

Shilling, Chris (2016) *The rise of body studies and the embodiment of society: A review of the field.* Horizons in Humanities and Social Sciences: An International Refereed Journal, 2 (1). pp. 1-14. ISSN 2413-6301.

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The Rise of Body Studies and the Embodiment of Society: A Review of the Field

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ABSTRACT: During the last few decades there has been a pronounced ‘turn to the body’ within sociology and social thought. Exploring the background to and the parameters of this development, this paper explores how this focus on embodiment has been used to develop new perspectives within social and cultural analysis, and can be assessed as an essential means of avoiding the Cartesian bias within much Western thought. Revisiting sociology’s heritage, it then identifies important resources for this project within classical writings, before analyzing why the body has become such a contested phenomenon within social analysis and society. As developments in science, medicine and technology have made the body increasingly malleable, so too have they made it subject to debates and disagreements about what is normal, desirable and even sacred about the physical identities and capacities of embodied subjects.

Keywords: the body, embodiment, sociology, structures/agency, social inequalities.

Introduction

There has, since the 1980s, been an increasing focus within academic research and writing on the social significance of the body. This developing recognition represented an attempt to advance the explanatory power of social, cultural and historical analysis, while also seeking to recover from the Cartesian legacy of Western thought a subject that had become marginalized within academic writings (e.g. Freund, 1982; Turner, 1984; O’Neill, 1985). Interested in examining how societies managed populations through the structural objectification of the body as *Körper* (the fleshy physical shell), and the individual significance of the experiencing, acting and interacting *Lieb* (the lived body), this trend spread across the social sciences and humanities. Culminating in the establishment of the interdisciplinary field of ‘body studies’, it is no exaggeration to suggest that this concern with embodiment - alongside associated interests in the senses, affect and what has become known as the ‘new materialism’ - has been one of the most influential developments within social thought in recent decades (Shilling, 2005; 2012; Coole and Frost, 2010).

During this time a distinctive theoretical and substantive terrain has been carved out that includes histories and archaeologies of the body (e.g. Feher, et al., 1989; Boric and Robb, 2008; Sawday, 1995); urban studies of the body (e.g. Sen-

nett, 1994); feminist theories of the body (e.g. Butler, 1990, 1993; Diprose, 1994; Grosz, 1994; Connell, 1987; Kirby, 1997; Frost, 2001); excavations of religious bodies (e.g. Mahmood 2005; Coakley, 2010), working bodies (e.g. Wolkowitz, 2006) and sporting bodies (e.g. Thorpe, 2011; Maguire et al., 2016); analyses of health, disability and embodiment (e.g. Turner, 1987; 1992; Frank, 1995; Williams, 2003; Freund, 2011); studies of embodied emotions and affect (Blackman 2012; Howes and Classen 2013); diverse readers, reviews and collections of essays on the subject (e.g. Frank, 1990; Featherstone et al., 1991; Scott and Morgan, 1993; Fraser and Greco, 2004; Malacrida and Low 2008); a growing number of texts (e.g. Cregan, 2006; Howson, 2012); special editions of journals including *Sociology of Health and Illness*, and *Societies*; and the launch in 1995 of the international refereed journal *Body & Society*. The fact that this sample only scratches the surface of the proliferation and reach of body studies helps illustrate the significance of this field.

For all its influence, however, there is something deeply counterintuitive about the move towards physicality within social thought. Sociology, the discipline that has arguably played the leading role in this development, is after all concerned with studying society. As Durkheim (1938) insisted in his explication of ‘social facts’, this is generally judged to involve the methodological analysis of trends and processes that extend beyond, but nevertheless shape, the horizons and actions of individuals. In this context, the discipline would appear best suited to studying phenomena such as crime or suicide rates, or global patterns of inequality. Surely the body is a property of individuals, not society, best studied by the biological sciences, not the social sciences or humanities?

In opposing such a conclusion, and highlighting the utility of focusing upon the body as a means of enhancing our social understanding, I want to begin by referencing recent developments in the natural sciences. This point of departure has been chosen not because their methods or standing deserve more credence. It is because they reveal particularly clearly how taking the body seriously as a vehicle of investigation can highlight social and economic relationships, and political events. Bioarchaeology (the study of biological remains from archaeological sites), for example, has extended our knowledge of gender inequalities, migration, and the effects of political oppression and conflict. Scientists working in this field have shown how the chemical composition of skeletal remains reveals major differences in past female and male diets, suggestive of socially structured inequalities in access to foodstocks. More impressive still is their capacity to reveal how political events - such as the Dutch famine of 1944–5, a period in which Germany stopped food supplies to the Netherlands - affected the health of those developing in utero (Gowland and Thompson, 2013).

