RIVAL VISIONS:
J.J. ROUSSEAU AND T.H. HUXLEY ON THE NATURE (OR NURTURE) OF INEQUALITY AND WHAT IT MEANS FOR EDUCATION

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Jean-Jacques Rousseau (1712-1778) and Thomas Huxley (1852-1895) had different, but substantial, effects on the history of education. Rousseau's educational theories supplied the intellectual foundation for pedagogical progressivism. Huxley's educational writings helped to enlarge the scope of the British curriculum to include such things as science and vocational education. Where Rousseau championed child-centered and "natural" education, Huxley championed more and better teacher-centered institutional education.

In addition to their different impacts on education, Rousseau and Huxley had vastly different ideas on a wide range of topics: most notably, the character of "natural man" and whether society tends to produce or lessen inequality. In 1890, Huxley wrote "On the Natural Inequality of Men" as a critique of Rousseau's views on these subjects. In what follows, I will argue that Rousseau's and Huxley's different visions of natural man and the desirability of society can largely help explain their different visions of education and its proper purpose.

Rousseau believed that humans in a state of nature were solitary and self-reliant. Inequality was only introduced later, when individuals lamentably entered into society and became interdependent on each other. Huxley envisioned natural man as an inherently social creature already interdependent with other humans. Rousseau wrote of self-reliance as the ideal state and, thus, education as a protective endeavor whose purpose is to guard the student from dependence on others. Huxley, on the other hand, was a champion of public education—by nature, a social endeavor—whose primary purpose was to prepare students to function in society. The difference in educational vision between Rousseau and Huxley, therefore, may be best explained by their differing appraisals of the desirability of human interdependence.

To preface, it is possible that the differences in these two thinkers' educational views (and worldviews) has to do with their relative positions to the Industrial Revolution. Rousseau wrote on what most historians pinpoint as the eve of the revolution, and Huxley, in its latter years. While it would be interesting to explore whether or how Rousseau's contempt for inequalities resulting from the division of labor, or Huxley's championing of technical education for the working class, were influenced by their relation to the Industrial Revolution, such speculation would take us far afield of this paper's intent. What follows is an exploration of how two very different worldviews

can lead to very different ways of viewing the purpose and value of education. Regardless of how these worldviews were shaped, both Rousseau's and Huxley's divergent viewpoints have lived long after the deaths of their spokesmen into today's world.

ROUSSEAU AND HUXLEY ON THE STATE OF NATURAL MAN AND SOCIETY

While we can say that Rousseau hypothesized inequality to have a social origin, it would be inaccurate to say that Rousseau attributes all inequality to social, rather than natural, factors. At the beginning of his *Discourse on the Origin and Foundations of Inequality Among Men*, Rousseau differentiates between "natural" and "political" inequality.[1] In Rousseau's envisioned state of nature, there did exist natural disparities between individuals. The reason these disparities do not amount to much is that individuals in Rousseau's state of nature were solitary. They, "having no need of one another's assistance… hardly met twice in their lives, and perhaps then, without knowing one another or speaking together."[2] Individuals, then, may have been born unlike in many ways, but there were no inequalities *between* people as there existed no comparison or dependency *between* people by which differences would be compared.

> But even if nature really affected, in the distribution of her gifts, that partiality which is imputed her, what advantage would the greatest of her favorites derive from it, to the detriment of others, in a state that admits of hardly any kind of relation between them?[3]

Rousseau's natural man also existed in a state of complete self-sufficiency, "satisfying his hunger at the first oak and slaking his thirst at the first brook; finding his bed at the foot of the tree which afforded him a repast; and, with that, all his wants supplied."[4] Natural man, as Rousseau conceived him, existed in a state of equilibrium where his needs did not exceed his ability to satisfy them, finding "all his wants supplied" by his own direct effort.

Individuals may have differed physically, but as long as they were self-sufficient, and hence did not interact, individuals knew nothing of inequality. For Rousseau, inequality came about when humans began interacting and therefore (a) became interdependent on one another, and (b) began comparing themselves (and others) to those around them.

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[1] Jean Jacques Rousseau, *The Social Contract & Discourses*, trans. George Douglas Howard Cole (New York: E.P. Dutton, 1920) http://books.google.com (pdf accessed on July 20, 2010), 174.
[2] Ibid., 188.
[3] Ibid., 204.
[4] Ibid., 178.

