

authority, security and comfort through sacrificing the individual but “bestowing general strength and happiness in exchange for the illusory and mournful independence of solitude” (Ibid. 338-39).

Maeterlinck’s suggestion of the collectivist fusion of individual and state as the final stage of an evolution towards the utopian hive fits the World State in *Brave New World* surprisingly well. There, the “immortal city of the future” is like the super-organism of the beehive, in which most members are infertile and reproduction is centralised in a large artificial structure. The concept of the hive as a single organism was also highlighted by Henri Bergson, whose evolutionary ideas influenced both Karel Čapek and Bernard Shaw, as has been pointed out earlier in this study. In his *Creative Evolution* (1907), Bergson compares the beehive to a body and suggests that “the hive is really, and not metaphorically, a single organism, of which each bee is a cell united to the others by invisible bonds” (Bergson 1944, 183). Contrary to the hope for transcendence in the ‘Creative Evolution’ envisioned by Bergson or G. B. Shaw, however, in *Brave New World* the fusion of the members of society through a superhuman organism greatly limits the individual.

The individual is finally superseded by its function, and the World State fulfils its promise of community, identity and stability through the super-organism of the hive as the ultimate conclusion of utilitarian logic. While earlier analogies to ants and bees in English literature had a rather positive connotation, celebrating industry, discipline and self-sacrifice, in the twentieth century the hive metaphor is mostly used in dystopian works that express the fear of totalitarianism and the loss of individuality. In *Brave New World* this can be seen as emblematic for a shift in values in the context of modernity, from subordination and faith in social predestination towards the defence of individual freedom and a deep scepticism regarding the state and its power. Whereas the conformist Lenina finds it horrible and incomprehensible that there is someone “not wanting to be a part of the social body” (78), the novel mainly follows Bernard Marx and John the Savage as two characters who are too individualistic to be a mere “cell” in the collective organism. Anyone who does not fully merge into the state-organism, who is “[n]ot just a cell in the social body” (*BNW*, 78), however, is doomed in the brave new world. Closely related to the hive analogy in the novel, confinement of the human individual on the basis of a predetermined role is exemplified in a strict caste system that builds on the possibilities of artificial reproduction.

The Bio-Social Caste System

In analogy to the specific function of organs, the social body of the World State in *Brave New World* is a composite of separate but interdependent castes that fulfil different social functions, which has models in biology and human society. Aldous Huxley’s vision of a rigid caste system can be considered a digestion of philosophical and literary traditions and his specific biographical context and interests. Huxley was confronted with the Indian caste system on his way to America, and in his travelogue *Jesting Pilate* (1926) he describes it in unflattering terms. For Huxley this system of social predestination was part of a fatalistic form of spirituality that supported a questionable stability at the price of social, economic and political progress (Huxley 1948, 109). It reminded him of the hereditary social structure in medieval Europe and in

an interesting analogy Huxley calls it “a kind of social Calvinism” (Ibid. 115), which could be associated with social Darwinism but also points to the idea of metaphysically justified determinism.

In *Brave New World*, the religious idea of predestination that is so dominant both in Calvinism and the Hindu caste system is transformed into a new, materialistic form of predestination through the artificial production and massive conditioning of the population. The religious underpinnings of Calvinist predestination and the Indian castes¹¹⁴ are unnecessary for the classifications of fertilised human eggs in the “Social Predestination Room” (*BNW*, 7), or rather substituted by the new creed of maximum efficiency. Akin to ‘soma’ as materialistic substitute for religion or “Christianity without tears” (210), the caste system of the brave new world lacks spirituality, but it also seems to lack suffering.

One of the most disturbing aspects of *Brave New World* is that the early bio-social stratification through artificial creation is presented as necessary for a world of plenty and peace, which can be seen as a critique of utopian thinking in the age of modern science and technology. Utopian literature abounds with caste systems, from the ideal city in Plato’s *Republic* to Wells’ kinetic world state in *A Modern Utopia*, and in “The Outlook for American Culture” (1927) Huxley seems to revisit their ideas in his musings on the ideal state. Huxley’s vision of the “evolution of a new social hierarchy”, according to “different psychological types” (*CE III*, 193), is reminiscent of both Plato’s tripartite structure of the human psyche and ideal state and Wells’ evolutionary transformation of it.¹¹⁵

Published shortly before *Brave New World*, Huxley’s essay “Boundaries of Utopia” (1931) ironically considers a future utopia that has overcome the exploitation of humans, due to an industrial caste system in which “the machine is the only ‘other

¹¹⁴ In his landmark essay “Science and Civilization” (1932), Huxley clearly confirms the conceptual link between the traditional Indian and his scientific caste system: “...a scientific civilization society must be organized on a caste basis. The rulers and their advisory experts will be a kind of Brahmins controlling, in virtue of a special and mysterious knowledge, vast hordes of the intellectual equivalents of Sudras and Untouchables” (*CE III*, 154).