Developments within what has been referred to as the ‘new’ biology, associated with the Human Genome Project and a series of other initiatives, also highlight how the body can reveal important information about the operation of societies. The field of epigenetics, for example, has demonstrated how the regulation and expression of genes is shaped by the social relationships, inequalities and environmental conditions characteristic of individuals’ lives. Many diseases and patterns of obesity are now commonly traced not to the workings of single genes, but to multiple conditions that include social and cultural circumstances (Atkinson, et al., 2009). Findings such as these provide compelling reasons why the body should be important to social science. Alive or even, in the case of bioarchaeology, dead, the embodied basis

of what it is to be human is both deeply affected by social and cultural processes and can also provide us with means of investigating these phenomena.

Developments within the physical and biological sciences thus suggest that focusing on embodiment may be profitable for sociology and cognate disciplines, but recent social and cultural developments have themselves highlighted the importance of body matters for understanding what is going on in society today. Cultural images of ‘slim and sexy’ bodies have become pervasive within consumer culture - spreading from Anglo-American societies to become an increasingly global phenomenon - providing a visual backdrop to advertising, television and social media. While images of the body have become a vehicle for marketing, a growing amount of energy and attention has also been devoted to people’s pursuit of the ‘body beautiful’. In the USA alone 15.9 million cosmetic procedures were performed in 2015 (American Society for Plastic Surgeons, 2016). The concern to sculpt the body through breast modification, liposuction and tummy tucks, rhinoplasty, skin bleaching and a large range of other techniques is also evident across a growing range of societies (Gilman, 2000), while the concern with bodily perfection has been associated with serious social problems, including eating disorders (among young women in particular), and muscle dysmorphia (among young men obsessed with developing hyper-muscular bodies).

If social trends have brought the body to the attention of academics in recent decades, the interrogation of matters related to embodiment has also been used as a means for addressing unresolved theoretical issues. Expanding on how the ‘rise of the body’ has been associated with theoretical advances in sociology, I turn now to the issues that have prompted these developments before examining the classical foundations that continue to inform them. I then focus on those eight conditions and trends that have resulted in the body becoming increasingly contested both conceptually, within academic discourse, and also socially, as a means for the pursuit of competing political and economic agendas, before identifying a ninth emergent factor that has arguably taken this conflict to a new level. It is this broad context that provides us with the means to understand some of the major contemporary trajectories of debate and discussion in the field. Throughout this review I focus on the most influential classical and contemporary thinkers who have assisted our understanding of the embodiment of society and shaped the field of body studies.

Theoretical Issues

Sociology and the social sciences have from their origins been concerned with seeking to analyze a range of issues central to both the organization and operation of societies, and to those patterned forms of interaction that involve yet extend beyond the horizons of individuals. Body studies have added important dimensions to these considerations - as illustrated in conceptualizations of structure, agency, acculturation, social inequalities and solidarities – and in so doing have drawn on and sought to develop the work of an eclectic range of authors.

A major theoretical issue informing the academic turn to the body involved dissatisfaction with the discipline’s emphasis on the cognitive and ideological effects of social structures, and its relative neglect of how societies impinged upon the surfaces, feelings, habits and physical capacities of embodied subjects. One of the reasons Michel Foucault’s writings on power, punishment and the ‘care of the self’ became so popular, indeed, was because their focus on disciplining the body ad-

dressed a number of these issues. In this respect, Foucault's (1975) analysis of the broad changes that took place within the European penal system during the late early-modern period provided for many a compelling account of how structures operate through forms of bio-power that imprint themselves on and within bodies.

In the medieval and first period of the early-modern era in Europe, the focus of governance was on highly visible displays of monarchical power that damaged or destroyed the bodies of offenders. Foucault illustrates this in a gruesome opening passage to his book *Discipline and Punish* in which he details the 1757 torture and execution of Damiens (convicted of attempting to assassinate King Louis XV of France). Tied to a scaffold, Damiens had lumps of flesh torn from his body with red-hot pincers before a 'boiling potion' was poured over each wound. Screaming from this torment, his limbs were then wrenched and ultimately separated from his body. Finally, while still alive, his trunk was thrown on to a stake and consumed by fire. This execution occurred in plain view of, and was a source of entertainment for, spectators: it was a show to be enjoyed and an education in the destructive power of the monarchy.

