

Jessica Kuskey, “Our Mutual Engine: The Economics Of Victorian Thermodynamics.” *Victorian Literature and Culture* 41. 1 (2013): 75–89.

It is becoming an increasingly accepted critical commonplace that in the Dickens world, a steam boat can become “an enormously magnified insect or antediluvian monster” (*Martin Chuzzlewit*, 1844) as effortlessly as man can acquire “a good deal of train oil in his system” (*Bleak House*, 1853). This image of instability, of energetic volatility, encapsulates the “thermo-dynamism” which Jessica Kuskey’s article, “Our Mutual Engine,” seeks to unleash.

Throughout the central Victorian period, discussions of industrialisation constructed the workplace as an imagined space of porous boundaries, wherein the expending of energy and subjectivity migrated between workers, machines, and the industrial landscape itself. Kuskey conceptualises this persistent renegotiation of industrial subjectivity alongside a recycling of the ‘waste’ implicit in the laws of thermodynamics. The Dickensian characters of *Our Mutual Friend* are constantly alert, Kuskey argues, to the social pressures placed on them “to exert a constant level of purposeful, well-directed energy” (75).

Of course, the nineteenth century was claustrophobically tangled up in a web of energy-laden industrialisation which, in itself, was intimately bound to notions of productive improvement and advancement. In the heat of industrial turmoil, Dickens rapidly came to conceive the self of the industrial age as one whose expending of energy meshed closely to specific scientific, social and economic doctrines. Kuskey’s article explains that “mid-century popularizations” of thermodynamics encouraged Dickens to grapple with such theories in relation to wider cultural and ideological contexts. As a result, he produced a vast corpus of periodical and literary works which energetically bubbled with scientific and social fizz. The Dickensian interrelations between ‘the scientific’ and the social are initially explored by Kuskey in relation to Smilesian discourse. For Samuel Smiles, explains Kuskey, “energy and character are exhibited by the dutiful pursuit of socially useful work.” According to Kuskey, Smiles’s theories interestingly reunite the “cultural conception of energy – the inner will to work hard and push through – with the emerging scientific definition of work meaning mechanical effect” (76).

Rather than reading *Our Mutual Friend*’s overall preoccupation with ‘waste’ in the highly popularised contexts of Victorian filth and sanitary reform, Kuskey resituates the novel alongside the emerging scientific theories surrounding work, waste, and energy. She argues that the novel’s fixation with the “economic and moral stakes of wastefulness” are part of “a scientifically inflected work/waste dichotomy” (77). Building upon Ted Underwood’s important analysis of early thermodynamics in Romantic and early-Victorian literary culture, Kuskey explores how Thermodynamic science leapt to prominence so rapidly in nineteenth-century culture because “Victorian scientists, lecturers, and journalists believed that it ratified a productivist conception of industry they already cherished” (78). Putting forth her Marxist-oriented interpretations, Kuskey explains that the new science of energy was “fundamentally shaped by ideologies including the necessity of hard work, maximization of efficiency, and the moral imperative against waste, all of which predisposed scientists to see the work of an engine in economic and moral terms” (79).

As the discoveries of the new physical science made clear, the fact that ‘energy’ was universally accessible meant that it was up to the individual to choose how to use his or her energy wisely for useful work. Unlike steam engines, ‘human engines’ were expected to focus their energies on the production of moral, as well as economic, utility. This celebration of human will over the unthinking and incessant activity of mechanism recalls the epoch’s wider concerns about the collapsing boundaries between the hybrid human-machine. As a character so tightly connected with the unthinking automaton and the mechanical, Eugene Wrayburn – whose name, Kuskey suggests, is both a close anagram of *engine*, and also associated with images of heat and burning (*Wrayburn*) (81) – has to be taught how to purposefully use and renegotiate the expenditure of his energy for moral good. Before marrying Lizzie Hexam, Eugene’s lazy, ineffective, unproductive outlook on life casts him as an anomaly amidst an array of characters who constantly resist the disorder associated with entropy and the decaying of energetic and economic value.

Our Mutual Friend’s focus on the “recycling, reusing, and repurposing” of energy is part of the novel’s larger concern, Kuskey argues, with “the economic and moral imperatives to minimise and *undo* waste” (82). From the sifters of the dust mounds who transform filth into wealth and Lizzie and Gaffer’s recovery of corpses from the Thames, to Jenny Wren’s industrious conversion of scrap materials into dolls dresses, the characters of the novel all find new ways to reclaim the value ‘latent’ in seemingly wasted materials.

Kuskey’s work is well-situated amidst contemporary cultural contexts, and it likewise reaffirms the importance nineteenth-century scientific thinking had for literary and cultural minds. Kuskey reminds her readers that an intricate critical discourse exists between scientific theory and cultural values, be they moral, social or economic. In short, “Our Mutual Engine” is an article which purposefully directs its readers toward the reciprocal relations surrounding the science of energy and the social ramifications of its (mis)use. It reveals the ways in which thermodynamics and the social values of energy, work, and waste were all products of a shared economic and ideological context.

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