From monsters to mediators: The evolution of the theme of altruism in early robotic science fiction texts

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Chapter 7: The Steam Man of the Prairies

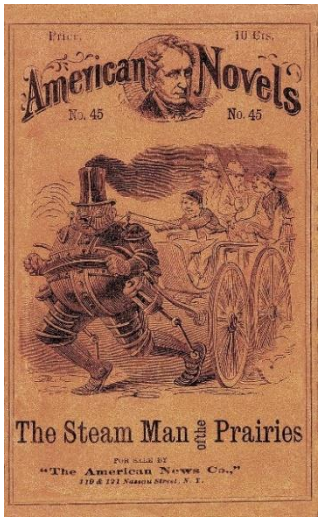

Figure 1 The Steam Man of the Prairies

Edward Ellis' *The Steam Man of the Prairies* (1868) is a dime novel about a young inventor who builds a steam-powered robot; the robot is not autonomous but piloted by the young inventor. The novel proved to be so popular that it resulted in an entire subgenre of dime novels containing young inventors and their fantastic machines, eventually "culminating in Hugo Gernsback's *Amazing Stories* [founded in 1926] – the birthplace of genre SF" (Landon 41). The novel's enduring legacy was due to the numerous "knock-off" versions by competing publishers, "such as Frank Reade, Frank Reade Jr., Jack Wright, Great Marvel's inventors, Frank Edison, Electric Bob" (Landon 41). In all these versions, one finds the same essential narrative of young inventors who invent "a progression of armaments in steam-drawn vehicles" and cause "consequent damage to Indians" (Landon 45). Ellis' inspiration of the contraption, however, is "Possibly based in part on an earlier claimed invention of an ambulatory two-cylinder rotary steam engine called the Newark Steam Man" (Landon 44). Lisa Nocks, in her book *The Robot: The Life Story of a Technology* (2008), discusses the Newark Steam in more detail, and explains that:

> After the Civil War, a team of mechanics in Newark, New Jersey, filed a patent for a mechanical steam-powered walking man that pulled a cart. Zadoc P. Dederick and Isaac Grass demonstrated their invention in January, and on March 24, 1868, they were granted

patent #75,874 for their 'Steam Carriage' […] the carriage was meant to be used as a kind of taxi. In August 1868, *Beadle's Dime Novels* ran Ellis' story in issue #45. (50)

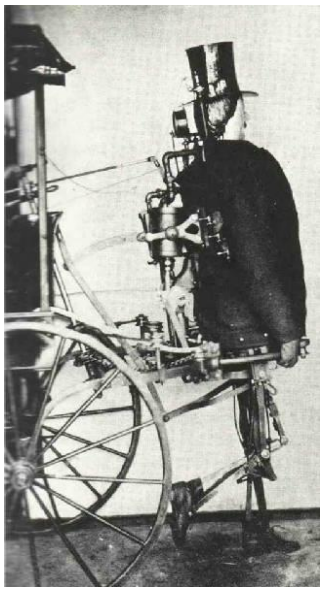

Figure 2 The Newark Steam Man

Such inventions caused great interest when published in newspapers, and reveals that Ellis' novel was participating in the "enthusiasm for technological innovation, and industrial and geographic expansion" (Nocks 50). Although a dime novel, *The Steam Man* had a much longer-lasting effect, given all the spinoffs, but more specifically ushered in the age of the robot in the cultural imagination of North America. As Nocks explains:

> For the next 50 years, reports of inventions of steam men (and subsequently electric men) appeared in newspapers from Ontario, Canada, to the Ohio Valley in the United States. They shared the spotlight with spin-offs and reprints of Ellis' dime novel, and even hoaxed reports of steam men. By the early decades of the twentieth century, the contraptions had been exhibited to thousands of people across the country. Although the inventions ended up in junkshops, and the dime novel readers' interest faded, the steam and electric men phenomenon had contributed to the emergence of the mechanical man as an icon of the future. (50)

