

AMERICANIZING THE ROBOT

Popular Culture, Race, and the Rise of a Global Consumer Icon, 1920–60

Dustin A. Abnet

Analyzing both popular and consumer culture, this paper shows how the robot became Americanized in popular culture during the middle of the twentieth century. After the term “robot” emerged in 1921 with the premiere of Karel Čapek’s 1921 play R.U.R. (Rossum’s Universal Robots), it immediately became tied to a larger debate over both Fordism and the Americanization of the global economy. While both sides of the Atlantic understood the play’s critiques of Fordism, Europeans initially understood the robot as a fundamentally American character while Americans understood it primarily in terms of social class. In the late 1920s and 1930s, however, the Westinghouse Electric Company claimed the robot as an American slave through a process of corporatization and racialization. By the start of the Cold War, American popular culture had largely embraced the robot as a key factor in the pursuit of a global consumer empire that continued into the twenty-first century.

Is the robot American? The question is somewhat absurd. The term’s origins in Czechoslovakian playwright Karel Čapek’s 1921 *R.U.R. (Rossum’s Universal Robots)*, and roots in the Czech word for “drudgery” or “servitude” seem to immediately preclude the possibility.¹ The most famous early cinematic depiction of a robot appeared in German director Fritz Lang’s 1927 film *Metropolis*, a film that continues to echo through popular culture well into the twenty-first century. The iconic Daleks of British sci-fi series *Doctor Who* are widely thought of symbolizing tyrannical Nazis for their drive to “exterminate” the human species, a cultural representation that draws on longstanding associations of Germans with automatons that came to a head during Nazi regime.² Since the 1970s, American culture has most frequently associated the robot with Japan, the so-called “Robot Kingdom” that Americans have simultaneously feared, mocked, and revered for its technological prowess.³ Indeed, even the American writer whose stories have played the most significant role in the development of the robot as both a fictional character and a technology, Isaac Asimov, was himself a Russian émigré who, if his memoirs are any indication,

1 On the etymology of robot, see Riskin, *Restless Clock*, 297.

2 Diapalo, “Political Satire.”

felt like an outsider in the country he came to when he was a small child.⁴ The question grows even more absurd if we include within the category of robot such pre-modern ancestors as automatons, golems, and Frankenstein's monster.⁵ Neither the product of Americans nor even entirely of modernity itself, the robot is fundamentally a global icon that has appealed to people across many societies, both modern and ancient. To call the robot American would be to perform an act of cultural myopia and imperialism by denying both how local consumers and creators have deployed it to serve their own needs and desires and how it can speak to seemingly universal questions about human identity.

But there does seem something specifically American about a figure often imagined as an artificial, mass-produced, mechanical humanoid that promises to bring either utopia or oblivion to the world. And indeed, despite its global links, the robot has often served as a symbol through which the world has engaged with American economic, military, and technological power. From *R.U.R.* to the twenty-first century, people have used the robot to critique the development of global capitalism that threatens to turn the world into a replica of the United States. Though rooted in a much longer cultural history and always reflected through local lenses, the robot is fundamentally a modern character deeply tied to the rise of American economic and military might and spread through a popular culture industry dominated by American producers and consumers. The robot isn't an exclusively American character, but it is certainly one whose development has been disproportionately shaped by the country that laid claim to the twentieth century as its own and remains committed to global hegemony.⁶

Both of the first two major popular iterations of the robot—*R.U.R.* and *Metropolis*—emerged from a European critique of the dehumanizing effects of production techniques associated primarily with automobile manufacturer Henry Ford but more broadly with the growing economic might of the United States.⁷ By the 1960s, however, a specific American interpretation of the character as a provider of a global consumer utopia dominated mass media as older corporations such as General Motors and new “robotics” companies such as Unimation promoted robots

3 Schodt, *Inside the Robot Kingdom*. This is a clear example of what scholars have called “techno-orientalism”: Roh, Huang, and Niu, *Techno-Orientalism*.

4 Throughout his memoirs, Asimov noted how estranged he felt from the United States because of his Jewish ancestry and American immigration policy. See: Asimov, *I, Asimov*, 20.

5 There is an extensive literature on the history of automatons but for the broadest look at the subject, see: Kang, *Sublime Dreams of Living Machines*.

6 Henry R. Luce, “The American Century,” *Life* 10, 17 Feb 1941, 61–65; On America's lingering imperial ambitions: Bacevich, *American Empire*.

7 There is an extensive literature on this topic, but in particular: Rodgers, *Atlantic Crossings*, 367–408.

as more efficient workers that could provide families all the consumer goods they desired.⁸ Much of this cultural work was done during the 1950s, as the Cold War spread American visions of a technological future around the globe, but the transformation of the robot into a symbol of the utopian possibilities of consumer capitalism began just before the nadir of capitalism: the Great Depression. In the late 1920s, the Westinghouse Electric Company began to use simple, remotely controlled mechanical men and women to advertise its industrial and consumer equipment. Though not initially labeled “robots” by the company, by the Great Depression they were readily identified as such by American newspapers and popular culture. Robots were not, as initially imagined by Čapek, mass produced biological creatures who eventually rebel due to their alienation, but harmless, personable, even funny slaves that were easy for anyone to control. Amid an economic calamity that raised profound fears about “technological unemployment” and the entire direction of technological development, this message became central to reassuring white Americans’ faith in industrial capitalism. Technology did not have to run amok, Westinghouse’s robots suggested; it could instead become a tamed slave that empowered each individual consumer to become his or her own master.⁹

During the Second World War, this interpretation of the robot as a consumer product receded, but the combination of the Cold War and the growth of the consumer economy in the 1950s enshrined it in American popular culture. Increasingly, however, the robot was not to be tamed by individual consumers, as Westinghouse had proposed, but by corporations and other large institutions which would program the robot to operate in ways that seemed vaguely autonomous, an interpretation that still shapes visions of robots cleaning homes, driving cars, and even protecting and befriending children in the twenty-first century. Continually reimaging and remaking the robot to fit new contexts, Americans turned a figure that initially rebelled against the dehumanizing effects of Fordism into a tamed electro-mechanical slave holding aloft a global empire of consumerism.