> [A]s long as they undertook only what a single person could accomplish and confined themselves to such arts as did not require the joint labour of several hands, they lived free, healthy, honest and happy lives, so long as their nature allowed, and as they continued to enjoy the pleasures of mutual and independent intercourse. But from the moment one man began to stand in need of the help of another; from the moment it appeared advantageous to any one man to have enough provisions for two, equality disappeared.[5]

> Whoever sang or danced best, whoever was the handsomest, the strongest, the most dexterous, the most eloquent, comes to be of most consideration; and this was the first step toward inequality, and at the same time toward vice.[6]

There is, however, a dilemma here. Why would natural man, self-sufficient as he is, come to need (or want) the assistance of others? If natural man was content in a state of equilibrium where his wants never outstripped his private ability to satisfy them, then why would he have felt the need to "stand in need of another's assistance"? Rousseau is not entirely clear on this point, attributing natural man's abdication of self-sufficiency to "fortuitous concurrences of many foreign causes"[7] all having to do with the "faculty of self-improvement."[8] Natural man left the state of self-reliant equilibrium, when he began (for whatever reason) wanting to improve his situation.

In large part, this explanation can help us to make sense of Rousseau's contention, made in his earlier *Discourse on the Arts and Sciences*, that the quest for knowledge is a type of slavery. Seeking knowledge vitiates self-sufficiency in two ways. First, when seeking knowledge, the seeker is literally seeking something she doesn't at that moment have; hence her wants outstrip her immediate ability to satisfy them. Next, barring atypical instances where the seeker can teach herself wholly without the need of external sources, the quest for knowledge entails seeking out and relying on something other than herself. In both of these instances, seeking knowledge means vitiating self-sufficiency and connotes disequilibrium between the seeker's wants and present abilities to satisfy them.

To Rousseau, acquiring knowledge beyond that supplied by nature corrupted humans by making them more and more dependent on others and driving them further from the "principles graven on every heart" and "listen[ing] to the voice of conscience."[9]

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[5] Ibid., 214.
[6] Ibid., 213.
[7] Ibid., 185.
[8] Ibid., 205.
[9] Ibid., 154.

Because of Rousseau's emphasis on self-sufficiency, the only quest for knowledge that Rousseau recognized as justifiable is knowledge gained solely through one's own effort without dependence on external sources, hence preserving the learner's self-sufficiency. For instance, while Rousseau writes with general contempt for scientists in his *First Discourse*, he writes admirably (albeit erroneously) of Bacon, Descartes, and Newton, who as "nature intended for her disciples have not needed masters." These thinkers, Rousseau wrote, were to be praised because they were not dependent on "ordinary masters" to teach them, but, "it was from the obstacles they met with at first, that they learned to exert themselves, and bestirred themselves to traverse the vast field which they covered."[10] The praiseworthy ideal, again, was self-sufficiency.

Those familiar with Rousseau's treatise on education, *Emile*, may already see how all of this affected Rousseau's educational vision. Because Rousseau saw natural man as self-sufficient and regarded human interdependence as lamentable, Rousseau's educational program was designed to maintain self-sufficiency in the pupil, eschew learning requiring the assistance of others, and shield the student from social influence. As we will see, this vision contrasts with Huxley in just about every way.

When Huxley wrote "On the Natural Inequality of Men" in 1890, his disagreement with Rousseau had to do with Rousseau's contention that inequality didn't exist in a state of nature.[11] Where Rousseau saw natural man as an individual creature who kept mostly to himself, Huxley's arguments all assumed humans to be social creatures by nature and that, as such, social inequality between people was present even in the earliest humans.

> It is probably true that the earliest men were nomads. But among a body of naked wandering savages, though there may be no verbally recognised distinctions of rank or office, superior strength and cunning confer authority of a more valid kind than that secured by Acts of Parliament.[12]

Later in the same essay, Huxley accused Rousseau's vision of a state of nature where men are solitary as the fruit of an "unscientific imagination," suggesting that "the only uncivilized men [that science has found] are…

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[10] Ibid., 152.

[11] It should be mentioned that Huxley's critique of Rousseau's doctrine was more a critique on the work of writer and political economist Henry George. Huxley believed (sometimes erroneously) that George's positions were premised on Rousseauean ideas and therefore argued against Rousseau in route to arguing against George. See Part II: "Nineteenth-Century British and Continental Critics," in Roy Douglas, "Huxley's Critique from Social Darwinism," *American Journal of Economics and Sociology* 62, no. 5 (1993), 177-198.

[12] Thomas Henry Huxley, *Collected Essays: Methods and Results* (New York, D. Appleton, 1911) http://books.google.com (pdf file accessed July 6, 2010), 309.

enslaved by convention, as strange as those of the most artificial societies, to an almost incredible degree."[13] For Huxley, natural man is already social man, and social man (as long as natural disparities exist between individuals) is not prior to, but in the thick of, inequality.