In relation to Dederick and Grass' invention, one newspaper article, published on 14 March 1868, explains that the rumors of a steam man are indeed true, but still "far from being perfected" (Scientific American). However, "as soon as the steam man is in a condition to travel," the newspaper promises to explain its workings, and "In the meantime, we advise our contemporaries not to get excited over the steam man, for he is likely to remain harmless for the present" (Scientific American). A follow-up article, published on 21 May 1870, tells a different story: "we saw large posters announcing the greatest wonder of any age, past, present, or future, […] an imitation of the human form divine, impelled by steam" ("The Steam man" 1870). This newspaper article concludes that it is a "curious automaton," but "very much more satisfactory than his predecessor" ("The Steam man" 1870). By 15 April 1893, twenty-three years later, the steam man received a much longer exposition in the newspaper, now also with accompanying pictures, and a sensationalist tone; it is said that the steam man is "6 feet high," cannot "be held back by two men pulling against it," and "is attired in armor like a knight of old" ("The Steam man" 1893).

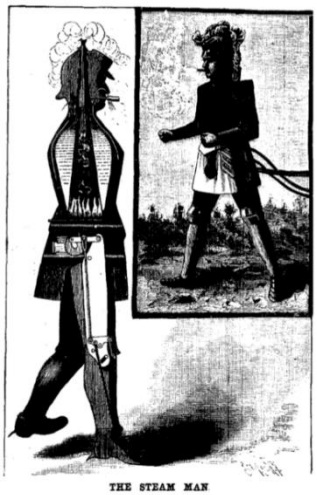

Figure 3 Newspaper Diagram of the Steam Man

Edward Sylvester Ellis was born in Geneva, Ohio, in 1840 ("Ellis, Edward Sylvester"). The son of "famous rifle-shot and hunter," Sylvester and Mary Alberty Ellis, Edward moved with his parents to New Jersey at the age of six ("Ellis, Edward Sylvester"). In 1887, Edward S. Ellis graduated with a "Master of Arts from Princeton College," and was a prolific (and successful) author long before and

after his graduation ("Ellis, Edward Sylvester"). Through the use of many pseudonyms, some of them still "perhaps unknown," and others perhaps even unknown to Ellis himself, makes it difficult if not impossible to trace all his works ("Ellis, Edward Sylvester"). He was a lecturer until the "mid 1880's, after which he devoted all of his time to literature" ("Ellis, Edward Sylvester"). However, from 1860, when his novel *Seth Jones; or, The Captives of the Frontier* was published (and subsequently reported to have sold over five hundred thousand copies), he garnered the reputation as one of the first pioneers of the dime novel ("Ellis, Edward Sylvester"). Although Ellis would write a number of popular works, many of which involve the frontier, it is not clear that he ever visited the frontier himself. His works, however, would have a long-lasting impact on the imaginations of younger minds and avid readers of dime novels.

In his novel, the young protagonist, a genius inventor by the name of Johnny Brainerd, is finishing his greatest contraption yet: a man driven by steam. Johnny encounters a mysterious traveler by the name of Baldy Bicknell. Baldy, who received his nickname as a result of having been scalped by Native Americans, immediately recognizes the steam man's potential to serve on the frontier against hostile Native Americans. Furthermore, Baldy claims to know a secluded and secret location of a river containing large amounts of untouched gold due to hostile threats in the region. Johnny and Baldy then strike an accord to procure the gold. Two companions, Mickey McSquizzle and Ethan Hopkins, who once rescued Baldy, are invited by Baldy to come along on their hunt for gold. Baldy, the experienced hunter and trapper, is familiar with the terrain; Johnny primarily functions as the steam man's machinist; the two companions, Mickey and Ethan, merely serve as muscle and occasional comic relief. During encounters with hostile Native Americans, the steam man manages to terrify and force them to retreat. After a few small digressions (such as having Johnny shoot a bear), the company are eventually ambushed at night but the crew manage an impossible escape after sacrificing the steam man; Johnny overheats the boiler causing an extravagant explosion. The novel closes with the promise that Johnny, with his newly acquired wealth, is

attending the best schools and constructing a new (probably bigger and better) steam man. Readers are advised to keep their eyes on the prairies.