In the space of just a few decades, however, there emerged a new 'art of penal government' in which disciplining the body and 'soul' (or the inner desires, habits, and actions of the individual) became more important than destroying it. This art was focused upon improving the quality of the population's 'human capital', its productive potential, and was exemplified by the English philosopher Jeremy Bentham's design for a 'panopticon'. The panopticon involved a central watch tower from which prisoners could be monitored. With their every action open to scrutiny, this visibility was meant to encourage prisoners to reflect on their behavior, from the perspective of the warden, to improve their self-control, and prepare to become productive members of society (Foucault, 1975). For Foucault, these changing orientations to the body were part of a much larger transformation in how power was exercised and populations conceptualized. Structures did not exist 'above', 'beyond' and 'out of reach' of those affected, but intruded into the very fibers, dispositions and habits of their being.

If focusing on the body can help us understand how social structures operate, it can also help us understand people's capacity for agency - our ability to act, intervene in and make a meaningful difference to the flow of life. At its most basic this entails asking how the morphology and sensory capacities of the body affect what we can do, and our use of metaphor. Lakoff and Johnson's (1999) work on the utilization of language to think, express ourselves and construct interpersonal meaning, for example, demonstrates how bodily states and possibilities/limitations (e.g. feeling 'sick' of someone or being unable to physically occupy two places simultaneously) are crucial to the processes that inform our reasoning and understanding. Focusing on the body in relation to issues regarding agency also raises the issue of how we learn to extend ourselves into and recruit the environment to our plans; a theme developed by theorists of digital media who highlight the various ways in which the senses can be extended as a consequence of the assemblages they forge with new technologies (Hansen, 2006).

With regard to how bodies learn to extend themselves in different ways through contrasting patterns of acculturation, it is worth looking back to a lecture on 'techniques of the body', made in 1934, by the sociologist and anthropologist Marcel Mauss. Mauss discussed the methods of breathing practiced by Daoist priests and Yogic mystics. Far from being instinctive, these techniques required a lengthy apprenticeship, exemplifying how the development of people's physical abilities in-

volves an interweaving of social and psychological processes within the biological foundations of human being. The consequences of such techniques of breathing, moreover, can be profound. Promoting positive flows of energy within the body, they help harmonize individuals with the world around them, and can even facilitate communication with the divine (see Mellor and Shilling, 2010). Lest anyone think that this example is irrelevant to contemporary life, these Eastern methods of breathing (alongside their associated disciplines of movement such as Tai Chi Chuan) have been used in hospitals and prisons as methods of lowering blood pressure, reducing anxiety, and helping physical and psychological stability. Breathing does not just keep us alive, it is also fundamental to how we relate to and act in our environment.

Mauss's lecture remains insightful for anyone interested in how individuals acquire knowledge. In contrast to conventional Western philosophical conceptions of a brain-bound mind trapped within the confines of an irrational body, he shows how knowledge of the world is intimately related to how we are able to unfold our senses and movements onto the environment. It follows that learning occurs not only as a result of our capacity to manipulate abstract symbols via thought, but also through constant culturally mediated transactions with our environment; taking our surroundings into our bodies through breath, sight, hearing, etc., while also acting upon and indeed transforming it through our actions.

Methods of breathing may facilitate transcendent experiences, but the widespread practical importance of other body techniques to our agentic capacities can even become matters of this-worldly life and death. The British tourist Tony Callaghan, who in 2015 found himself caught up in a terrorist attack in Tunisia, illustrates this in the case of hearing. Having served in the armed forces, he alerted those around him at the hotel pool to the significance of what they had just heard: 'I know the sound of gunfire. I shouted to everyone, "This isn't a firework display, you need to get yourself to safety, now"' (Bchir and Trew, 2015: 4). What seemed like the sound of fireworks to those without a military sensibility, prompted an adrenaline-rushed sense of urgency to the one individual present whose aural training taught him to recognize (distinctive types of) gunfire.

