately proved false, it engendered great anxiety about the instability of objects in the hands of Indian children.

Teachers had to be ever-vigilant against such misappropriation of secular objects. But with the proper training, it was hoped that native children could learn to be skeptical of the power ascribed to their idols. One Methodist teacher related an object-lesson she used in her school in rural Bengal which directly involved the local village gods. The teacher questioned the students' assertions that idols were really gods themselves and not concrete representations of gods. "At first some of the children were inclined to dispute the statement that idols have ears but hear not. The students maintained that idols could hear and are alive, but one day the children in one village on their way home from school, ran into a little temple and went close up to one of the idols and then came out saying, 'No it doesn't breathe, we have been in to see.'"[49]

For the Methodist teacher, empirical observation of the idol, seeing that the idol did not literally breathe, would be enough to dispel the sacredness of the 'fetish' object. This missionary, like many others, denied the symbolic role of idols and idol-worship in Hindu practice. Instead, she believed that it was by proving to her students that the idol could not literally breathe, hear or see, she could destroy their religious foundation and thus prepare them to hear the truth of Christ.[50]

Unfortunately for this Methodist missionary, and for evangelicals in India in general, this was a fairly rare occurrence. Indians rarely converted to Christianity through attending mission (or other Western) schools. Instead, the Protestant-inflected orientation of the object lesson was effectively secularized by state and native educators. Object lessons, and object lesson books became metonyms for 'modern' Western education and the teaching of reason, not Christianity. The failure of the object lesson in terms of facilitating religious conversions should not obscure its success in epistemologically shaping the meanings of primary education in India.

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Secularizing the Object Lesson in South Asia

The implicit cultural model of the object lesson in mission schools was to link the development of sense perception to Christianity. John Murdoch, a student of David Stow and a pioneer of Christian vernacular education in India, made this connection explicit in *Hints on Education in India*, a teacher-training manual translated into Bengali and used in mission training schools.[51] In the section on the object lesson, Murdoch quotes Morell's *Elements of Psychology*, and reminds the native Christian school teacher, "in a very early state of society, humanity itself is living the life of an infant; it is guided almost entirely by sense and instinct." He further explains:

> The above is illustrated to some degree in India. The rude Hill tribes may be said to be in an infantile stage. They seem alive to little more than impressions through the senses, the cravings of the appetites. The great bulk of the Hindus may, however, be compared to children in whom the imaginative powers are largely developed . . . A small proportion of the Hindus have advanced to the third stage, when there is a fondness for metaphysical speculation . . . The fourth stage, that of true knowledge, has yet to come in India. The persons for whom this book is intended will, under God's blessing, have very important share in bringing it about.[52]

For Murdoch, the Christian school teacher is responsible to not only teach reading and writing, but also to educate his students towards Christian thinking and belief. The act of guiding a native child from his initial "impressions through the senses" to "true knowledge" helps bring about the larger evangelical goal of converting imaginative (and idolatrous), and sometimes metaphysical Hindu ways of thinking to the abstract faith in the one true God.

But the translation of the object lesson in non-mission vernacular schools and teacher-training institutions eschewed the connection of abstract thinking with Christianity. Native educators recognized the importance of Pestalozzi and shared the belief that the main goal of education should be the cultivation of the senses. Like British object lesson books, the Bengali counterparts routinely used objects to teach schoolchildren about cultural and religious difference and hierarchy. Furthermore, like Murdoch, native educators also assumed that the ability to think abstractly was linked to stages of civilization. But in government and native non-Christian schools, it was scientific thinking, not Christianity, that was the ultimate goal of object lesson training.