Critiquing America

Because it emerged alongside the growth of the global power of the United States, people have always associated the robot with America. The term entered Europe in January 1921 with the first production of *R.U.R.* in Czechoslovakia, but it quickly spread around the globe with the first American production premiering in New York in October 1922. In the twenty-first century, the play’s plot seems clichéd, but

8 On robots as the imagined providers of postwar consumer culture: Elzway, “Technoliberal Machines; Abnet, *American Robot*, 241–70.

9 For a more thorough treatment of the Westinghouse Robots: Abnet, *American Robot*, 131–62.

in the aftermath of the First World War and the Russian Revolution, its story of artificial—but biological—mass-produced laborers and soldiers who gain souls only to revolt and destroy the human species resonated with audiences who found its message both humorous and powerful. Within a decade, its robots had become ubiquitous as they spread beyond the play onto newspaper pages, corporate marketing campaigns, pulp science fiction, and film. What the play and its robots meant, however, were unclear, as different audiences brought their own hopes and anxieties to the stage—and for many observers each of those were tied directly to the growing might of the United States.¹⁰

R.U.R. premiered in Europe amid an ongoing continent-wide debate over what the English journalist W.T. Snead earlier called “the Americanization of the world,” the spread of American industrial techniques, consumer goods, and cultural values to the continent.¹¹ As the intellectual historian Daniel Rodgers has explained, “what struck Europeans most of all in 1920s America was not its commercialism or chaos but its uniformity. Standardization and regimentation ruled.”¹² For many European intellectuals, the degree of standardization found in American consumer goods was clear evidence of America’s fundamental lack of culture and the danger posed by what they termed “Fordism,” the combination of assembly line production with the promise of paying workers high enough wages that they could afford to purchase the standardized goods they produced. As the Dutch historian Johan Huizinga put the argument in his 1926 *Life and Thought in America*, “mass production meant cultural impoverishment.”¹³

Set on an island factory that mass produces seemingly identical humanoid figures whose bodies have been streamlined to ensure maximum efficiency, *R.U.R.* was easy to fit within this larger discourse critical of American economic techniques and power, especially since it is rife with references to the United States. Analyzing the play’s original props, theater scholar Veronika Ambros argued that they “are pieces of a collage that captures...a projected Americanized collective future,” while the employees of the fictional company and the lead female character, the daughter of an unnamed president, seem vaguely American.¹⁴ Čapek has the manager of the robot factory unnecessarily note that the formula for creating the robots was discovered “in the year 1932, exactly four hundred and forty years after the discovery

10 On the play and its larger historical significance: Abnet, *American Robot*, 103–129; Kang, *Sublime Dreams of Living Machines*, 264–96; Riskin, *Restless Clock*, 296–301; Higbie, “Why Do Robots Rebel?,” 99–121; Higbie, *Labor’s Mind*, 115–42.

11 Rydell and Kroes, *Buffalo Bill in Bologna*, 9.

12 Rodgers, *Atlantic Crossings*, 381.

13 Quoted in Rydell and Kroes, *Buffalo Bill in Bologna*, 155.

14 Ambros, “America Relocated,” 140–41.

of America.” According to Ambros, early critics in Prague noted the similarity to Americans while, “in Berlin the robots were integrated among the cultural symbols that marked American culture like jazz, boxing and Chaplin.” As Ambros concludes, Čapek ultimately “relocated America from page to stage” in a way that projected “a dystopian vision of the transformation American values of speed, progress, and success might produce.”¹⁵

Despite its implicit critique of America, the play was a hit in the United States. Though the *New York Times* reviewer intensely disliked the play, the *New York Sun* thought it was a “magnificent melodrama, superbly portrayed and directed.”¹⁶ Across the country, the *Oakland Tribune* identified it as “the best melodrama to be presented on any stage this decade” and “the strongest piece of writing that has graced the American stage in ages.” The famous author and socialist Carl Sandburg equated it to “the strongest plays of Henrik Ibsen.” Favorable reviews appeared in both middle-class publications such as *Colliers Weekly* and *Harper’s Bazaar* and publications of workers’ organizations such as the Pittsburgh Teacher’s Association, the Cigar Makers’ Union, and the Industrial Workers of the World. Such reviewers noted the play’s satire of Fordism but missed the larger critique of America itself. As historian Tobias Higbie has chronicled, many Americans in the aftermath of the Russian Revolution initially understood Čapek’s robot as a symbol of a potentially rebellious working class which seemed to have been dehumanized and regimented by the alienating labor of Ford’s assembly line.¹⁷ As the president of the Philadelphia Rapid Transit Company put it in 1926 while pointing to a copy of *R.U.R.*: “This is what we are coming to—Robotism—if we continue to let men produce like machines, with no more incentive than to increase their speed and to get higher pay.”¹⁸

Though Americans grasped the critique of Fordism in *R.U.R.*, they largely saw the robot in class terms, not national ones. In 1926, Čapek sought to change this in a letter to the *New York Times Magazine* that directly explained his point. The blaring headline captured the core argument: “Author of ‘R.U.R.’ Trembles to See Our Ideals of Speed and Quantity Imposed on Europe, Where Art is Still Leisurely and Where to Live Is More Important Than to Succeed.” Throughout the essay, Čapek, like other European intellectuals of the period, worried that the introduction of America’s particular combination of production and consumption would destroy the possibilities of art and meaningful human connections. “It is possible to say that a European workman is a very inefficient working machine,” he wrote, “but that is so because he is not a machine at all.” He continued to indict not Fordism specif-