For Huxley, the fact was that not only are humans born into a social nexus (a family and community not of their choosing), they are born dependents. In an essay called "Capital—The Mother of Labour," Huxley analogized economics, where there exists a division of labor and hence interdependency, with the interdependency found in the natural world. Just as labor is dependent on capital (and vice versa), humans are dependent on food (and when they are young, someone to prepare that food), and the animals or plants used for food are in turn dependent on other animals or plants (or the sun) for nourishment, etc. We are all, in short, dependent on energy, which we must get from outside ourselves.[14]

Huxley was equally troubled by rhetoric that people could be wholly independent or "self-made." As we are all born into a social nexus, we may be able to say that much of an individual's life is of his own making, but we must also recognize that outcomes are also contingent on a myriad of factors beyond our individual control. First, "men said to be self-made are usually those whom nature has especially favoured with costly gifts and exceptional opportunities."[15] From the first, then, individual outcomes are partially dependent on the lottery of nature and luck, neither of which are within the individual's control. Next, an individual's outcomes are at least partly influenced by environmental (and particularly social) factors including (at least) parents and formal and informal teachers.[16]

For Huxley, interdependence was a fact of life rather than, as for Rousseau, an artificial and avoidable convention. This does not mean that interdependence was always a good thing. Huxley, after all, was an evolutionist who believed that the struggle for existence, and the ruthless competition constituting it, were part of the state of nature. This recognition led Huxley towards a much more lionizing view of civil society than Rousseau. His essay, "Evolution and Ethics" was devoted to an explanation of how society (which Huxley regarded as a good thing) came about out of humans' evolutionary struggle for existence. He wrote there that "[s]ocial progress means a checking of the cosmic process at every step and the substitution for it of another, which may be called the ethical process."[17] Where Rousseau lamented social

[13] Ibid., 322.
[14] Thomas Henry Huxley, *Evolution and Ethics and Other Essays* (New York, D. Appleton, 1920) http://books.google.com (pdf file accessed July 7, 2010), 147-187.
[15] Ibid., 365.
[16] Ibid.
[17] Thomas Henry Huxley, *Evolution and Ethics and Other Essays* (New York, D. Appleton, 1920), 81.

conventions for their artificiality, Huxley saw conventions as the noble, and fragile, result of humans themselves subject to natural evolution attempting to transcend that struggle for existence. "In other words, the cosmic struggle for existence, as between man and man, would be rigorously suppressed; and selection, by its means, would be as completely excluded as it is from the garden."[18] Civil society did not introduce competition and interdependency and thus create inequality. Rather, civil society lessened the harsh effects of naturally existing competition and interdependency. It is not the progenitor, but assuager, of inequality.

As an example, Huxley saw the proliferation of technology, based on the division of labor and social interdependence, not as enslaving but as liberating. In a work surveying the then-current advances in science, Huxley notes that they all tend to share a common feature: their tendency to reduce inequality: Gunpowder "tend[s] to abolish the physical inequalities of fighting men," printing "tended to destroy the inequalities in wealth among learning men" and steam transport "has done the like for traveling men." The same, Huxley says, of the telegraph and the newly created telephone. "All these gifts of science are aids in the process of leveling up."[19] Rather than creating more difference between the strong and weak, the invention of better homes, eye-glasses, pulleys, and the like tend to benefit those who are least able to survive without them.

To conclude this section, it should be pointed out that both Rousseau and Huxley see inequality as part of a curse that humans must live with. The curses they had in mind, though, were very different. For Rousseau, the curse that produced inequality was society taking self-sufficient natural man and making him dependent on others. For Huxley, the curse that created inequality was nature itself. Rather than being the cause, society was the solution.

However much disagreement on inequality's origin, both authors thought inequality could be lessened through education. Rousseau's educational methods championed self-sufficiency in its students. If humans have to live in society, pupils can at least be educated so that dependency can be minimized. Huxley championed an education that acculturated students and prepared them to live in civil society. If humans must live with their animal natures, the pernicious effects of these natures can at least be minimized by an acculturating education.

[18] Ibid., 18.
[19] Thomas Henry Huxley, *The Advance of Science in the Last Half-Century*, EPUB edition (Salt Lake City, UT: Gutenberg Project ebooks), 35.