Techniques such as these are not, of course, relevant to only particular senses or actions, or particular occupations. Any culturally structured set of practices can be assessed as possessing their own set of 'body pedagogics', modes of embodied education that organize people's senses, dispositions and thoughts in ways that are productive of particular types of knowledge (Shilling, 2016). There is no guarantee that individuals will learn and incorporate the particular body pedagogics to which they are exposed during socialization or occupation training. Nevertheless, as studies of medical, military, religious, sporting and other forms of training have shown, the successful coordination of sense and reflection, thought and action is essential to people's capacities to act effectively in relation to specific goals and also to the reproduction or change of these culturally structured practices (e.g. see Watling, 2005; Roepstorff, 2007; Saunders, 2007; Hockey, 2009; Andersson, Östman and Ohman, 2013).

Body matters are central not only to our understanding of social structures and human agency, however, but also to our comprehension of other social processes. Social inequalities have long been articulated through various features of the body. Racism is a prominent example, with studies highlighting potential correlations between skin color and earnings in the US, and color and graduate earnings in the UK (Hersch, 2006; Zwysen and Longhi, 2016). Previously, in the early decades

of the 20th century, one of the pioneers of modern rhinoplasty, Jacques Joseph, helped German Jews avoid persecution by becoming ‘ethnically invisible’. Elsewhere, following World War II, ‘double eyelid surgery’ grew in popularity among Chinese, Korean, Japanese, and Asian Americans (Gilman, 2000). Examples such as these suggest that while international relations may operate at the level of trade deals, military conflicts and political negotiations - and be underpinned by the long-term effects of colonial oppression - they are also manifest in terms of corporeal imperialism.

If the body is key to the construction and maintenance of inequalities, so too is it for the forging of social solidarities. Tattoos marked the common identities of early Christian pilgrims, and have signified solidarities among prisoners, and the armed forces. In contrast, what we consume or keep from our bodies is also significant. The fasting that takes place during Ramadam, for instance, can promote visceral experiences of commonality among Muslims. The same can also be said for Yom Kippur amongst Jews. Such examples suggest, as Mary Douglas (1970) argues, that the body is perhaps our most natural symbol. It is often experienced intensely as a sign and vehicle of identity and belonging that can also signal deep differences between peoples. This is reinforced by Ebaugh’s (1988) research into people’s entry into and exit from particular roles; processes that were often accompanied by corporeal ‘cuing’ in which the body would reflect broader life changes. Ex-nuns, for example, would often grow their hair, don new styles of clothing, and experiment with new ways of carrying their bodies in order not to appear ‘nunnish’ (Ebaugh, 1988). The significance of bodily habits, techniques and experiences for people’s conception of reality, indeed, should give pause for thought to those who think Habermas’s (1981) notion of ‘ideal speech’ provides a realistic route towards the resolution of conflicts.

Classical Sociology

Having emphasized the salience of body matters to theoretical problems and social processes, it is important to note that some of the most influential classical sociologists placed embodiment at the centre of their conceptions of society, shaped the contributions that have been made by body relevant scholars noted in the previous section, and continue to influence the trajectory of contemporary discussions. Despite his determination to separate the subject matter and methods of sociology from those of the physical and biological sciences, for example, Durkheim’s (1995 [1912]) last major work, *The Elementary Forms of Religious Life*, developed a theory of religion and society based on a concern with the body’s social and moral potential. Durkheim argued that while bodies generated egoistic appetites, the collective effervescence circulating in social assemblies demonstrated they were also the source of sacred values. The body ‘conceals in its depth a sacred principle that erupts onto the surface’ via markings/adornments that affirmed membership of a moral whole (Durkheim, 1995 [1912]: 138, 233). This enabled individual bodies to become attached to and emboldened by entities greater than themselves, insights developed later by Mauss and other scholars of body techniques and pedagogics, and also in terms of symbolism by Mary Douglas. From sporting events, to remembrance services, to the French people’s collective defiance against the November 2015 Terrorist attacks in Paris, Durkheim’s work remains relevant.