¹¹⁵ Plato’s *Republic* (ca. 380 BC) can be considered the first political utopia in Western culture and has been tremendously influential for utopian literature as a way to imagine alternatives to existing societies (Vieira 2010). Accordingly, Plato’s *Republic* has served as an influential backdrop for many later philosophical and literary works on alternative states, including Thomas More’s *Utopia* (1516), H. G. Wells’ previously discussed *A Modern Utopia*, and *Brave New World*. The social structure of Plato’s ideal state is based on the supposed tripartite structure of the human psyche (reason, spirit, appetite) and is therefore considered the most reasonable, just and natural one. Among the most obvious similarities with Huxley’s novel are the caste system that is supervised by a rational philosopher, the use of eugenics and censorship, the primacy of community, and the importance of dialogue in the text to reflect on the condition of a harmonious, stable society and a good human life. See Plato (2000). Peter Firchow maintains that “[t]he chief difference between Plato’s philosopher king and Huxley’s world controller seems to be that the latter is able to exercise his authority with much greater flexibility” (1984, 115), which is mainly due to the technology at his disposal. Tsjalling Swierstra (2012) argues in a similar way that “the missing piece to the Platonist puzzle” is technology, which provides the means to create a harmonious state in a very materialistic sense: “Brave New World is Platonism democratized, Platonism for the masses, Platonism industrialized, Platonism realized, Platonism 2.0 – finally” (275).

person' at whose expense we can have things with a good conscience" (*CE III*, 125). Indeed, the reader gets a glimpse of a utopian future in which robots serve humanity: "Served by mechanical domestics, exploiting the incessant labour of metallic slaves, the three-hundred-a-year man of the future state will enjoy an almost indefinite leisure" (*Ibid.*). This view bears obvious resemblance to Čapek *R.U.R.* and similar SF visions, in which the artificial human functions as a new kind of slave that elevates the natural-born human to a higher class. However, in "Boundaries of Utopia" Aldous Huxley predicts that such progress through humanoid robots will not make people happy in the long run, because the increase in wealth, leisure and freedom would eventually lead to boredom and unhappiness. Instead, he concludes that the only realistic prospect for a stable utopia is to change the human being "[b]y deliberate breeding and selection" (*CE III*, 129), which is essentially the price of utopia.

In *Brave New World* the expectations of his essayistic "Boundaries of Utopia" are met in the artificially created citizens who live in the rigid matrix of a caste system, in which everybody has their allocated socioeconomic place and function. The artificial maturation and birth is essential for the utopian idea of happiness, as the director of the human hatchery explains: "...that is the secret of happiness and virtue – liking what you've got to do. All conditioning aims at that: making people like their social destiny" (*BNW*, 12). As cells in the organism of the World State the citizens instinctively know their place, which is not only achieved through their prenatal biochemical, but also their postnatal, psychological conditioning.

The integration of the artificial humans into the socio-biological body as tiny functional parts is closely linked to central ideas of behaviourism. This is most obvious in the procedures of "neo-Pavlovian conditioning" (*BNW*, 43) in chapter two of the novel and the character of the emotional engineer Helmholtz Watson, whose name points to two highly influential scientists. The character name combines the nineteenth-century scientist Hermann von Helmholtz, famous for his research on physiology and the concept of equilibrium, and John B. Watson, the best-known successor of Ivan Pavlov with his advancement of behaviourism. Building on the research of Russian physiologists such as Pavlov, the American John B. Watson defined behaviourist psychology as a "purely objective experimental branch of natural science" with the goal of predicting and controlling behaviour (Buckley 1989, 74). Watson was strongly influenced by Darwinism and did not accept a dividing line between man and animal in the basic principles of behaviour as response to stimuli from the environment, first experimenting with animals but finally turning to the baby "Little Albert" to prove his point (*Ibid.* 40, 75, 122). In the society of *Brave New World*, unethical conditioning through the science of behaviourism is as important as the initial moulding through biochemistry for producing the desired citizen.