Three dimensions of the novel are important. First, the narrative makes it abundantly clear that it contains no elements of supernaturalism, and inaugurates its own fantastic invention with a lighthearted and adventurous tone.[25] Second, it inaugurates the fictional robot with an overt mind-body duality. Third, the narrative represents several instances of intergroup competition and acts of altruism while such acts serve to only empower one group against the other. In addition, the altruism exhibited in the novel's climax is ultimately a feigned altruism in the service of self-preservation, and also comes at no real cost to any of the protagonists. It nevertheless occurs as the novel's climax and is very suggestive of the altruistic capabilities of machines.

The Machine Without a Ghost

Similar to *Frankenstein's* rejection of supernatural elements (discussed in chapter 6), *The Steam Man* makes it abundantly clear that there is nothing supernatural about this particular robot. As discussed in Chapter 1, the Steam Man more accurately constitutes a mecha or mech in contemporary terminology; it is a kind of robotic device piloted by a human. It merely provides access to unexplored terrains and riches that have previously been barred. For these reasons, the word "soul" never appears in the text. The word "God" only appears as an expletive.[26] The word "spirit" occurs once but not pertaining to any metaphysical quality (it describes the boy's attitude).[27] The word "ghost" appears three times, but actual ghosts never appear in the text.[28] Similarly, the word "phantom" describes the Native Americans, but never any supernatural kind of beings.[29] These

[25] The text frequently depicts such minor humorous moments: "the feet of the steam man began rising and falling with lightning like rapidity, the wagon being jerked forward with such sudden swiftness, that both Ethan and Mickey turned back summersets, rolling heels over head off the vehicle to the ground, while the monster went puffing over the prairie" (9).
[26] "Yer must do it, too, some day My God!" (51).
[27] " […] he was very quick and active upon his feet, and bounded along over the rocks, and across the chasms like a deer, with such a buoyancy of spirits that he forgot danger" (66).
[28] "'It's Baldy or his ghost'. It certainly was no ghost, judging from the manner in which it acted" (3). For the third occurrence see footnote below.
[29] "But they persevered, working with a strange persistency and silence, that gave them the appearance of so many phantoms engaged at their ghostly labor" (113-4).

empirical dimensions of the text illustrate that Ellis' steam man is a thoroughly embodied materialist machine. The major concern in the novel is gold, not salvation. As Baldy exclaims when he sees the steam man for the first time: "It's jest the thing for the West; we'll walk through the Injins in the tallest kind of style, and skear 'em beautiful" (22). The implication is that the machine is a source of cultural superiority towards supernatural/superstitious and religious beliefs.

The narrative also takes delight at making fun of individuals who attempt to attribute supernatural qualities to the machine. When the Native Americans return a second time, they are not as afraid because "their previous acquaintance with the apparatus had robbed it of all its supernatural attributes, and their halt lasted but a few seconds" (75). What is significant is that "supernaturalism" becomes a property of the steam man, something that is not real yet has real influence on the behavior of others towards the machine. When Mickey and Ethan see the steam man for the first time, the narrator points out on the first page: "His [Ethan's] practical eye saw that whatever it might be, it was a human contrivance, and there could be nothing supernatural about it" (2-3). Mickey is somewhat more apprehensive about the machine at first glance as he shies away like a horse "does at first sight of the locomotive" (4). The novel also opens with the religious (or blasphemous) phrase uttered by Mickey: "Howly vargin! What is that?" (1). Later, the narrator compares such first encounters with the steam man by saying:

> It is said that when Robert Fulton's first steamboat ascended the Hudson, it created a consternation and terror such as had never before been known, many believing that it was the harbinger of the final destruction of the world. Of course, at this late day, no such excitement can be created by any human invention, but the sight of a creature speeding over the country, impelled by steam, and bearing such a grotesque resemblance to a gigantic man, could not but startle all who should see it for the first time. (44)

In this scene, the steam man with its passengers race towards an emigrant train, running alongside it for some time. The machine's whistle, despite being simply a whistle, becomes a mythological siren, which "gave forth a shriek hideous enough to set a man crazy," while "the horses and animals of the

emigrant train could be seen rearing and plunging" (45). The men on the train "stood too appalled to do anything except gaze in stupid and speechless amazement" and "one or two, however, […] had sense enough to perceive that there was nothing at all very supernatural about it" (45). The narrator makes it abundantly clear that there is nothing supernatural about Johnny's invention. However, the act of feigning or letting others believe in its supernatural qualities is still presented as a source of joy and empowerment. The novel thus celebrates mechanical sciences, and even presents it as a good deal of fun to be had by those who possess such knowledge over those who do not.

In these moments, there is an implicit message to readers, whether intentional or unintentional. The message is one that (consciously or not) alludes to the concept of Manifest Destiny, as Robert W. Johannsen, in "The Meaning of Manifest Destiny" (1997), explains although initially denoting a "nonviolent" destiny, it became associated in its historical context with territorial expansion (10). During the mid-nineteenth century: "Manifest Destiny combined a fervent, idealistic, even mystical expression of Romantic nationalism with the realistic, practical consequences of extraordinary technological and economic developments as well as an unprecedented movement of Americans to distant parts of the continent" (Johannsen 13). The message is a call for mechanical conformity; those who do not understand the mechanics behind the contraption – who imbue it with supernatural qualities – are cultural defectors, essentially emulating the behavior of Native Americans. Supernaturalism becomes the steam man's source of power towards driving away Native Americans:

> Never was victory more complete. The Indians were thoroughly discomfited, and only too glad to get away after being so severely punished. During this singular running fight the steam man kept up a constant shrieking, which doubtless contributed in no slight degree to the rout of the red-skins. They fired continually at the fearful-looking monster, and, finding their shots produced no effect, invested the thing with a portion of the supernatural power which they had given it at first sight. (97)

The steam man acquires supernatural dimensions through misappropriation. To some, it is a frightful supernatural *other*, like a locomotive to a steed, a monster to the Native Americans, and also something supernatural to passengers on the train. Although merely a prosthetic extension of Johnny, and an invaluable economic asset to frontier travelers like Baldy, the voice of the machine is polysemic. On the one hand, whenever the whistle is blown, it announces the arrival of secular industrialism while, on the other, it also invokes supernatural terror to the uninitiated.

In so doing, the novel also introduces a new kind of cultural conformity: those who buy into the supernatural quality of the machine are deemed to be culturally other, both Native Americans and Europeans. Colonial society has a new cultural code, namely the code of industrial mechanics. Those who convert are promised great wealth and security, while those who do not are destined to live in fear and superstition. Whether Ellis intended this dimension or not, it is clear that with the introduction of this new machine, new cultural boundaries and groups are established.

Beyond the immediate use of the machine by the small company to procure gold, the machine also introduces new group selection pressures. Given the traditional boundaries the text established, namely colonialists vs. Native Americans, it subtly becomes clear that this boundary is no longer absolute. A new internal division appears whereby society is divided between secularists and super-naturalists. As mentioned, when the Native Americans see the machine a second time, some of their superstitious beliefs toward it have subsided, approximating the cultural values of the colonialists, while other Europeans endow the machine with supernatural qualities, thereby approximating the cultural values of the Native Americans. This is the awkward consequence of technology more generally: the utilization of the machine by a few members in actuality results in much greater social transformations at a group level. While the machine empowers individuals, each individual must also reaffiliate themselves accordingly to the new group selection pressures. The whistle is therefore terrifying to both Europeans and Native Americans who believe in supernatural realities. To borrow Rodgers' words (discussed in Chapter 5), the mechanical voice foreshadows a self-organizing system that deemphasizes the individual.