15 Ambros, “America Relocated,” 142, 150.

16 Carl Sandburg, “R.U.R.” *New York Times*, 28 Jan 1923, X2.

17 Higbie, “Why Do Robots Rebel?”

18 Virginia Pope, “New Ownership Idea Tried,” *New York Times*, 7 Nov 1926, XX12.

ically but the larger values he saw in American society: “Speed! Rush! That is the new evangel called upon us from across the ocean. . . . A man is not measured except by the index number of his efficiency. I do not know whether America is really living under the whip of this watchword, but this is the slogan which the Americanized Europeans offer to us as a program of progress and reconstruction in Europe.” Čapek never directly connected his robots to America in the piece, but the *Times* editor and illustrator suggested a connection through the combination of headline and illustration. Below a headline about American “Ideals,” the *Times* including a sketch of a car crash on a city street filled with rich and poor, men and women, carrying tools of work while a policeman directs traffic. Every single individual in the scene has a body made of metal, not flesh. In Čapek’s view, the *Times* suggested, all Americans were robots, not just those who toiled along Ford’s assembly line.¹⁹

A year after Čapek’s letter appeared, another European artist made a similar connection between American industrial development and robots, the German director Fritz Lang in *Metropolis*.²⁰ Set in a world divided between a decadent upper class that enjoys luxurious lives of leisure among the clouds and a degraded working class that toils in the dungeon-like industrial factories below, the film’s plot is set in motion when a saintly young woman named Mary begins preach to the masses. In response, the Henry Ford-like leader of the city, John Masterman, hires a scientist to mass-produce a “machine-man” to replace his workers. After kidnapping Mary and transferring her visage to the machine, the two order the doppelganger to inspire the workers to launch their revolution, an act which will assuredly lead to their destruction and allow Masterman to replace his human workers with machine men. The film’s plot, iconography, and robots directly challenged American-style capitalism. As media and science fiction scholar J.P. Telott notes, “For its images of a towering city of the future, filled with airplanes, airships, and streamlined cars, and all efficiently run, like a more extensive version of the giant Ford factory of River Rouge that had lately opened, promise a potential for reworking the world along the lines suggested by then-current industrial practice.”²¹ Lang, however, was even less coy about the Americanness of *Metropolis* than Čapek was with *R.U.R.* The director liked to claim that the film was inspired by his view of the New York City skyline. As historian Victoria De Grazia has written, this was likely a “fabrication,” for the man had dreamed of making such a film for a long time; yet, the claim “was his prideful way of saying that he, the outsider, a European, could render the creativity

19 Karel Čapek, “We Alarm and Amuse M. Čapek,” *New York Times*, 16 May 1926, SM1.

20 The summary of the film and characters are taken from the original 1927 version shown in America, not the German version or any of the modern releases of the film. *Metropolis*, directed by Fritz Lang (1927; Universum Film).

21 J.P. Telotte, “Just Imagine-ing,” 163.

and catastrophic destructiveness of capitalist modernity in a way Hollywood could not.²² Unlike in *R.U.R.*, critics in America did not miss the connection; and they defended both America and its true robots: machines.

The American version of *Metropolis* avoided the term *robot*, but reviews quickly connected the mechanical Mary to Čapek's character, especially the British science fiction writer H.G. Wells, who lambasted the film in the *New York Times* while defending Fordism from the larger European critique. The inventor in the film, Wells caustically noted, "is making a Robot, apparently without any license from Čapek, the original patentee." Linking the play's criticisms to the film, Wells continued to defend Fordism. "Mechanical civilization has no use for mere drudges," he wrote,

The more efficient the machinery the less need there is for the quasi-mechanical minder. . . . The whole aim of mechanical civilization is to eliminate the drudge and the drudge soul. . . . Unless the masses of the population have spending power, there is no possibility of wealth in a mechanical civilization. A vast, penniless, slave population may be necessary for wealth where there are no mass-production machines, but it is preposterous with mass production machines.²³

In Wells's review, the robot was neither the worker nor a threat to the worker; instead, it was his savior, the device that would make possible his elevation from drudge to human being. In short, for Europeans such as Lang and Čapek to question whether the robot could truly save the world was to also question if American capitalism could.

Corporatizing the Robot Slave

Wells's defensive response to *Metropolis* was an early indicator of the direction that popular culture would take Čapek's robot over the next several decades. Though dissent from the utopian vision of American-style capitalism persisted, the most popular mid-twentieth century robots imagined technology as a new form of mechanical slavery that could restore the power of white, middle to upper class men and women over unruly workers and the machinery that increasingly dominated their lives. The company at the heart of these efforts was Westinghouse Electric, which from 1927 to 1940 built and exhibited six mechanical men and women across North America: Herbert Televox, Katrina Van Televox, Telelux, Rastus, Willie Vocalite, and Elektro. Connecting robots to romanticized white myths about slavery, the company transformed Čapek's caricature of America's worship of efficiency into

22 *Grazia*, *Irresistible Empire*, 285.