The German sociologist Max Weber’s (1991 [1904-05]) writings on the Protestant ethic and the spirit of capitalism constitute another core, albeit underappreciated,

ated, contribution to sociology's capacity to explore the social significance of embodiment. Weber analyzed how religious beliefs shaped the bodily identities and behavior of individuals. Eschewing sinful pleasure, and immersing themselves in long hours of labor searching for worldly signs of election, the physical habits stimulated by the Reformers provided a corporeal basis for rational capitalism. Long interpreted as a defense of the importance of ideas in the historical process, The Protestant Ethic can actually be read as an investigation into the emergence of an early modern form of rational habitus as the thoughts, beliefs, feelings, dispositions and actions of the Puritans become redirected along a particular template informed by a new theology and possessed of qualities suited to the advance of market society. This analysis can be seen as a precursor to Foucault's writings on discipline.

Perhaps the most provocative sociologist to have made human embodiment central to his conception of social and historical change, however, is Norbert Elias. His writings on long-term civilizing processes seek to understand the minutia of people's most intimate habits through an analysis of historical changes in etiquette books, while linking these to broader structural changes in the pursuit of status, the division of labor, and governmental monopolies of violence (Elias, 2000 [1939]).

Elias begins by showing us how much distance there is between socially acceptable habits and behavior contemporarily compared with that which was prevalent in and after the medieval era. Interrogating etiquette books from the past, he reasons that if these texts sought to prohibit particular behaviors, this is evidence that they existed. In the 13th century, for example, advice included 'You should not poke your teeth with your knife' (Elias, 2000 [1939]: 75). In the C16th, Erasmus advised people that 'It is impolite to greet people who are urinating or defecating', and goes onto instruct individuals suffering from flatulence on proper behavior (Elias, 2000 [1939]: 110, 130). Elsewhere Della Casa's Galateo sought to change the blasé yet intimate attitude people displayed towards bodily waste expelled in bed.

'It is not a refined habit, when coming across something disgusting in the sheet, as sometimes happens, to turn to one's companion and point it out to him. It is far from proper to hold out the stinking thing for the other to smell, as some are want...lifting the foul smelling thing to his nostrils and saying 'I should like to know how much that stinks'" (cited in Elias, 2000 [1939]: 111).

Co-existing with these attempts to prohibit certain behaviors, however, broader social changes were taking place that gradually impacted upon standards of acceptable behavior. Elias (1983) traces these to the development of Court societies, which gained increasing importance in almost every European country from the Renaissance onwards. Court societies institutionalized detailed codes of body management that were used to differentiate between people as a measure of their relative worth. Sanctions were levied against those who refused to follow court etiquette and this promoted a heightened tendency among people to monitor and mould themselves in relation to these criteria. As people faced pressure to take more note of the appearances and reactions of those with whom they interacted, so too did the levels of empathy that developed between individuals.

These developments were assisted by the wider social contexts in which people lived. In contrast to earlier periods in which violence was less regulated, court societies did not require individuals to be constantly ready to display a high level of aggression: physical battles were replaced frequently by courtly intrigues and survival depended on adherence to behavioral codes and skills of impression management. Increasingly, the body became a location for social codes – a vehicle

through which individuals differentiated themselves from others. It became embarrassing to share a bed with strangers, bodily functions such as defecating were subject to greater taboos, and nakedness and sexuality was moved to the back regions of social life. For example, while total nakedness when preparing to go to bed was the rule in Germany up to the C16th, the nightdress came into fashion thereafter. What used to be seen as natural became associated with shame (Elias, 2000 [1939]). Elias's work has major implications for a wide range of issues in body studies and continues to inspire contemporary work in the area on diverse subjects including violence and aggression, and the habitus necessary for what Wilbert van Vree (2011) refers to as the 'meetingization of society'.

Durkheim, Weber and Elias constitute just a small, if exceptionally important, sample of those classical sociological thinkers who have contributed to the terrain on which body studies developed. Marx's (1970) interest in how humans remade themselves and their environment through the social relationships entered into, and the tools utilized, in securing the means of subsistence could easily be added to our list (see also Marx and Engels, 1970). So too could Simmel's (1971 [1918]) interest in the significance of bodily drives and human vitalism to the creation and transcendence of social and cultural forms; embodied qualities that ensured individuals could never be subsumed entirely within society. An exhaustive survey of such figures is beyond the remit of this article, but it would be remiss to avoid mention of the sociological influence exerted by pragmatism.