From the 1850s, object lessons were being used and popularized in government training schools for native schoolmasters, the *guru-mahashoy*. The transformation of the *guru* into a modern teacher depended on his acquiring pedagogic methods that developed his student's abilities of perception. At the Normal School, established by the Department of Public Instruction in Calcutta to train the *guru*, many of David Stow's techniques were directly adapted: "The mode of teaching of the Baboo's (Baboo Bhudev Mukhopadhyay) is quite a model in contrast with the old Pundit system of nothing but books and nothing but words. Your plan is eminently calculated to rouse them to think. . . . Al-

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low me to suggest that a gallery (*this has been ordered and the difficulty of obtaining workmen has delayed it) is urgently needed to train the teachers to instruct a number together, and to give a knowledge of Object Lessons."[53]

Baboo Bhudev Mukhopadhyay's institution was "calculated to rouse them [the indigenous teachers] to think." Just as David Stow had made object lessons (which were conducted in a gallery) one of the central components of his educational system, so too would the colonial state. As James Long (an Anglican missionary himself) noted, there was no need for placing a European as the head of the training institution since Bhudev Mukhopadhyay enthusiastically took up the new pedagogic methods.[54] In fact, Bhudev Mukhopadhyay's popular teacher training book, *Sikshavidhayak Pastava: An Introduction to the Art of Teaching*, refers to Pestalozzi as the most important figure in transforming modern education. Not surprisingly, one of the main chapters of Mukhopadhyay's training manual was an illustration of how to conduct object lessons in village schools.[55]

Mukhopadhyay's manual encouraged the *guru* to use the new vernacular schoolbooks, like *Bodhodoy* and *Nitibodh* (published by native educators) to conduct object lessons. These schoolbooks, extensively published from the 1850s to the 1870s, reiterated the relationship of objects, intelligence, and stages of civilizational attainment found in their British and missionary counterparts. One of the earliest examples, *Nitibodh*, was translated by Rajkrishna Bandhopadhya and Iswar Chandra Vidyasagar from the popular British schoolbook series written by the Chambers.[56] "Countries where people are averse to labor and live on the flesh [of animals] obtained by hunting or on fruit and roots [*phalmool*], are uncivilized [*asabhya*]. The aboriginals of America and Australia as well as the Negroes are still in this state."[57] Like Stow's lesson on rice, Vidyasagar found "essential" qualities that connected cultural development to the material objects that people consumed (and produced) in different places.

While this section of *Nitibodh* was a direct translation of the Chambers' series, by the late nineteenth century these "lessons" on cultural evolution were completely integrated into Bengali schoolbook literature. This is clearly seen in an 1870 object lesson book, *Ratnashar*, by Kamakhacharan Ghosh, which had a series of lessons on rivers, the natural world (including solid, liquid, and gaseous objects), as well as animate beings.[58] In a section on "Mankind's Condition" Ghosh employed the same empiricism used to distinguish between gaseous and liquid objects to distinguish between the culture of those teaching and learning from *Ratnasar* (largely upper-caste, Hindu, and male) and the other inhabitants of Bengal. "Those people who live in the forest, catching and consuming animals, wearing bark, animal skin or nothing at all, are uncivilized." In addition to tribal groups like the "Santhal, Kol, Kuki and Gond," whom Ghosh feels obviously fit this description, he also includes the lowest castes, mentioning the Dhangar "who clean the sewers in Calcutta."[59] Going one step further than *Nitibodh*, Ghosh enumerates all those in Bengal who fall into the "class" of the uncivilized and the civilized.

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For the emerging Indian *bhadralok*, it was necessary to distinguish their culture as superior to those of other 'natives.' While the upper-caste Bengali may not be as 'civilized' as the English, his diet, housing and clothing, clearly pointed to his superiority over Africans, native tribal groups, and the lowest castes. The "uncivilized" are distinguishable, *Ratnasar* teaches, by the objects they wear and consume. But the ultimate reason for their backwardness is their lack of intelligence and reason. It is through intelligence and reason, Ghosh reminds his school-going readers, that civilized people are able to raise themselves up.[60] Here, the object lesson served as the basis for an evolutionary (Spencerian) model of civilization and culture. But instead of locating cultural achievement in Protestantism (as Murdoch does), in *Nitibodh* and *Ratnasar* it was book-learning, technology and industriousness that represented the abstract qualities shared by civilized cultures.