Johnny's Mind-Body Duality

Figure 4 The Steam Man and the Company

Another important feature of the novel is that Johnny's invention helps him to overcome his disability. The narrator introduces Johnny by saying: "If nature afflicts in one direction she frequently makes amends in another direction, and this dwarf, small and misshapen as [Johnny] was, was gifted with a most wonderful mind. His mechanical ingenuity bordered on the marvelous" (13). Johnny may be "humpback" (7), but has "an amiable disposition that made him a favorite with all with whom he came in contact" (13). Johnny never suffers any kind of social isolation as a result of his disability, unlike Frankenstein's creature.

In *The View from Outside Rockwell and Race in 1950*, Jennifer A. Greenhill discusses how "Black skin was linked with stoves, soot, and smoke in a range of media" (79). She turns to Bill Brown's analysis of Ellis' novel:

> This equation is distilled and expanded on in Edward Ellis's circa 1868 novel, *The Huge Hunter or, The Steam Man of the Prairies*, where the black body has actually become the metal machine. Here, as literary critic Bill Brown has noted, the servile mechanized body is racially coded as a finally mastered slave: with smoke billowing out his top hat, the Steam Man has a face 'made of iron, painted a black color, with … a tremendous grinning mouth'. (Greenhill 80)

In his own article, Bill Brown continues to argue that this implicit coding is not merely particular to Ellis' novel, but also applies to other editions of the text, and "invariably he is an enormous black

man" in most of them (131). The fact that the steam man often requires refueling, bringing the party to a halt, is also significant for Brown: "in its occasional moments of breakdown, […] the Steam-Man may be said to embody the threat of the slave's (or the recently freed slaves') violent recalcitrance" (131). Brown goes on to argue:

> More simply, while this technology releases Johnny from the able/disabled somatic binary, it does so only by racializing the mind/body and capital/labor binaries. Which is to say that the novel emancipates man from his body but incarcerates the machine within the American system of somatic semiosis. […] for if the 'natural slave' is he 'who is able to execute with his body what another contrives', then any American machine 'naturally' appears as an American slave, which means: a black American. The novel, participating in this logic, exemplifies Critical Theory's point that technology, far from being dependent on scientific neutrality, is and has been an objectification of divisions within society – in this case, an objectified preservation of divisions that have been politically (if not socially) overcome. (131-2)

Given Brown's observations, the steam man is also racially coded in another mannerism as well. The narrator points out: "The steam man was a frightful looking object, being painted of a glossy black, with a pair of white stripes down its legs, and with a face which was intended to be of a flesh color, but, which was really a fearful red" (6). The intended "flesh color" accidentally resulting in "fearful red" reveals an implicit connection to the Native Americans who are referred to as "red skins" throughout the novel. This additional coding is, as Brown puts it, further objectification of divisions within society. This additional coding gives the Steam Man some cultural ambiguity, on the one hand as a slave, on the other a Native American, but always remains a property owned by the West. The moments of breakdown represent the slave's potential recalcitrance, but the final scene also explicitly mentions the terrifying prospect of the machine being captured by Native Americans, and such cultural transgressions are depicted as life or group-threatening. The inherent quality of being a machine explains its lack of loyalty as much as the machine remains loyal. The threat is never

realized, but the notion that the machine can be captured is always present. From Brown's perspective, the same is true: the breakdowns threaten (symbolizing the slave's recalcitrance), but the threat is never actually realized as such (i.e. such breakdowns are never severe enough to genuinely hinder the company's progress). The machine is a mechanical form of altruism. Similarly in Edgar Allan Poe's story, "The Man that was Used Up" (2015; originally 1839), presents the character of Brevet Brigadier-General John A. B. C. Smith who bravely fought against Native Americans. While Smith is physically handsome, "with the countenance of the marble Apollo" (33), and referred to a "remarkable man" (34), he turns out to be *the man that was used up* when his entire body consists of nothing but protheses. Poe's character is an inverse of the steam man character, as his body has similarly been used up by the war-efforts, replaced with mechanical components, and subsequently (although satirically) celebrated.