23 H.G. Wells, "Mr. Wells Reviews a Current Film," *New York Times*, 17 April 1927, 4, 22.

the pinnacle of control and leisure. What started as a critique of America became, by the start of the Second World War, a symbol of its greatest potential.²⁴

Since it had helped light the 1893 Columbian Exposition, Westinghouse had long served at the nexus of technological innovation and spectacle. In 1926, it began its most ambitious efforts yet with the development of a potentially revolutionary new technology: the televox.²⁵ Built by company engineer Roy James Wensley, the televox could receive limited instructions over a phone line via a language of musical notes—human speech was too complex for it to understand—and then switch an attached piece of equipment on or off according to the command. Granting engineers and managers the ability to control the flow of electricity from afar, the televox promised to lessen dependence on unskilled workers and redistribute power over the workplace—whether in the factory or the home—to those in the middle and upper classes. Westinghouse immediately saw the potential of the device to inspire the imaginations of its customers and had Wensley demonstrate it for journalists and would-be buyers.²⁶

Initially, Wensley and Westinghouse did not see the device as a robot or even as a mechanical man; the company simply sat the device on a table and had Wensley demonstrate its capabilities to journalists and middle-class clubs. That changed when the *New York Times* published science and technology editor Waldemar Kaempffert's account of the device. Amid illustrations showing the two conjoined rectangular boxes of the televox with attached jointed arms and legs performing various industrial tasks, Kaempffert noted that the device was an "electrical man," "mechanical slave," and per the sensationalist headline, the "Nearest to a Robot," ever produced. Though Kaempffert admitted that the device remained rudimentary, he was fascinated by the possibilities of remote control technology. "When R. J. Wensley, the engineer who designed this electrical substitute for humanity, demonstrated its capabilities recently by ordering it to light and extinguish lamps, start and stop a fan and vacuum cleaner, and control a motor," Kaempffert wrote, "his audience of sober business men imagined itself for a brief hour in that fantastic world of the future beloved of romancers—a world in which men and women do little more than think and bid automatons to fetch and carry, manufacture the countless things a machine civilization requires, sweep streets, cook, wash and dig ditches." Kaempffert then got to the heart of the device's appeal: "this particular

24 For more on the Westinghouse Robots: Schaut, *Robots of Westinghouse*; Abnet, *American Robot*, 131–62. While these remotely controlled devices would not normally be seen as "robots" in the twenty-first century, they were seen as such before the rise of more autonomous robots controlled by internal programming rather than direct control in the second half of the twentieth century.

25 Nadis, *Wonder Shows*, 63.

26 Schaut, *Robots of Westinghouse*, 19–21; Abnet, *American Robot*, 135–36.

automaton can be called up on the telephone asked questions, and given orders which it obeys without the usual human arguing, impudence or procrastination.” Despite this emphasis on the device’s superiority to human labor, Kampffert justified his enthusiasm for the device in the same criticisms of Fordism found in *R.U.R.* and *Metropolis*. “Man is a highly complex organism....” he wrote. “In a factory, in an artificial environment, he is 90 per cent useless; he does nothing but feed bars of steel into a machine.”²⁷ Much as Wells had suggested in his review, the technological robot was the proper solution to the human robot.

After the publication of Kaempffert’s article, Wensley transformed the televox’s appearance and performance to emphasize both its fantastical potential and Americanness. Scheduling the next performance for George Washington’s birthday, Wensley added a white wallboard cutout of a person to the televox, leaving a hole in the center for its Westinghouse-made, telephone-connected heart. With such a two-dimensional form, the device was transformed from a machine into a caricature of a white, American male. Situating the now-upright humanoid amid appliances, an American flag, and a portrait of George Washington, Wensley demonstrated the now rechristened “Mr. Televox” for the press. At the next day’s official debut, Wensley added a choreographed sequence in which he whistled for the machine to turn a spotlight on the portrait of George Washington before turning the control whistle over to a judge who sounded another signal. As Mr. Televox unfurled an American flag, an orchestra played “The Star-Spangled Banner” as the audience reportedly stood and clapped.²⁸ While such a performance situated the televox as a fundamentally nationalistic device, its caricature of a white American male also satirized the idea that Americans were themselves robotic slaves; this device, it seemed to suggest, was the real robot, not American men.

The press loved it. Stories of the “Mr. Televox, the Mechanical Man,” spread across the country. One headline proclaimed, “Televox, Automatic Servant Works at Master’s Bidding,” while another story noted that “He obeys his master . . . more faithfully than many modern servants.”²⁹ The *San Antonio Light* assured readers that it would be no

more than a decade or so before a person can go to a store and pick out . . . most any kind of automatic man or woman he or she might fancy—an ideal servant or workman who would ask no food or wages but a little current and an occasional drop of oil; or even a flattering admirer could be purchased

27 Walter Kaempffert, “Science Produces the ‘Electrical Man,’” *New York Times*, 23 Oct 1927, XX1; Abnet, *American Robot*, 136–37.

28 Schaut, *Robots of Westinghouse*, 29–30.

29 “Televox, Automatic Servant Works at Master’s Bidding,” *Decatur Review*, 14 Oct 1927, 1.

who would whisper in a neglected wife's ear all the nice things that a busy husband forgets to say.³⁰

The *Light's* joke about the robot's romantic potential highlighted the degree to which the company promoted Televox as a consumer product rather than an industrial one, a focus that became particularly important for the company during the Great Depression when workers, intellectuals, and even politicians openly debated the possibility that the economic calamity was caused by "technological unemployment."³¹

To promote its message of consumer control, Westinghouse turned to the language of racialized slavery. On some levels, Americans had always racialized robot-like creatures. The first automaton in the United States took the form of a Native American.³² Late nineteenth century automatons frequently appeared as grotesque minstrel-like caricatures of Black and Asian bodies.³³ As scholars Gregory Jerome Hampton, Louis Chude-Sokei, and Despina Kakoudaki have illustrated, robots have always been explicitly tied to racialized ideologies of slavery.³⁴ As much as *R.U.R.* updated chattel slavery for the machine age, its robots were not particularly racialized—at least in ways that most audience-members grasped. Indeed, the entire idea that Americans themselves were robots pointed to both a class and national meaning, not a racial one. The Westinghouse robots removed any doubt that in America robots were tied to the country's larger racial ideology. Televox, his gendered female counterpart Katrina, and Telelux, a more three-dimensional robot built to demonstrate the company's photoelectric cells, were very obviously white. Both Mr. (Herbert) Televox and Katrina Van Televox offered two-dimensional caricatures of whiteness while the more realistic Telelux attracted virtually no attention from the media and seems to have only been used by the company for a short period of time, often in the same joking, sexualized ways that Mr. Televox was used. But it was the company's fourth robot, its first built during the Great Depression, Rastus, that solidified the robot's fundamental ties to racialized slavery.³⁵

30 "Romantic Old Maids Can Hear the Words of Love They Long For," *San Antonio Light*, 1 July 1928, 62.