By the turn of the century, colonial educators directly linked the empiricism of object lessons to science learning. The department of public instruction made this explicit in its 1905 report on the revised syllabus which explicitly called for more emphasis on object lessons in the primary school curriculum: "Children of this age are incapable of learning science, for generalizing from facts belongs to a later stage of mental discipline, and instruction with this aim can only be given if the power of intelligent and accurate observation has been first developed. The cultivation of this power, which is the chief aim of the revised syllabus, is impossible, unless children are taught to observe, compare and contrast the objects which are around them."[61]

From the 1880s and 1890s in colonial Bengal and Britain, object lesson books were also used as science primers for primary schools. This did not mean, however, that the only lessons in these books were about the natural world. In fact, the Chambers' series of object lesson books as well as Vidyasagar's *Bodhodoy* or Ghosh's *Ratnasar* all used the same methods of empiricism to teach schoolchildren about the differences between, and hierarchy, of cultures.

CONCLUSION

It was not accidental that from the early nineteenth century object lesson books were filled with the objects and the people of the British empire. There were deep imperial and ideological assumptions embedded in educational theory, even theories developed for progressive goals. The object lesson captures this dichotomy. Pestalozzi's school at Yverdon, visited by Charles Mayo, was opened for orphans, for destitute children, and for training teachers in progressive pedagogy.[62] Yet the series of books and training methods that came out of that project made colonial commodities and colonial relationships seem an inherent and innate part of the "natural" world. In the colonies, the lesson (and colonial education more generally) was used by native and colonial educators to 'modernize' and 'standardize' schooling by denying the legitimacy of other forms of instruction and knowledge and by propagating a model of cultural evolution marked by technological and scientific abilities.

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But in trying to rid non-Christians of the fetishistic tendencies in their religious practices, object lesson books unintentionally captured the commodity and cultural fetishism of nineteenth-century British society. This is seen most clearly in the relationship between object lessons and the museum and world's fairs that were so ubiquitous in the later nineteenth century. Like object lessons, museums and world's fairs were grounded in the conceit that one could capture, represent, and then teach something fundamental about cultural, religious and social differences through objects. The relationship between objects effectively obscured the relationships (economic and otherwise) between people.

While the content of the lessons—the pepper, the cinnamon, the "India rubber" (not from India at all!)—was redeployed in many other colonial and postcolonial endeavors, the theory behind the object lesson also remained influential. In various ways, the understanding of childhood development remained beholden to metaphors of religious and cultural evolution. For instance, the effect of object theory is clearly evident in the work of another Swiss childhood theorist Jean Piaget (1869–1980). Piaget posits four main stages of cognitive development in children that clearly relies upon the assumption that they move from concrete objects to abstract thinking and deductive reasoning.

It is not, however, only the model of concrete and abstract stages of development that object lessons and Piaget's theory share. In Piaget's own work, and the modern understanding of his ideas, there is an almost inadvertent tendency to continue to understand cognitive stages in religious and cultural terms. In a popular psychiatric textbook, for instance, one of the characteristics of Piaget's preoperational stage is summarized in the following way:

> d. "Animistic thinking"—physical events and objects are endowed with feelings and intentions.[63]

Piaget's description of childhood cognition (even in this very modern rendering) not only relies upon a movement from the concrete to the abstract, but borrows directly from religious nomenclature to describe this movement. A child's thinking is not merely pre-operational, but animistic. Thus, the cognitive development that (all) children will experience can also be used to chart the (expected) development of a culture (or religion)—away from animism (endowing objects with feelings and intentions) to abstraction and deductive reasoning. By closely scrutinizing the important and progressive pedagogic and cognitive theories of childhood development, we can begin to see the ways in which they were and are shaped by a language of cultural and religious evolution.

NOTES

1. Elizabeth Mayo, *Lessons on Objects, as Given to Children Between the Ages of Five and Eight, in a Pestalozzian School, At Cheam,, Surrey*, 3d ed. (London: R. B. Seeley and W. Burnside, 1832), 68.

2. Mayo, *Lessons on Objects*, 66.

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3. Mayo, *Lessons on Objects*, 80.