Johnny never sacrifices the object for something or someone else, other than for his own survival. However, this is not a genuine sacrifice, as it only serves to concretize and exaggerate the status quo. The trajectories of Johnny's character development is entirely mechanical and circular, symbolizing his own mechanization (albeit expressed in optimistic terms by the narrator). Having achieved his goal of constructing the machine, Johnny is happily constructing a new steam man at the novel's end. Social transgression or social mobility is simply not permitted. In Ellis' text, one is allotted a social position, and like worker ants is destined to stay in that caste. The social position one is allotted may be exaggerated or expanded by technological means, in Johnny's case it involves an upward social mobility, but no possibility for social diversity. Unlike Frankenstein's creature, which undergoes humanization, Johnny remains human/inhuman from beginning to end. Johnny's character thereby emulates the steam man's development, as both remain mechanical and circular.

During one of the digressions, Johnny, alone, leaves the machine behind whilst exploring the landscape on foot. He encounters a bear which he shoots and kills. When he returns, he finds the steam man surrounded by Native Americans who are curiously examining it:

> Several climbed into the wagon, others passed in and around the helpless giant, and one valiant fellow bit him a thwack on the stomach with his tomahawk. His blow hurt the boy far more than it did the iron man, and he could hardly repress a cry of pain, as he looked upon the destruction of his wonderful friend as almost inevitable. (71)

The doubling continues in this scene as the very same man finds Johnny hiding behind a large rock and proceeds to raise his tomahawk to strike Johnny. After shooting the man in self-defense, the others flee and the steam man and Johnny are reunited. Having to fire the boiler up, Johnny hears the Native Americans returning, and in the "nick of time" gets the steam man running (74). A pursuit ensues, and Johnny "in his triumph, could not avoid rising in the wagon, shouting and waving his hat defiantly at his baffled pursuers" (75). He never reflects on his actions or experiences. Rather, in the following scene also involving pursuers and attacks, the steam man runs low on water. It becomes clear that Johnny's moral development mainly consists of mechanical lessons, as he laments to himself: "Why didn't I think and put a pumping arrangement to the machine? I could have done it as well as not, and it would have saved me a good deal of trouble" (80).

Johnny's mind-body duality is premised on the notion that technological prosthetics not only overcomes his disability but actually empowers him to posthuman proportions. Now that the machine exists, there is an ever-present danger that the steam man might be appropriated by other groups as well. This betrays the national group dimension of the text: the technology can actually serve humanity as a whole. On the one hand, Johnny's technological body exists separately and outside of his own body, but still belongs to him. On the other, given the racial coding of the machine, and its doubling as Johnny's posthuman prosthetic body, there is perhaps the very repressed desire of wanting to affiliate with other groups. The narrative teases and plays with the threat of cultural appropriation of Johnny's body, and these moments are as exhilarating as they are terrifying.