ROUSSEAU AND HUXLEY ON THE AIMS AND PROPER METHODS OF EDUCATION

Rousseau summed up his belief as to the purpose of education quite nicely when he wrote: "We can do much, but the chief thing is to prevent anything being done."[20] For Rousseau, education is first and foremost a "negative, protective process, warding off external evil, that the good native to the child may be free to unfold itself in all its spontaneity."[21]

A key goal of Rousseau's is to create in Emile a student who has reached "a perfect equilibrium between the power and the will"[22] as close as possible to the equilibrium that existed in natural man. Moreover, Rousseau envisioned raising Emile to be independent of other people and untied to any particular social role or function. When discussing the difference between peasants and savages, Rousseau made clear that he wanted to educate Emile to be more like the former than the latter. The peasant, he wrote, "has always done as he was told, what his father did before him, what he himself has always done." The savage is a preferable model for Emile because "he is tied to no one place, he has no prescribed task, no superior to obey, he knows no law but his own will."[23] This is the model Rousseau envisioned for Emile—an independent man who is tied to nothing except his own conscience and reason.

Rousseau's emphasis on self-reliance is also the key reason he advocated Emile learning only through his own inclinations and the natural consequences of his actions rather than being taught by other people. Were Emile taught by others, he would become, as Rousseau saw it, dependent on others to give him knowledge.

> There are two kinds of dependence: dependence on things, which is the work of nature; and dependence on men, which is the work of society. Dependence on things, being non-moral, does no injury to liberty and begets no vices; dependence on men, being out of order, gives rise to every kind of vice, and through this master and slave become mutually depraved.[24]

Thus, to preserve the independence that is the natural state of men, Emile was to be gently (and somewhat invisibly) guided rather than explicitly taught. He would follow his inclinations, learning by his own self-guided

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[20] Jean-Jacques Rousseau, *Emile, or Education.* trans. Barbara Foxley (New York: E.P. Dutton, 1921) http://www.mbportfolio.org (ebook pdf accessed on July 20, 2010), 12.
[21] Thomas Davidson, *Rousseau and Education According to Nature* (New York, Charles Scribner's Sons, 1902) http://books.google.com (pdf accessed on July 20, 2010), 99-100.
[22] Rousseau, *Emile, or Education*, 44.
[23] Ibid., 79.
[24] Ibid., 48.

curiosity and natural consequences, "omit[ting] such knowledge as has no natural attraction for us and confin[ing] ourselves to study such things as instinct impels us."[25] In some instances, Emile's curiosity from time to time had to be strategically piqued, or consequences artificially manipulated by Rousseau but when this was done, it was done slyly so that Emile never catches on or realizes he is not fully in control.

Even Rousseau's choice of career for Emile (who is subtly led to think that he, rather than Rousseau, had chosen it) was chosen on the basis of self-sufficiency. Rousseau determined that Emile should embark upon manual labor because "of all the professions, that of the artisan is least dependent on Fortune." The artisan "depends on his labor alone," where the ploughman, for instance, is a slave by depending on a field, "where the crops may be destroyed by others."[26] This focus would be a perfect career for maintaining natural-man-like self-reliance.

Emile, of course, has to be introduced to society for pragmatic reasons, but entering into social relations is kept from him as long as possible. "Emile is no savage to be banished to the desert. He is a savage who has to live in the town."[27] The purpose of Emile's education is not to acculturate, which would make him dependent and, to Rousseau, unable to reason for himself. Rather, Rousseau desires to educate Emile in a way that will make him immune to society and its dependencies, even while having no choice but to live in society. As we will see, Huxley's vision is much different.

Huxley, as we've seen, regarded society not as a lamentable cause of dependence, but a noble human achievement over the forces of nature. As such, Huxley valued education in large part for its ability to promote civil society.

> For education promotes peace by teaching men the realities of life and the obligations which are involved in the very existence of society; it promotes intellectual development, not only by training the individual intellect, but by sifting out from the masses of ordinary or inferior capacities, those who are competent to increase the general welfare by occupying higher positions; and, lastly, it promotes morality and refinement, by teaching men to discipline themselves.[28]

One could not get much farther from Rousseau's educational vision than this. In the first place, Huxley celebrates education's power to teach students how to be members of society. He also talks of the intellect being "trained" rather than, as with Rousseau, training itself. Lastly, Huxley believed

[25] Ibid., 120.
[26] Ibid., 146.
[27] Ibid., 154.
[28] Huxley, *Collected Essays: Methods and Results,* 289.

one of education's values to be the ability to sort people toward social positions and professions that best suit their competencies.