In the analogy of the World State as organism, one could argue that in *Brave New World* the human being is considered a kind of stem cell which is turned into a specialised cell with a certain function in the social body. A similar idea can be found in the claim that John B. Watson made in his influential book *Behaviorism* (1930, revised edition):

Give me a dozen healthy infants, well-formed, and my own specified world to bring them up in and I will guarantee to take any one at random and train him to become any type of specialist I might select [...] regardless of his talents, penchants, tendencies, abilities, vocations, and race of his ancestors. (Watson 2004, 82)

Behaviourism provides the philosophy for artificial creation in *Brave New World*, while applied biology provides the means to create and form humans from the first cell. The materialistic equation of psychology and physiology in early behaviourism is central to the formation of the citizens in the novel. Furthermore, it also relates to its iconic use of Sigmund Freud in the text. Although behaviourists tended to disapprove of the famous psychoanalyst as unscientific, his prominent mention in *Brave New World*, for example in “Our Ford – or Our Freud” (*BNW*, 33), is noteworthy in the context of the World State as a stable super-organism. Huxley critically discusses Freud’s impact in several essays, particularly in “Science and Civilization” (1932), where he argues that Freud’s insights in combination with behaviourism showed the world the possibility of an early and permanent conditioning of humans (*CE III*, 151).

Similar to the Fordist revolution in mass production, the Freudian revolution in approaching the human psyche is suggested as an important step towards the artificial human in Huxley’s vision of the future. In the early twentieth century, Sigmund Freud famously confronted the world with a model of human nature in which rationality is only the tip of an iceberg of a vast and powerful unconscious that secretly drives the human being. His proclamation that psychological research is about to demonstrate to the human ego “that it is not even master in its own house” was comparable to Darwin’s blow to anthropocentrism – a self-confident comparison that Freud made himself (Freud 1916, qtd. in Weinert 2009, 186). In his study *Copernicus, Darwin and Freud* (2009), Weinert seconds Sigmund Freud in his claim: “If the Copernican and Darwinian theories are reasonable representatives of scientific revolutions, Freud’s theory is a candidate for a revolution in thought” (185). Indeed, although the Freudian perspective has never attained the scientific credibility of the heliocentric or evolutionary view, it can be considered as revolutionary, which *Brave New World* ironically incorporates as background to the artificial Eden of instant gratification.

In *Brave New World*, Sigmund Freud becomes part of the final revolution that turns the human being into a living product of the environment, with which there is no conflict anymore. In the world of the novel, Freud’s focus on subconscious forces does not contradict but rather supports the control of human nature, especially considering the Freudian view of sexuality, family and religion. Related to Sigmund Freud’s emphasis on humans as sexual beings, his criticism of the traditional family, and his suggested disconnection of sex and reproduction, the mention of Freud in *Brave New World* is also significant for Huxley’s critique of utopia as prescribed happiness. In *Civilization and its Discontents* (1930), Freud claims that “two urges, the one towards personal happiness and the other towards union with other human beings must struggle with each other in every individual”, which he links to the repression of the libido by the individual and cultural super-ego (Freud 1962, 88). With its policy of releasing instead of repressing the individual libido to create social cohesion, the cultural super-ego of the World State seems to reconcile a stable social order with the pleasure principle. To maximise pleasure/happiness and minimise pain is the classical principle

of utilitarianism since Jeremy Bentham and Stuart Mill (Adams/Dyson 2007, 107-8, 135-36), which is taken to extremes with the social and biological engineering of the citizens in *Brave New World*.

The notion of a dictatorship that ensures happiness through the utilitarian application of the pleasure principle is also a key difference to other famous dystopias that rather use the denial of human desires (e.g. sexual) as instruments of control, as in Yevgeny Zamyatin's *We* (1924) and George Orwell's *Nineteen Eighty-Four* (1949).¹¹⁶ Contrary to Orwell's view of totalitarianism, however, Huxley's rulers are not sadistic but rather benign dictators who use the biosocial soft power of ectogenesis, conditioning and happy drugs, instead of surveillance, batons and the torture chamber. The question which scenario is more plausible, social control through tension or its prevention, has been a subject of debate ever since.¹¹⁷ After reading *Nineteen Eighty-Four*, Huxley wrote in a letter to Orwell that he expects even such a dystopia would change into a brave new world in the long run, "as a result of a felt need for increased efficiency"