Group Selection and Altruism

In his book, *Does Altruism Exist* (2015), David Wilson (discussed in Chapter 5) employs a model with four quadrants in order to illustrate the relations between "the effects on self" and "the effects on others" whilst discussing the worldview of Ayn Rand and others (102). Here, the same quaternary model is used to discuss the relations of characters towards their social surroundings. According to this model, one can classify all types of actions that an individual can undertake in relation to society into four categories:

Individual \ Society	-	+
-	A1 (--)	A2 (+-)
+	A3 (-+)	A4 (++)

The first action, A1, represents the kind of action that is injurious to both the individual and society. The second, A2, represents the kind of action that is injurious to the individual but beneficial to society (these actions qualify as altruistic). The third, A3, represents the kind of action that would be beneficial to the individual but injurious to society (such as selfish behavior). The fourth, A4, represents the kind of action that is beneficial to both the individual as well as the society. A broad consideration of, for example, *The Last of the Mohicans* (1826) shows that all four kinds of actions are present, demonstrating, as the title already suggests, a preoccupation with individual-social interactions and themes. In Ellis' novel, the frontier (and its occupants) have been reduced to a social microcosm, ultimately only permitting two kinds of behavior:

The Company

Steam Man

	-	+
-	A1 (--)	
+		A4 (++)

As far as the company is concerned, all actions can be classified as belonging either to A1 or A4, but not A2 or A3. In other words, instead of representing characters as individual heroes, having to establish or discover their place on the frontier, Ellis represents his characters as belonging (inescapably) to groups, which in turn belong inescapably to frontier politics. By removing the characters' ability to perform A2 or A3 type actions, Ellis amalgamates individual and society in a direct one-to-one relationship; the characters have no autonomy, and all their actions are judged in relation to how the group survives. The same is true for the machine itself. When it breaks down (or requires refueling), the company is exposed and vulnerable. Refueling the machine (attending to its personal needs) is concurrent with refueling the company (attending to the quest for gold). When the steam man functions adequately, its victories are only celebrated as such in relation to the company's victories.

Given the firmly established intergroup relations, one also finds altruism and inner-judges within the company. Inner-judges appear in the text when, for example, Baldy feels that he should reward Mickey and Ethan for having saved his life. Loyalty only exists among the company toward one another. Another instance of inner-judges can be seen at the novel's end, and serves to ensure that Johnny has the proverbial inner voice of humanity. At the novel's end, the threat is at its highest when the company is surrounded by Native Americans, and Johnny is to blame, seeing as though he fell asleep during guard duty. When the others realize their peril, they blame Johnny, but also recognize that his internal punishment was sufficient: "As a matter of course, they were all disposed to blame the author of this; but when they saw how deeply he felt his own shortcoming, all three

felt a natural sympathy for him" (118). According to Howard Bloom, conformity enforcement and inner-judges played a prevalent role in New England during the nineteenth century:

> New circumstances called for new conformity enforcers—highly portable ones—like the Victorian sense of guilt. Your parents didn't shame you publicly, they sent you to your room so your 'penalty for wrongdoing [would] … be exacted internally.' The government locked you in a house of penitence—a penitentiary—where your feelings of remorse would theoretically pummel you without cease. 'Each individual,' one reformer wrote, 'will necessarily be made the instrument of his own punishment; his conscience will be the avenger of society.' (90)

Pummeled by his own inner-judge, Johnny concocts a plan in order to rescue the company. Now that the threat reaches its peak, the company being surrounded, no interactions take place, only indirect competition. Baldy realizes the Native Americans have "outwitted him at last" (116), but their success would not be long-lived. The Native Americans constitute their own equal and opposite group when the narrator describes their silent cooperation, emphasizing twice that: "Not a word was exchanged, even in the most guarded of tones, for each understood his part […] Not a word was exchanged, for each knew what was required of him" (114). It becomes clear that one group is potentially able to appropriate the steam man from another group. When these intergroup tournaments are at their most intense, altruism is at its most invaluable. As a means of reiterating the seriousness of the threat, the Native Americans "had among their number those who had become pretty well acquainted with the steam man, else they would not have laid the plan which they did for capturing him" (122).