John Dewey, G.H. Mead, William James and C. S. Peirce did much to identify embodiment as the central mediator of the external and internal environments of human action. As Dewey (1980 [1934]: 13) argues, no creature lives within the confines of its skin; our senses are a 'means of connection' with 'what lies beyond [our] bodily frame', facilitating action and being 'called out' by the environments in which we seek to fulfill our needs in conjunction with others. It was in this analytical context that pragmatism explored the embodied cycles of habit, crisis and creativity that characterized individual action (Faris, 1967; Shilling, 2008). The main sociological influence of pragmatism was the influence it had on the development of a range of body-relevant studies in the early twentieth century (on the city, sexuality, immigrant groups and hobos) at the University of Chicago (e.g. Thomas, 1907; Anderson 1961 [1923]; Cressey, 1929; Heap, 2003: 459). However, it continues to inform Shusterman's philosophical work on the body, and underpins the growing interest in those body pedagogic techniques through which people learn social, cultural and technical competencies (e.g. Andersson and Garrison, 2016).

The Rise of the Body

Having noted how classical sociologists provided visions of social development that incorporated a concern with embodiment, I want now to return to those diverse factors prompting the current gaze on, and interrogation of, the body. These not only help us understand some of the factors that contributed towards the establishment of the inter-disciplinary field of body studies, but also facilitate an explanation of why the body remains such a thoroughly contested phenomenon, both analytically and in terms of its social status.

The rise of 'second wave' feminism in Europe and the USA during the 1960s and 1970s was one of the first developments to place embodiment on the sociological agenda as a result of its insistence that the treatment of women's bodies was not just a private issue but also a public and political concern. Focusing on women's

health issues, domestic violence, and the objectification of women's bodies in pornography, the gendered body was placed centre stage (Davis, 2007). This feminist focus on women's embodied existence did more than simply highlight the multiple ways in which bodies were implicated in social relations of inequality and oppression. Analysis of the sex/gender, nature/culture and biology/society divisions began to break down, or at least reduce the strength of, the corporeal boundaries that popular and academic thought posited between women and men (e.g. Oakley, 1972). Indeed, feminist scholarship problematized the very nature of the terms 'woman' and 'man', 'female' and 'male', and 'femininity' and 'masculinity' by questioning the ontological bases of sexual difference (Butler, 1993).

The second factor to contribute towards an increased focus on the body involved rising ecological concerns about global sustainability, and critiques of one-dimensional commercial human lifestyles that drew on methods of somatic improvement involving yoga, meditation and a host of bodily practices and disciplines associated with elements of Oriental spirituality such as Zen, Taoism or Tantra (Marcuse, 1964; Shusterman, 1997: 43; 2000; 2008: 17). The concerns about environmental sustainability evident in these criticisms were reinforced by the Club of Rome's 1972 report *Limits to Growth*. This global think tank highlighted the risks to future life on earth by exploring trends in population growth, food production, pollution, and the industrial consumption of non-renewable natural resources.

The third and partly related factor to have stimulated interest in the body involves the 'ageing' of societies in the Global North, as well as in areas of the Global South. The spread and improvement of basic amenities and health care has raised life expectancy for many, and the United Nations predicts that there is likely to be a doubling of the percentage of the world's population over the age of 60 (from 10 per cent to 21 per cent) between 2000 and 2050. In addition to the increased costs of caring for such a population - the 'burden' of caring for the ageing has also been associated with the possibility of generational conflict over the distribution of resources in welfare systems (Gilleard and Higgs, 2002) - the very process of growing old, and becoming dependent, has been stigmatized in the most economically influential regions of the world. Anglo-American films, media, and advertising prize the young and independent body. Again, it is bodies that become the medium through which social relations are constructed.

Involving a very different set of circumstances, the rise in the mid-1980s of robotics, or what its proponents referred to as embodied AI, also increased the social significance attributed to the body. In responding to the limitations of conventional cognitive artificial intelligence, the cry from researchers at this time was 'intelligence needs a body' and one of the results of this development has been a proliferation of quasi-social interactions between robots and humans (Pfeifer and Bongard, 2007). Companionate robots have been introduced in the field of health and social care for those suffering from Alzheimer's and other forms of dementia. Elsewhere, developments including iRobot's 'my real baby' doll and the proliferation of robotic toys, musical robots that can accompany singers during performances, the Honda robot ASIMO that can recognize human faces as well as respond to simple voice commands, and the speaking sex dolls produced by the American RealDoll company have stimulated much debate about the ethics of human-robot interaction and about the borders between human and non-human bodies. Perhaps most controversially, the expanded use of drones and other robots in surveillance and conflict has raised all manner of questions about responsibility and ethics in warfare (Shaw and Akhter, 2014).