31 On technological unemployment and its connections to robots: Bix, *Inventing Ourselves out of Jobs?*

32 Abnet, *American Robot*, 19–22; "To-Morrow Evening," advertisement, *Independent Gazetteer*, 31 Mar 1788, 3.

33 Barton and Somerville, *Historical Racialized Toys*, 51–59; Abnet, *American Robot*, 50–54.

34 Hampton, *Imagining Slaves and Robots*; Chude-Sokei, *The Sound of Culture*; Kakoudaki, *Anatomy of a Robot*.

35 For more on Rastus, see: Chude-Sokei, *The Sound of Culture*, 50–56; Abnet, *American Robot*, 131–35; Schaut, *Robots of Westinghouse*, 26.

Like Telelux, its white counterpart, Rastus Robot was designed by Westinghouse Vice President S.M. Kintner and engineer Dr. Phillips Thomas to demonstrate how photoelectric cells could read waves of light and respond, much as Televox had responded to sound, by turning switches on and off. But instead of a caricature of whiteness, Westinghouse encased Rastus's electro-mechanical parts in the body of a minstrel-show character with black rubber "skin," overalls, a white shirt, and a pail hat. As Chude-Sokei has pointed out, Rastus also came with "rich, baritone voice" that would have been read as unmistakably black.³⁶ In performances, Rastus would perform the usual turning on and off of appliances, but Westinghouse added another scene to more fully capture his docility: at the beginning of a performance, the human controller would reenact the legend of William Tell by pretending to shoot an apple off of its head.³⁷ A violent act performed on a tamed black body, it highlighted for white audiences just how eager to please this mechanical minstrel show figure was. Whether they were white or metallic, all of Westinghouse's other robots told jokes, but Rastus and its blackness were themselves the joke.

Westinghouse only used Rastus sparingly, but its blackness only underscored the larger rhetoric of slavery that shaped the fantasy the company offered white consumers. Westinghouse executives and engineers consistently romanticized slavery and suggested that its machines could restore slavery to the country and thereby resolve the central problems of industrial capitalism that had plagued the country since the end of the Civil War. In the company's *Electric Journal*, company President F.A. Merrick claimed that slavery had brought "civilization" to the world by enabling "certain strong peoples" to use "the muscles of others to supplement their own feeble strength." Now, he continued, Americans needed mechanical slaves or else there could "be no art, literature, science, leisure, or comfort for anyone."³⁸ In 1927, the journal's editor argued that "Through greater development of mechanical slaves we have achieved the apparently contradictory results of doing more work per man and having more abundant leisure for individual enjoyment and self-development than any other nation." Calling the engineer "the modern slave driver" and "a public servant," the writer claimed that he would be "most likely to employ them [machines] solely for the betterment of mankind."³⁹ Writing in 1930, M. S. Sloan, the president of the National Electric Light Association made the point explicit:

36 Chude-Sokei, *The Sound of Culture*, 51;

37 For example: Philip Kinsley, "'Let Electrons Do It,' Motto for Moderns," *Chicago Daily Tribune*, 27 Nov 1930, 35.

38 F. A. Merrick, "The Machine Myth," *Electric Journal* 30, no. 2 (February 1930): 65–66.

39 Chas. R. Riker, "Our Mechanical Slaves," *Electrical Journal*, 24, no. 2 (February 1927), 53–54.

“The workmen of this country have become bosses and foremen, not of other human beings, but of mechanical slaves.”⁴⁰ Ultimately, Westinghouse’s robots were not just about more efficiently accomplishing work or ensuring greater leisure time; they were a symbol that deployed racialized slavery in ways that could reassure white Americans of their own freedom, their own mastery over both technology and the bodies of others.⁴¹ Čapek’s robot was fundamentally a slave. Real Americans, Westinghouse stressed, were not slaves; they were masters.

It was, in the end, this commitment to mastery over slavery that enabled Westinghouse to fully Americanize the robot, not as a caricature of American citizens as Europeans supposed, but as their technological possession. Though dissenters existed, the most common robot story in American science fiction during the 1920s and 1930s told a story of white men, using their cunning, strength, and willpower to restore their authority over the robots who should be their slaves.⁴² *R.U.R.*’s story of slave rebellion had ended with the robots victorious, but American robot stories typically ended not in human defeat but with heroic victories over would be oppressors. For instance, in physician Miles Breuer’s 1928 novella *Paradise and Iron*, “mathematical robots” are only stopped from enslaving the human species by the actions of a Texas Ranger turned doctor.⁴³ Even the era’s film serials such as *The Phantom Empire* (1935), *Undersea Kingdom* (1936), and *Flash Gordon Conquers the Universe* (1940) pitted white, American icons of masculinity against the robotic slaves of distant dictators.⁴⁴ In 1941, even Superman, that icon of America, defeated robots in the short film *Mechanical Monsters*.⁴⁵ Masters of themselves, nature, other people, and now technology, American men, such stories suggested, could never be robots.

In 1935, Čapek, seemingly responding to devices like those made by Westinghouse, denied all responsibility for what corporations had unleashed upon the world. “The author,” Čapek wrote, “cannot be blamed for what might be called the world-wide humbug over the robots. The author did not intend to furnish the world with plate-metal dummies stuffed with cogwheels, photovoltaic cells, and other mechanical

40 M. S. Sloan, “Power = Prosperity,” *Electric Journal* 27, no. 6 (June 1930): 317–18, 342.

41 On the larger rhetoric of blackness here: especially Lott, *Love and Theft*; Roediger, *Wages of Whiteness*. On the larger rhetoric of mastery and American culture: especially McClay, *Masterless*.