4. In the early part of the nineteenth century, the Scottish school system, especially the network of parish and Normal schools, were considered more progressive than the English system. Evidence of Scottish educational achievement was found not only in Edinburgh and Glasgow, but in the British empire as well. Meanwhile, colonial Bengal, the British bridgehead, was one of the earliest areas of British missionary proselytizing and educational effort. Early missionaries, critical of the East India Company's diffidence towards educating Indians as well as the 'backward' state of indigenous schools (the *pathshala*), set up competing primary schools. The most widespread rural education was provided by *pathshalas* which taught rudimentary reading, writing, and accounting (related to land taxation).

5. While there are a number of books on Pestalozzi, and even on his influence in British education, none look specifically at the popularity of his object theory in the schools. Object lesson theory does find its way into some of the work on imperial exhibitions and museums, but again the pedagogic origins of it are neglected. George Stocking, *Objects and Others: Essays on Museums and Material Culture* (Madison: University of Wisconsin Press, 1985); David Jenkins "Object Lessons and Ethnographic Displays: Museum Exhibitions and the Making of American Anthropology," *Comparative Studies in Society and History* 36,2 (1994):242–70.

6. The colonial and imperial implications of British pedagogy tend to be dated to the age of "high" imperialism: the late nineteenth century. Historians overlook that many of the colonial components of later education were well established by the early nineteenth century.

7. See, E. L. McCallum, *Object Theory: How to do Things with Fetishism* (New York: State University of New York Press, 1999) and William Pietz, "The Problem of the Fetish" I, II, IIIa, published, respectively, in *Res* 9 (Spring 1985):5-17, 13 (Spring 1987): 23–45, and 16 (Autumn 1988):105–123.

8. Gauri Viswanathan similarly argues that India was the "laboratory" in which English literature (rather than classical literature) as an academic subject was developed. Gauri Viswanathan, *Masks of Conquest* (Delhi: Oxford University Press, 1998).

9. In the nineteenth century, British Protestants sponsored over twenty foreign missionary societies. Among these the three most important in Bengal were the Baptist Mission Society (BMS), the London Missionary Society (LMS), and the Church Missionary Society (CMS). British Protestant missionary work was inaugurated by William Carey, a Baptist missionary in Bengal. Missionaries were not allowed in Company territory and Carey initially worked as a superintendent at an indigo plantation until other Baptist missionaries arrived in 1799, at which time they all took refuge in the Danish enclave of Serampore.

10. The religious revival in the nineteenth century went hand in hand with a new interest in voluntary philanthropy and religious humanitarianism. Both Established (Church of England) and Nonconformist (Baptists, Methodists, Congregationalists) congregations organized agencies to deal with the pressing humanitarian issues: poverty, education, and slavery. These activities were seen as a clear articulation of one's commitment to Christ and Christianity.

11. For a description of the relationship between the philanthropy to the poor and proselytizing in the colonies see Susan Thorne, "Protestant Ethics and the Spirit of Imperialism: British Congregationalists and the London Missionary Society, 1795–1925" (Ph.D. diss., University of Michigan, 1990). Comprehensive histories include, H. C. Barnard, *A Short History of English Education* (London: University of London Press, 1947); and Stanley J. Curtis, *History of Education in Great Britain* (London: University Tutorial Press, 1948). For a wonderful discussion of the Sunday School movement

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see, Thomas Laquer, *Religion and Respectability* (New Haven: Yale University Press, 1976). A very interesting set of essays is found in Phillip McCann, *Popular Education and Socialization in the Nineteenth Century* (London: Methuen and Co. Ltd., 1977). I have been especially influenced by Carolyn Steedman's *Childhood and Culture in Britain: Margaret McMillan, 1860–1931* (New Brunswick, New Jersey: Rutgers University Press, 1990) as a model of doing educational history.

12. Although the British state was willing to experiment with various kinds of non-sectarian schools (especially in Scotland and Ireland), good teaching continued to be primarily connected to good character. Naturally, the state felt that evangelicals (both Non-conformists and Church of England) could ensure good character and morality better than any secular Normal School would be able to.