¹¹⁶ The Russian novel *We*, first published in English, forms an influential trinity in twentieth-century dystopian literature with *Brave New World* and *Nineteen Eighty-Four*. The body of cross-referencing literature written on these three novels is vast, but for a concise comparison of Huxley's and Orwell's dystopias with reference to Zamyatin's see e.g. Firchow (1984), 117-28; see also Booker (1994), 25-89. As a satirical critique of the early Soviet Union, *We* is set in the dystopian, urban 'OneState' of the twenty-sixth century, where citizens have numbers instead of names and exist as roles rather than individuals. In his seminal history of utopian literature, Krishan Kumar considers Zamyatin as an indirect link between the utopias of H. G. Wells and the anti-utopias of Huxley and Orwell (1987, 227-29). Orwell himself suggested the influence of *We* on *Brave New World* due to their similarities and considered Zamyatin's vision as more realistic, because it better grasped human irrationality and the violence of totalitarian systems, compared to the peaceful state in Huxley's novel (Orwell, in Watt 1997, 332-34). Aldous Huxley flatly denied having read *We* and pointed to H. G. Wells as a mutual inspiration instead, but he certainly knew of Zamyatin's criticism of collectivistic Russia as a brave new world. In the context of the potentially creative scientist as benign dictator in *Brave New World*, Huxley's discussion of Zamyatin's report on Russian theatre is revealing. In the essay "New World Drama" (1932) Huxley predicts that when the state becomes the "universal foster mother", conflict-laden themes such as God, the soul, and the struggle of the individual with society will be abolished to keep social harmony, and accordingly, "the new Shakespeare will probably decide to take up biochemistry or physiology" (*CE III*, 337).

¹¹⁷ See for instance Orwell's review of *Brave New World*, Huxley's commentary on Orwell's dystopia, and his comparison in *Brave New World Revisited*. Both visions could be seen as two parallel dystopian strands, with Orwell's novel mainly extrapolating Russian communism of the Stalinist kind and Huxley's text envisioning a new state capitalism, primarily based on American culture. The latter view is also central to Theodore W. Adorno's influential essay "Aldous Huxley and Utopia" (1955, orig. "Aldous Huxley und die Utopie"), which considers *Brave New World* as an anti-utopia that extrapolates capitalist principles, particularly in the form of American consumer culture. Adorno argues that the novel can be read as a rationalisation of the fear of the intellectual individual, who is faced with "the machinery of the universally developed commodity relation", which he considers to be a serious threat as well (Adorno 1981, 98). For the German philosopher, however, Huxley's narrative has a conservative outlook, in which "the bettering of the world is made a sin" – an anti-utopian proposition that Adorno refuses: "Man's choice is not between individualism and a totalitarian world-state" (117). With his final novel *Island*, Huxley himself offered a similar middle position, in which harmony through social control does not crush the individual.

(qtd. in Bedford 1985, 491). In *Brave New World*, the latter road is paved by the introduction of the conditioned, artificial human as a citizen whose craving of power over itself or others has been greatly reduced.

Brave New World is clearly informed by the controversial discourse of “improving” humanity in the early twentieth century and can be seen as a literary statement on the ideas of artificial selection and breeding. In contrast to the idea of the superman or a supposed “master race” that haunts the early twentieth century, however, Huxley suggests that a stable society needs limitation rather than expansion of gifted and ambitious citizens in order to avoid social unrest. Several years before *Brave New World*, and again referring to his observations in India, the author argues in “A Note on Eugenics” (1927) that a society of high potentials is not only unnecessary but also dangerous, because such a eugenic utopia would lead to a state of “chronic civil war” (*CE II*, 284). At the end of his essay, Huxley even predicts that “[a] state with a population consisting of nothing but these superior people could not hope to last for a year” (*CE II*, 285), which reappears in *Brave New World* with the failed “Cyprus experiment” in which a society of superior Alphas quickly turn on each other (*BNW*, 196-97). In *Brave New World* the solution to a stable eugenic state lies in the limitation of potentially great individuals to a small number, which has clear evolutionary implications.