While Huxley did not deny that nature is a crucial teacher, he believed that its methods were often "harsh and wasteful in its operation." Instead, Huxley supported (we might call it) "artificial education" which could:

> make good these defects in Natures methods; to prepare the child to receive Nature's education, neither incapably nor ignorantly, nor with willful disobedience; and to understand the preliminary symptoms of her pleasure, without waiting for the box on the ear.[29]

Huxley did not envision, as Rousseau did, that teaching students via "artificial education" would render them dependent or subservient. Rather, "artificial education" might strengthen a child's understanding of nature and what it teaches (in a way that understanding some physics, say, may pique a child's curiosity to observe how forces act on objects). And where Rousseau had a faith that nature's lessons would always be appropriate—neither too subtle nor too harsh—Huxley suggested that there were times when nature's lessons were too dangerous to engage in unprepared by "artificial education."

Where Rousseau attributed the creation of inequality to the "want of self-improvement," Huxley saw this want as a crucial factor in alleviating inequality. Education for the poor and women, in fact, was noble in part because it introduced in them a discontentment with their present situation so that they could improve it. Huxley argued against those who wrote that giving the poor "anything like sound and good education will only make them discontented with their station," by reminding readers that when hearing of cases where people have improved their situation, "nobody suggests that there is anything wrong in their being discontented with their station; or that, in their cases society suffers by men of ability reaching the positions for which Nature has fitted them."[30] In championing education for females and the poor, Huxley believed that far from making them dependent or consigning them to slavery, it had the power to liberate individuals to take charge of their own destinies.

DISCUSSION

So, does being educated by others make one dependent and unequal, or grant independence and the power to remove inequality? Virtually without exception, the Western world has followed the vision represented here by Huxley, that education fosters more independence than dependence. Champions of public education (and Huxley certainly was one) frequently invoke "equality of opportunity" as a chief rationale of such education, arguing

[29] Thomas Henry Huxley, *Science and Education: Essays* (New York: D. Appleton, 1910) http://books.google.com (pdf accessed on July 20, 2010), 85.
[30] Huxley, *Collected Essays: Methods and Results*, 252-253.

that to educate is to *free* one from dependency more than to introduce dependency.

Critics of this view, of course, do exist. There has developed a substantial movement in favor of "unschooling" in recent years. Critics of organized schooling such as John Holt, John Taylor Gatto, and Ivan Illich argue along Rousseauian lines that schools unavoidably make students dependent by creating an artificial environment that students must follow, teaching students to subordinate their own interests to interests imposed on them.[31] Education is only compatible with independence if the learner, rather than a teacher, is the prime mover.

Why has the Western world so resoundingly viewed education as a vehicle toward independence rather than dependence? It may have to do with the fact that we live in an interconnected world where exchange and interaction with others is practically unavoidable. Whether we see this interconnectedness as a good thing or as a necessary evil, Rousseau's educational experiment, where the learner is deliberately kept independent of society for as long as possible, strikes us as particularly untenable in our interconnected world.

Secondly, Rousseau's depiction of a solitary human nature was very much disproved after Rousseau's day (and was doubted by many even in his own). Huxley, a biologist, deduced from the then-available evidence that human nature was probably social rather than individual, and subsequent scientific study has confirmed that. Even if one were to suggest that inequality is a product of social interaction, the fact that social interaction was (very likely) present even in the first humans means that erasing inequality by erasing sociality is a dubious proposition.

Lastly, Rousseau's argument that learning from others makes one dependent on others, while capturing a grain of truth, is only a small part of the story. It is true that when one is learning from another, the learner is right then dependent on the teacher for information. It is equally true, though, that once the learner has the information, she ceases to be dependent on the teacher and, by increasing her own knowledge, has gained a certain new measure of independence. Each new piece of information she acquires means she becomes *less* dependent on others rather than more (even if learning from others entails a temporary dependence on them).

In the end, Rousseau and Huxley each had much impact on education's trajectory. Rousseau's ideas (along with Pestalozzi's and Froebel's) influenced the child-centered progressive pedagogy of the 1900s. Huxley's

[31] See, for instance, John Taylor Gatto, *Weapons of Mass Instruction: A Schoolteacher's Journey Through the Dark World of Compulsory Schooling* (Gabriola Island, BC: New Society, 2009); John Holt, *Freedom and Beyond* (Portsmouth, NH: Boynton/Cook, 1995); Ivan Illich, *Deschooling Society* (Bloomington, IN: Calder & Boyars, 2000).

writings and speeches helped to improve educational access for the British working class and to introduce natural science and vocational training into British schools. In a sense, their very different impacts on education reflect their different philosophies: Rousseau influenced a pedagogic movement that aimed at making schools more child-centered and differentiated, while Huxley's influence had more to do with the teacher-centered goal of expanding the scope of what all students must learn. Both, of course, are goals still very much alive in educational thought today.