42 For more on the larger fear that machines had gotten out of control: Dinerstein, *Swinging the Machine*, ch. 1. On the larger narrative: Abnet, *American Robot*, 147–49, 189–94.

43 Breuer, “Paradise and Iron,” 86.

44 *The Phantom Empire*, directed by Otto Brower et al. (1935; Mascot Pictures); *Undersea Kingdom*, directed by B. Reeves Eason and Joseph Canem (1936; Republic Pictures); *Flash Gordon Conquers the Universe*, directed by Ford Beebe and Ray Taylor (1940; Universal Pictures).

45 *The Mechanical Monsters*, directed by Seymour Kneitel (1941; Paramount Pictures).

gizmos.” Nevertheless, Čapek continued, it appears, “that the modern world is not inter-ested in his scientific [biological] robots and has replaced them with technological ones. . . The world needed mechanical robots, for it believes in machines more than it believes in life; it is fascinated more by the marvels of technology than by the miracle of life.”⁴⁶ The robot and with it the world, Čapek had regretfully come to believe, had fully Americanized.

It was another science fiction writer, Isaac Asimov, whose response to the Westinghouse robots would captivate audiences in the post-war period and who would fully transform the robot into a tool of American empire. Already a fan and writer of science fiction, Asimov attended the 1939 World’s Fair where he witnessed Elektro, Westinghouse’s most famous and final performing robot. Inspired in part by Elektro’s performance and in part by pulp stories such as Lester del Rey’s “Helen O’Loy”—which imagined a robot purchased at a Dillard’s Department Store and conditioned by soap operas as an ideal woman—Asimov would perfect the idea of the corporate-made, tamed robot slave that Westinghouse had promoted.⁴⁷ Asimov, however, went even further than Westinghouse, whose sexualized robots were distinctly aimed at adults. Asimov’s chief innovation—one that would echo through American popular culture into the twenty-first century—was to imagine the robot as a device safe enough to trust with protecting those most innocent of American consumers: children.

The Robots of a Consumer Empire

By the 1950s, the idea that people needed robotic slaves was well-enmeshed in an American culture that the Cold War spread around the globe. Fusing together a longing for national security with a celebration of what the economist John Kenneth Galbraith called “the affluent society,” the robot captured postwar Americans’ desire for a technological force that could simultaneously protect and provide for them.⁴⁸ As the American military publicly pursued the development of robotic weapons for both defensive and offensive capabilities and American corporations promoted automation in the factory and the home as solution to the problem of degrading jobs, the country’s popular culture increasingly turned to images and narratives of

46 Karel Čapek, “The Author of the Robots Defends Himself”, *Science-Fiction Studies*, 1996, 143.

47 On Asimov’s love of Helen O’Loy: Letter Isaac Asimov to the editor, *Astounding Science Fiction*, February 1939, 159–60. On his debts to Westinghouse: Letter Isaac Asimov to Patricia Warrick, 30 Jan 1978, Isaac Asimov Papers, box 264, Howard Gotlieb Archive, Boston University; Warrick, *Cybernetic*, 34.

48 On the longing for a robotic military in the period: Abnet, *American Robot*, 224–30; Franklin, *War Stars*, 199–210.

robots befriending, protecting, and providing for children. By the 1960s, the trope of the child and the robot was ubiquitous, for it allowed Americans to imagine their own moral innocence in a dangerous but affluent world.⁴⁹

Robots became ubiquitous in postwar American culture because their ambiguous nature enabled them to address both the development of the Cold War and the full emergence of an economy built on mass production and consumption. Still primarily a literary symbol rather than an actual technology, however, the robot remained a contested character. Some continued to understand robots as remotely controlled machines like those offered by Westinghouse. During the Korean War, for instance, a *LA Times* story about the deployment of guided missiles ran with the headline “Robots Rip Korean Reds!”⁵⁰ However, with the emergence of “robot brains”—electronic computers—the press increasingly used the term to refer to technologies that could operate more independently of human control. By the late 1950s, in response to developments such as the Semi-Automatic Ground Environment (SAGE) system, the Associated Press proclaimed that “Robot Brains Being Used to Guard the United States.”⁵¹ At the same time, however, American corporations and the press used the robot to imagine the utopian possibilities of automation. As in military applications, initially these “robots” were depicted as remotely controlled but were increasingly imagined operating autonomously, controlled by the internal programming of computers rather than direct human intervention. In 1959, for instance, Hughes Aircraft presented its “Mobot” as an extension of the worker who would directly wield its robotic arms. That same year, however, Unimation sold its first Unimate robot to General Motors as a “new factory worker” because it could use its internal memory to perform up to two hundred commands.⁵² Deployed by the press, the military, and corporations to fantasize about using new technologies to both protect and provide for Americans, the robot became the ultimate postwar symbol of the possibilities of shifting control from individuals to machines and the people and institutions that programmed them.

Though largely written before the start of the Cold War, Asimov’s robot stories fit perfectly into this world. Asimov’s literary vision continued the transformations in the robot that Westinghouse had begun: the reimagining of the robot as a

49 On this larger point, see Abnet, *American Robot*, 216–40.

50 “Push-Button War Begins: Robots Rip Korean Reds,” *Los Angeles Times*, 18 Sept 1952, 1.