13. An example of this might be treating animals as totemic objects, able to protect and bless humans.

14. George Brown Goode, "The Museums of the Future," *Annual Report of the United States National Museum: Year Ending June 30, 1897* (Washington, D.C.: Government Printing Office, 1898):243, quoted in Jenkins. "Object Lessons," 248.

15. Jenkins, "Object Lessons," 244.

16. Johann Pestalozzi, quoted in H. Holman, *Pestalozzi: An Account of His Life and Work* (London: Longmans, Green, and Co., 1908), 29.

17. Dieter Jedan, *Johann Heinrich Pestalozzi and the Pestalozzian Method of Language Teaching* (Bern: Peter Lang, 1981), 34.

18. Johann Pestalozzi, *How Gertrude Teachers Her Children* (New York: C. W. Bardeen, 1898), 165.

19. Kate Sibler, the most prominent English biographer of Pestalozzi, argues that *How Gertrude Teachers her Children* vacillates between idealist conceptions of self-activity of the human mind and the notion of life as organically ordered. Equally influenced by the empiricist theories of Locke and Hume and the rationalist observations of Leibniz and Kant, Pestalozzi argued that objects which are observed and contemplated form impressions (from the use of one's senses) that are perceived by the mind and understood through forms of thought. Kate Sibler, *Pestalozzi: The Man and his Work* (New York: Schocken Books, 1973), 140.

20. Allen Richardson, *Literature, Education and Romanticism: Reading as Social Practice, 1780–1832* (Cambridge: Cambridge University Press, 1994).

21. Gerald Lee Gutek, *Pestalozzi and Education* (New York: Random House, 1968), 159–60.

22. In the early part of the nineteenth century, the Scottish school system, especially the network of parish schools and teacher training, were at the forefront of British educational development. Teacher training, in particular, was heavily influenced by continental models, thus even the name of the teacher training schools, the 'Normal School' was taken from the French.

23. N. A. Calkins, *Primary Object Lessons*, (New York: Harper & Brothers, 1875), iv.

24. James Donald, *Sentimental Education: Schooling, Popular Culture and the Regulation of Liberty* (Verso: London, 1992), 33.

25 "Now, Mistress, you see five or six children standing and forming half a circle round each Lesson-post, with a little boy or girl sitting on a stool in the middle, and pointing out the objects on the picture board to each of the class. Each post has a different board attached to it, of Lessons on Objects, such as Birds, beasts, Trades, Children's amusements etc. Each class, having named the objects after the monitors, and at the same time, to a certain extent, been questioned by them, at the sound of my small bell, or whistle, move from post to post, until all the lessons are gone over; and as each class

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finishes at the post nearest the door, they then move singing a marching air into the playground . . .” David Stow, *Granny and Leezy*, quoted in John C. Stocks, “Technical Schools and the Teaching of Science in Scotland,” in Heather Holmes, ed., *Scottish Life and Society*, vol. 11 (Scotland: Tuckwell Press, 2000), 225.

26. Morrison, Thomas. “Oral Lessons on Common Things,” in *Object Teaching and Oral Lessons on Social Science and Common Things*, Henry Barnard, ed. (New York: F. C. Brownell, 1860), 46.

27. Isabel Brander, *Kindergarten Teaching in India: Stories, Object Lessons, Occupations, Songs and Games* (London: MacMillan and Co., 1899), 11.

28. Mayo, *Lessons on Objects*, 54.

29. After describing the climactic conditions needed for the cultivation of rice, the students is given a short anthropological lesson on India. “In India, the women thrash and prepare the rice which is a very laborious employment. The Brahmins live almost entirely upon it, their religion forbidding them the use of animal food.” The higher stage of the rice object lesson teaches children about the gendered division of work and the peculiar eating habits of those who practice that peculiar form of social organization called caste. Mayo, *Lessons on Objects*, 111.