Johnny setting the machine to self-destruct is nearly altruistic, in the sense that he sacrifices his own invention, but is also a feigned altruism because Johnny gets to refabricate it, or fabricate a new one, after the novel's completion. The machine caused a "terrible" explosion, like an "immense bomb-shell," which "scattered death and destruction in every direction" (121). Even those Native Americans who escaped unharmed, were "beside themselves with consternation" (121). Thus,

although one finds a number of group selection themes and principles at work here, altruism is still sorely underdeveloped in this narrative as there are no overt scenes depicting such behavior. It may have been heartbreaking for Johnny to sacrifice his contraption, but in this context, does not constitute any real form of A2 behavior.

These discussions illustrate two arguments: Ellis' *The Steam Man* is certainly preoccupied with the question of group selection rather than individual selection. Despite not showcasing a sincere form of altruism, it does provide a scene of feigned altruism in the climax. Secondly, from a literary historical perspective, group selection featured alongside the arrival of this fictional robot in such an overwhelming capacity that individual selection is entirely absent. Although he may not have been aware of all these implications, it is clear that the depiction of Ellis' robot introduced group selection and implicit altruism whilst removing supernatural, uncanny and sublime dimensions from its invention.

Brown's notion that technology "is and has been an objectification of divisions within society" and not "dependent on scientific neutrality," takes on its full significance from a group selection perspective. The system, when confronted by intergroup tournaments, finds itself in need of altruism, and utilizes slave labor as a means of compensating for a lack of altruism. Wilson explains that: "In general, group-level selection always favors low-cost forms of altruism over high-cost forms […] High-cost forms of altruism exist primarily when there is no other way of benefitting the group" (81). Putting it differently, because there are not enough altruists – or altruistic behaviors – slaves are called in as compensation. Slavery might save money in the form of currency, allowing resources to be shifted to where they are needed or desired, yet slavery is ultimately anything but a cheap form of altruism. Subjugating a group of people requires tremendous cultural and social resources to instantiate and maintain. Transcultural sympathies are detrimental to the system: "People who agree with statements such as 'I think it is important to help other people' actually do help other people and work toward common goals more than people who express indifference toward helping other people" (Wilson 129). All empires built on slave-labor will, sooner or later,

discover that the cost outweighs the altruism obtained. This, in turn, leads to a greater demand for altruism, resulting in the acquisition of more slaves, which run up even higher costs, until the system collapses. During these moments, the fantasy of mechanical humans is at its most prevalent, and robotic machines at their most heroic. Nationalism and patriotism are similarly at their sharpest to mask the fact that there is something askew, and terribly unnatural, about the system's own internal organization. From this perspective, Ellis' text exhibits both the anxiety of sincere planetary or transcultural altruism, and the celebration of nationalism, and is entirely utopian. The implication is that the West no longer needs slaves because we have machines. The steam man qualifies as a low-cost form of altruism, while other human slaves are a high-cost form of altruism. Given the abolition of slavery a few years prior to the novel's publication, the text reacts enthusiastically towards the invention of the steam man. The historical invention of the Newark steam carriage, shortly preceding the publication of the novel, similarly promised to become the next source of cheap cultural altruism.

Ellis' text exemplifies these evolutionary dimensions quite clearly, but are certainly not exclusive to this text. What Brown observes as the conflation of the "American machine" and the "American slave" is certainly valid, but it is important to understand that such a conflation is not specific to America. *The Steam Man* merely exemplifies this process within the context of American slaves and American machines. As shown here, the interconnectedness between machines and altruism points to a much deeper property of human evolution. It is a universal evolutionary phenomenon in any culture that utilizes technology or slave labor. As discussed in Chapter 9, the word *robot* derives from the Czech word for forced labor, and was coined in an unrelated cultural context. From these perspectives, one can say that although none of the characters in Ellis' novel are altruists, there is one character who is nothing but altruistic, namely the steam man itself. This is not to argue that the steam man has some kind of subjectivity, but merely to point out that altruism is a ghost in this machine that only found fuller expression when the machines themselves became more intelligent, such as in *Tomorrow's Eve*, discussed below.