51 Associated Press, “Robot Brains Being Used to Guard United States,” *Beckley Post-Herald*, 18 Jan 1956.

52 “Marvelous Mobot Will Do Work Too Hot for Man,” *Popular Science*, September 1960, 82–83; Alden P. Armagnac, “New Factory Worker: Teachable Robot Can Remember 200 Commands,” *Popular Science*, August 1962, 79. On postwar automation generally: Noble, *Forces of Production*; Nye, *America’s Assembly Line*, 187–216. On Unimation: Elzway, “Technoliberal Machines.”

completely tamed slave that could be counted on to serve, protect, and even befriend people. In “Strange Playfellow” (1940), his first robot story, Asimov imagined a mute robotic playmate of a young girl, so devoted to the girl’s safety that it literally risked its own destruction to save her from a speeding vehicle.⁵³ Over his next several stories, Asimov gradually developed the chief mechanism that enslaved his robots: internal programming of the robot’s “Positronic Brain” done by the U.S. Robot and Mechanical Men Corporation. He dubbed this “The Three Laws of Robotics”:

- 1) A robot may not injure a human being, or, through inaction, allow a human being to come to harm.
- 2) A robot must obey the orders given it by human beings except where those orders would conflict with the First Law.
- 3) A robot must protect its own existence as long except where such protection would conflict with the First and Second Law.⁵⁴

The Three Laws transformed Asimov’s robots into slaves in ways that directly replicated the history of chattel slavery in the United States. As Hampton notes, “On a very fundamental level these laws of robotics are identical to the laws of slavery.”⁵⁵ But they also allowed for more than enslavement. For the literary scholar Alessandro Portelli, the Three Laws are clear metaphors for the disciplining of labor in the service of capitalist expansion. As he writes, “Taken together, the Three Laws guarantee the social stability which is essential to the dynamics of human capitalist and territorial expansion.”⁵⁶ Indeed, in Asimov’s two original robot detective novels, *The Caves of Steel* (1953) and *The Naked Sun* (1956)—to say nothing of his 1985 novel *Robots and Empire*—robots are the key to human imperial expansion into space because they allow people to focus less on drudgery and more on tasks fit for human beings. Despite the seemingly non-violent nature of Asimov’s robots, in the larger context of Cold War America, they connected robotic slavery at home to expansion abroad. To protect, maintain, and extend its power, Asimov’s robots suggested, America needed robots.

53 Isaac Asimov, “Perfect Playfellow,” *Super Science Stories*, September 1940, 67–77.

54 The Three Laws were introduced in “Runaround” and then again in *I, Robot*. Isaac Asimov, “Runaround,” *Astounding Science Fiction*, March 1942, 94–103; Asimov, *I, Robot*, 44–45. This particular format comes from Asimov, “Laws of Robotics,” 424. For more on the Three Laws: Graebner, *Age of Doubt*, 20–22.

55 Hampton, *Imagining Slaves and Robots*, 7. Also, Lavender, *Race in American Science Fiction*, 61. On the connection to the larger industrial economy: Elzway, “Technoliberal Machines.”

56 Alessandro Portelli, “The Three Laws of Robotics: Laws of the Text, Laws of Production, Laws of Society,” *Science Fiction Studies*, July 1980, 154.

Asimov's robotic vision was rooted in Westinghouse's consumerist interpretation, but there was a key difference: Asimov's stories in this period rarely emphasized direct human control over robots. Indeed, many of his stories revolve around seemingly autonomous robots explicitly not doing what they are told. Asimov's robot stories, especially those reprinted in his anthology novel *I, Robot*, were logic puzzles in which human characters and readers attempt to figure out why a robot seemed to be misbehaving; the answer typically was: to protect people, often from themselves. For instance, in "Reason," the robot QT-1 (Cutie), programmed to run a machine that harnesses the sun's energy, refuses to obey the orders of its human controllers because it believes that people are "inferior creatures" who are poorly suited for such a dangerous task. To protect humanity, it disobeyed the orders of specific humans.⁵⁷ While Westinghouse had offered a vision of consumer control, Asimov, like the era's real promoters of autonomous robots, offered a vision of control mediated by programming done by a large corporation. Always controlled but with the appearance of autonomy, Asimov's robots offered the illusion of safety, abundance, and even power without individual responsibility.

Asimov's early work to reimagine the robot was primarily confined to pulp science fiction and mass market paperbacks, but it quickly spread into film and television as well. Throughout the 1950s and 1960s, consumers of American mass media encountered robots that protected children and young adults from the dangers that existed in the world. The most iconic of these protective playfellows was Robby, the star of *Forbidden Planet* and *The Invisible Boy*. In the former, the iconic robot both provided for and protected the virginal daughter of a space colonist; in the latter, it ultimately helped protect a young, lonely boy who directly informed it, "I'd rather play with you than anybody else."⁵⁸ A scene in which a robot saves a child from a speeding vehicle itself became a recurring trope in postwar science fiction, appearing in the *Twilight Zone* episode written by Ray Bradbury, *I Sing the Body Electric*, and the 1964 *Outer Limits* retelling of Eando Binder's original "I, Robot" short story from 1939.⁵⁹ Similar tropes appeared in stories of boys and, occasionally, girls building robots for science fairs or in advertisements for the numerous robotic toys that parents could buy their children in the period.⁶⁰ While many of these toys offered peaceful representations of robots, a growing number of them over the

57 Asimov, "Reason." Originally published in *Astounding Science Fiction*, April 1941, 33–45.

58 *Forbidden Planet*, directed by Fred M. Wilcox (1956; Metro Goldwyn Mayer); *The Invisible Boy*, directed by Herman Hoffman (1957; Metro Goldwyn Mayer).

59 James Sheldon and William Claxton, "I Sing the Body Electric," *The Twilight Zone*, season 3, episode 35 (18 May 1962). *Outer Limits*, season 2, episode 9, "I, Robot," aired 14 Nov 1964, on ABC.