30. Mayo, *Lessons on Objects*, 46.

31. Mayo, *Lessons on Objects*, 114.

32. J. Walker, *The Handy Book of Object Lessons from a Teacher's Note Book* (London: Jarrold & Sons, 1876), 41.

33. Rose, Jacqueline, “State and Language: Peter Pan as Written for the Child,” in *Language Gender and Childhood*, Carolyn Steedman, Cathy Urwin, and Valerie Wakerdine, eds. (Boston: Routledge and Kegan Paul, 1985), 97.

34. Rose, “State and Language,” 97–98.

35. By the 1840s, it was clear that there were increasing numbers of schools for the middle classes that offered more ‘practical’ education, but they were separate from the elementary and missionary schools for the working and lower classes. “The list of schools founded for the growing middle class market tells its own story of educational innovation . . . Across the whole sector of education in Britain the census conducted in 1851 revealed that of the nation’s 46,042 schools, 22,214 had been created since 1840.” David McLean, *Education and Empire: Naval Tradition and England's Elite Schooling* (London: British Academic Press, 1991), 22.

36. It is worth noting, again, that unlike Pestalozzi’s continental method, the Perkins use pictures of objects, rather than the objects themselves. This seems to have been quite common in Britain (Stow also used object lesson cards). Rev. James Long, *Handbook of Bengal Missions in Connexion with the Church of England* (London: John Farquhar Shaw, 1848), 407.

37. When missionaries came to India, they found a variety of indigenous learning systems. There were Persian schools catering to Hindu and Islamic students training them for Mughal administrative positions. There were also Hindu religious schools (*tol*) meant to impart Sanskrit liturgical knowledge. But the most widespread rural education was provided by pathshalas which taught rudimentary reading, writing, arithmetic and *zamindari* and *mahajan* accounts. The pathshalas were organized around agricultural work schedules, meeting in the morning and evening so the students could return to the fields during the day. The *tols*, Hindu liturgical schools, and *madrassahs*, Muslim religious schools, offered a higher education in grammar, rhetoric, law, literature, logic, philosophy, medicine and astrology with Muslim theology, Euclid and Ptolemy or Hindu scriptures. The *tols* and *madrassahs* were more dependent on wealthy benefactors and religious elite than *pathshalas* that were strictly local institutions.

38. Calkins, *Primary Object Lessons*, 20.

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39. E. A. Sheldon, *A Manual of Elementary Instruction for the Use of Public and Private Schools and Normal Classes* (New York: Scribner, Armstrong and Co., 1875), 40.

40. The text they gave was "O Lord, How manifold are thy works! in wisdom hast thou made them all: the earth is full of thy riches." Sheldon, *Manual of Elementary Instruction*, 32.

41. Frances Brockway, "Dusky Darling's School, 1909." London Missionary Society, N. India Annual Reports, Box 4 (1907–1909).

42. My discussion of the place of objects in Christianity is heavily influenced by William Pietz's work. Pietz traces the development of 'fetishism' from its earliest uses among Portuguese traders on the African coast to its popularity in religious studies and psychoanalysis. Arguing against any 'universalist' understanding of fetishism, he sees the fetish emerging in the new cultural space created in the trade between Europe, W. Africa, and mercantile capital. Pietz, "The Problem of the Fetish."

43. Pietz, "The Problem of the Fetish, I," *Res* 9, (Spring 1985), 7.

44. Tomoko Masuzawa, "The Ghost of Fetishism in the Nineteenth Century," *Comparative Studies in Society and History* 42,2 (April 2000), 248. For an extended discussion of the relationship between fetishism and the notion of agentive speech within Christianity see Webb Keane, "From Fetishism to Sincerity: On Agency, the Speaking Subject, and Historicity in the Context of Religious Conversion," *Comparative Studies in Society and History* 39,4:674–93.

45. Pietz suggests that African fetishism was putatively arbitrary and fanciful. In some ways Pestalozzi's theory of *anschauung*, sense-perception, arising spontaneously and directly from the objects, seems to parallel this.