In contrast to Stapledon’s vision in *Last and First Man*, Shaw’s ‘Creative Evolution’ or the hopes of Julian Huxley’s ‘evolutionary humanism’, the artificial production of human life in *Brave New World* does not foster but prevents the gifted and ambitious citizen as standard. This can be seen as a socio-biological adaptation to prevent unrest and change in human society at its root – the mismatch of the potential of the individual, its environment and social role. In the novel, the suggestively named Mr Foster and the Director of Hatcheries agree that the artificial maturation process should be made more efficient, especially for the lower castes, in which high intelligence is neither needed nor wanted. Their reference point is the much faster physical development of animals that humans seem to have lost due to “abnormal endocrine co-ordination”, which is traced down to “germinal mutation” (*BNW*, 11). Due to the gospel of economic efficiency, ordinary human characteristics such as long physical development are presented as a harmful genetic mutation, which must have crept into the species’ genome during the evolutionary process from animal to *Homo sapiens*. Since this prolongs the time by which the low-caste workers can fulfil their role as working animals, their further degeneration is a way of increasing efficiency in the brave new world, which stands in ironic contrast to the fin-de-siècle fear of evolutionary degeneration.

With neo-Darwinist underpinnings, *Brave New World*’s satirical inversion of standards of normality extends to biological norms. While H. G. Wells’ scientist Dr Moreau tries hard to avoid a reversion to the animal nature of his artificial humans, the scientific creators in *Brave New World* are concerned with the opposite question: “Could the individual Epsilon embryo be made to revert, by a suitable technique, to the normality of dogs and cows?” (*BNW*, 12). In chapter six of the novel, the Epsilon liftman is described as a “small simian creature” that serves the other members of the community with “doggily expectant adoration” (50), which suggests that he is perfect for the job, due to his artificial prenatal degeneration. The transformation of the lowest

social strata into humanoid animals in *Brave New World* does not derive from the sadism of mad scientists, but stands in an interesting relation to work and happiness as key themes in utopian fiction of the late nineteenth century.

The analogy between social and biological diversification that is so central in *Brave New World* was famously proposed in Wells' dystopian *The Time Machine*, but also in Edward Bellamy's influential utopia *Looking Backward: 2000-1887* (1888). Whereas *The Time Machine* locates a bio-social differentiation in the future, *Looking Backward* presents it as the mark of an unhappy, pre-socialist society that will be overcome. Looking back into a darker history, the future citizen remarks that in the nineteenth century the high education of the elite and the ignorance of the mass "made the gap between them almost like that between different natural species" (Bellamy 2007, 130). The gap between the elitist Alpha caste and the cloned mass of the Deltas and Epsilons in *Brave New World* almost constitutes different species as well – this time, however, to ensure the utopian harmonisation of efficient industry, social stratification and general happiness.

The discursive biologisation of class stratification is put into practice through the artificial, caste-based reproduction in *Brave New World*, but the behaviour of the ape-like Epsilon shows no trace of a class struggle or other struggle for existence. Applying the terminology of the Marxist philosopher Antonio Gramsci, one can argue that the 'hegemony' of the ruling system as a social equilibrium is totally internalised in the population. In *Brave New World* hegemony is literally "born in the factory" – a phrase that Gramsci uses in "Americanism and Fordism" (1934) in regard to the changes through Fordist mass production in the early twentieth century (Gramsci 1972, 285). In Huxley's Fordist World State, the general consent is engineered on all possible levels, not only through mass media, sleep-teaching, propaganda and behaviourist conditioning, but primarily through an artificial degeneration of the lower classes through artificial reproduction.

In *Brave New World*, degeneration to a simian state is no threat to society but ensures that the underclass is docile, which stands in contrast to previous ape-like characters in English literature, such as Stevenson's Mr Hyde or Wells' Morlocks, whose devolution comes with bestial aggressiveness. That backward evolution could be a pacifier instead of a threat is a proposition that Huxley not also employed as a fictional device but also suggests in his non-fictional *Encyclopaedia of Pacifism* (1937). Refuting social Darwinist claims that war is a natural outgrowth of the evolutionary struggle for survival, the author asserts that according to the latest research, "man's ancestor was not a gorilla-like ape, but a gentle, sensitive creature, something like a tarsier" (Huxley 1937, 8). The Epsilons of his anti-utopia are not exactly sensitive creatures, but considering this viewpoint of human ancestry, a return to the state of evolutionary ancestors would indeed reduce aggressiveness and improve cooperation, so crucial in human society and extrapolated to extremes in the super-organism of Huxley's World State. While it remains a metaphorical reference to a socially backward past in *Looking Backward* and needs ages of evolutionary development in *The Time Machine*, in *Brave New World* biological differences in different social classes are part of an internal differentiation of the state as superhuman organism, which draws from the lessons of evolutionary science, psychology, social theory and modern economy.