Commodification processes have also highlighted the significance of embodied subjects, parts and processes, and constitute the fifth factor to have encouraged academic interest in the body. David Harvey (2004) has suggested that we are living through a period of primitive accumulation, evidenced not only by the numbers of people still subjected to slavery, but also by the growth of ‘transplant trafficking’ in which value is extracted through ‘a global billion-dollar criminal industry involved in the transfer of fresh kidneys (and half-livers) from living and dead providers to the seriously... ill and affluent or medically insured mobile transplant patients’ (Scheper-Hughes 2011:58). Extracting bodily processes for value, the biotechnological exploitation of DNA has been associated with potential medical advances that have attracted billions of dollars of capital investment in an attempt to sell ‘surplus health’ to the ‘worried well’ (Dumit, 2012). A related development that illustrates how even the wealthy have failed to escape the commodification of the body concerns the intensification of the body’s appearance as a form of physical capital; a visual signification of style, class and status that carries value within social fields (Bourdieu, 1984).

The sixth factor to have directed academic interest towards the body concerns the rise of what has been referred to as biological and neurological citizenship (Rose and Abi-Rached, 2013). These notions contain the implication that to be a morally acceptable citizen one needs to monitor, evaluate, and work on oneself using expert knowledge from the ‘received facts’ of science and medicine. Knowing one’s chances of inheriting particular diseases, as well as being aware of the risks associated with lifestyle choices related to diet, exercise, and alcohol, can prompt individuals to become what the anthropologist Rajan (2006) terms ‘patients in waiting’. The patient in waiting governs him/herself on the basis of a medical paradigm that highlights the economic value of physical and mental health to the individual, to the health service, and to national productivity.

Developments in bodily governance have also become important to raising the sociological prominence of this subject. Post 9/11 there has been intensified scrutiny of ‘alien’ bodies. Passports, identity cards, fingerprint and voice recognition devices, and the gathering of other biometric data show that our bodies have become passwords (Davis, 1997). Such technologies have in particular been employed as means of dealing with immigration and the threat of terrorism, with iris recognition devices being used to process Syrian refugees in holding camps, and now complement more traditional means of observing and tracking bodies including CCTV and also undercover police operations (Marx, 1988).

The eighth factor I want to mention here to have stimulated academic interest in embodiment during the last few decades concerns the rise of the body as a project. In traditional societies the body used to be seen as something natural, determined by the parameters of nature and subject to only limited cultural interventions involving such methods as tattooing and scarification. With advances in science, medicine and transplant as well as cosmetic surgery during the modern era, however, the size, shape and even contents of the body have become increasingly open to human design. In these circumstances, there has been a tendency to view the body as a malleable raw material open to the designs of its owners. Increasingly incorporated into the sphere of culture as it has been, however, the options and choices individuals and groups face in terms of how to manage and mould the field of embodiment have been subject to contestation and conflict and it is to this issue that I turn in concluding this article.

Contested Bodies

The developments that brought body matters to the attention of sociology and academic analyses more generally highlighted very different aspects of the body. From its gendered, robotic, governmental and exchange values, to name but four of these emphases, the body slips and slides, metamorphosing in terms of its meaning and status. Indeed, at a time when scientific and technological interventions into the body have increased our capacity to alter its appearances and capacities to unprecedented levels, body matters have perhaps become more contested than ever before. In this context, if we consider the current relevance of Durkheim's work, it is reasonable to explore whether bodies are now prized and even rendered sacred on the basis of varied, and opposing factors. These secular and religious modes of sacralization can be seen as an emergent development that has increased further what is at stake in current concerns with embodiment. They include the youth, ethnicity, skills and capacities of bodies, and their value as commodities. Such variations, however, also highlight potentially deadly conflicts and disagreements, and this can be exemplified by contrasting religious conceptions of the body as sacred including the 'holy rage' visited by fundamentalist groups upon people who treat bodies in ways that are seen as violating core principles (see Mellor and Shilling, 2014).

The manner in which bodies are conceptualized, experienced, and treated provides us with more than a topic of interest restricted to the biological sciences. Instead, these issues provide key means of approaching social relationships, cultural ideas, technological developments, and historical change.

NOTES

This article is based on a talk delivered to the Edinburgh Science Festival on 6 April 2016.

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