46. Ella N. Wood, *Object Lessons for Junior Work* (New York: Fleming H. Revell Company, 1897), 3–4.

47. Davis, 50.

48. *64th Annual Report of the Society for Promoting Female Education in the East* (London: Suter and Alexander, 1898), 15.

49. Miss Budden, "1901 Report to LMS Home Committee from Almora, North India." Reports 1898–1901, Box 2, Council for World Mission Archives, School of Oriental and African Studies, London.

50. Idolatry was consistently criticized by various Hindu reform movements. Both the Brahmo Samaj (from the 1830s) and the late nineteenth-century Arya Samaj were highly critical of and eschewed idol worship. Similarly, in the early twentieth century Swami Vivekananda distanced himself from the mysticism of Ramakrishna and conceived of Vedanta philosophy in monistic and non-idolatrous terms.

51. Rev. Frederic Gmelin, *Adhapanna Paddati: A Manual of Education for the Use of Vernacular Teachers* (Bhowanipore, 1872).

52. John Murdoch, *Hints on Education in India with Special Reference to Vernacular Schools* (Madras: Scottish Press, 1860), 6–7.

53. "Report of the Reverend J. Long on the Normal School at Hooghly." In Appendix A of *General Report on Public Instruction in the Lower Provinces of the Bengal Presidency, 1856–7* (Calcutta: John Gray, 1857), 159.

54. Bhudev Mukhopadhyay was one of the most prominent educational and social reformers in Bengal.

55. In addition to Bhudev Mukhopadhyay's book, the principals of the Calcutta and Dhaka Normal Schools also published teacher training manuals that dealt extensively with object lessons. See, Bhudev Mukhopadhyay, *Sikhavidhyaka Pastava: An Introduction to the Art of Teaching* (Calcutta, 1856); Gopal Chunder Bandhyopadhyay, *Shiksha Pranali*, 3d ed. (Calcutta, 1872); Somnath Mukhopadhyay, *Shiksha Paddhati*, 3d ed. (Dhaka, 1870).

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56. Vidyasagar revolutionized Sanskrit instruction by teaching Sanskritic rules of grammar using vernacular Bengali. "Vidyasagar proposed introducing a European-style Sanskrit grammar in place of the impenetrable Mughadabodha of Vopadeva. Several such grammars were then available in English, but Vidyasagar's vernacular vision led him to propose a grammar that would introduce students to the rules of Sanskrit using 'the easiest Bengali.'" Brian Hatcher, *Idioms of Improvement: Vidyasagar and Cultural Encounter in Bengal* (Calcutta: Oxford University Press, 1996), 96–97.

57. Rajkrishna Bandyopadhyay, *Nitibodh* (Calcutta, 1858), 12–13, quoted in Dipesh Chakravarty, "The Difference-Deferral of (a) Colonial Modernity: Public Debates on Domesticity in British Bengal," *History Workshop Journal* 36 (1993):4. This is almost a direct translation of Chamber's Moral Textbook. "When a people do not work, but live only on fruits or wild animals, they are said to be in a savage condition. Such are the American Indians, the Caffres, and the original people of Australia." Robert Chamber, *The Moral Class Book*, quoted in Hatcher, *Idioms of Improvement*, 120.

58. Ratnashar was clearly a popular object lesson schoolbook, since it had gone into at least eight editions by 1878.

59. *Kamakhacharan Ghosh, Ratnasar: First Part* (Calcutta, 1870), 7.

60. Bhadralok refers to the upper-caste, Hindu male strata of Bengali society, usually employed by the colonial state.

61. *General Report on Public Instruction in the Lower Provinces of Bengal, for 1905–06* (Calcutta: Bengal Secretariat Press, 1906), 23–24.

62. Charles Mayo had hoped to sponsor a few Swiss boys and girls as teachers in Pestalozzi's schools. He expected that these students, after their training, would come to England and teach the poor in the schools started by his organization. Sibler, *Pestalozzi*, 302.

63. Harold Kaplan and Benjamin Sadock, *Kaplan and Sadock's Synopsis of Psychiatry*, 8th ed. (Philadelphia: Lippincott Williams and Wilkins, 1998), 34.

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