60 Bunte et al., *Vintage Toys*.

twentieth century were militaristic. For instance, in 1960s, the Ideal Toy Company, sold both the peaceful “Mr. Machine” and the militaristic “Robot Commando.”⁶¹

This combination of peaceful and militaristic robotic toys reflected the duality of American robots during the Cold War. Just as American political culture linked American prosperity and economic growth to the expansion of global markets, American robots linked work on factory floors and in homes with military robots that could protect Americans while killing those abroad. In both cases, robots allowed middle- and upper-class consumers to distance themselves from the damage that their consumption and desire for security inflicted on others. As they imagined children playing with kind, protective, robots, Americans could fantasize and imagine a world where neither their security nor their comfort required moral costs. In the Cold War fantasy of American robots, factories would not harm workers; housework would not limit women; soldiers would not have to die. In the American consumer empire, robots would provide all.⁶²

Conclusion: Robots of the World Unite

The robot entered global culture in 1921 as a character critical of the spread of the American production techniques associated with Henry Ford to a war-ravaged and Russian revolution-haunted Europe. By the end of that decade, however, Americans had begun the process of claiming the character as their own though a deliberate process of corporatization and racialization conducted primarily by Westinghouse Electric. Continuing with only the interregnum of the Second World War, the corporatization, racialization, and ultimately, Americanization of the robot culminated in the middle of the twentieth century as the device became central to American imperial and economic ambitions. As real robots increasingly played a role in the American military and in American workplaces and homes, popular culture stories of children befriending robots helped legitimize the global reach of American power.

Of course, not all popular culture robots fit into this mold. Even during the height of the 1950s, writers such as Philip K. Dick challenged the military-industrial hybrid model of robots by suggesting the dangers of relying on the labor of enslaved machines for both protection and comfort.⁶³ In Japan, occupied by America after the Second World War, new robotic visions emerged that drew on American tropes

61 For instance: Martha Weinman Lear, “5,000 Toys—and Most of Them Move,” *New York Times*, 10 Dec 1961, SM17.

62 Abnet, *American Robot*, 236–37.

63 For instance: Philip K. Dick, “The Defenders,” *Galaxy Science Fiction*, January 1953; Philip K. Dick, “Autofac,” *Galaxy Science Fiction*, November 1955, 70–95.

such as the child-protecting robot but transformed them into stories of the country's own survival in its encounter with American empire.⁶⁴ As science fiction presses began to open up to more diverse voices in the 1970s, female, queer, and non-white writers consistently challenged the corporate vision of robots. Though twenty-first century cinema screens and televisions continue to be filled with Transformers, sex robots, *Star Wars* robotic toys, and countless other examples that continue to buttress the combination of military power and consumer capitalism, artists have begun to reimagine the racist and sexist robots of the past in ways that challenge the dominant narrative that Westinghouse established and Asimov extended in the middle of the past century. In music, the Black, queer pop star Janelle Monáe used Lang's *Metropolis* with her starring as an android who launches a slave revolt in the name of love.⁶⁵ Recently, the playwright Lisa Langford has even turned Rastus Robot into a play about racial trauma and memory entitled *Rastus and Hattie*.⁶⁶

But robots continue, as the philosopher Robert Sparrow has noted, to have a race problem.⁶⁷ Part of the issue, as the sociologist Ruha Benjamin puts it, is that "racism flourishes well beyond hate-filled hearts. . . . Let us not forget that databases, just like courtrooms, banks, and emergency rooms, do not contain organic brains. Yet legal codes, financial practices, and medical care often produce deeply racist outcomes. . . . Robots, designed in a world drenched in racism, will find it nearly impossible to stay dry."⁶⁸ In a world of algorithmic bias and systemic racism, robots are bound to be racist because, unlike Asimov's imaginary U.S. Robot and Mechanical Men Corporation, real companies are not isolated from the larger prejudices that shape the world.

But at its core, the robot continues to have a race problem for the same reason that it has a gender problem, a class problem, and a nationality problem: the robot

64 Allison, *Millennial Monsters*, 35–65.

65 Monáe, *ArchAndroid*.

66 Abnet, *American Robot*, 297–98; Yuko Kurahashi, "Exploring the Painful Past: Lisa Langford's *Rastus and Hattie*," Cleveland Public Theatre, accessed 18 Dec 2021, <https://www.cptonline.org/reviews/exploring-the-painful-past-lisa-langfords-rastus-and-hattie/>.

67 Sparrow, "Robotics Has a Race Problem."

68 Benjamin, *Race after Technology*, 60–61.

69 Nathaniel Meyersohn and Kate Traficante, "Why Some Amazon Workers Are Going on Strike on Prime Day," CNN, 15 July 2019, <https://www.cnn.com/2019/07/15/business/amazon-workers-strike-minnesota/index.html>; Matt Simon, "Robots Alone Can't Solve Amazon's Labor Woes," *Wired*, 15 July 2019, <https://www.wired.com/story/robots-alone-cant-solve-amazons-labor-woes/>; Josh Eidelson and Spencer Soper, "Amazon Workers Plan Prime Day Strike at Minnesota Warehouse," Bloomberg, 8 July 2019, <https://www.bloomberg.com/news/articles/2019-07-08/amazon-workers-plan-prime-day-strike-despite-15-an-hour-pledge>.

remains tied to a longing for control. Though Čapek singled out the qualities of speed, quantity, and success in his critique of America, the central element of American life that both *R.U.R.* and *Metropolis* originally critiqued was the accumulation and pursuit of power and control by the elite over nature, technology, and, ultimately, the bodies and minds of other human beings. With the rise of more autonomous robots, control has shifted from direct consumer intervention to the internal programming done by corporations, but the fantasy of control persists. In critiquing the Americanization of the world, the robot initially challenged the standardization and regimentation brought by Fordism. Though Fordism itself may be a relic, the struggle against the Americanization of the world through an industrialized consumer culture persists. When Amazon workers around the globe hold up signs saying that they are human beings, not robots, they are doing so against a fundamentally American company, protesting the global processes of capitalism that threaten to turn everyone into the Americanized robots that Čapek warned against a century ago.⁶⁹

Biography

Dustin Abnet (dabnet@fullerton.edu) is an associate professor of American Studies at California State University, Fullerton.

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