# The Production of the (Post)Military/Industrial Subject (Self)

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History becomes "effective" to the degree that it introduces discontinuity into our very being—as it divides our emotions, dramatizes out instincts, multiplies our body, and sets it against itself. "Effective" history deprives the self of the reassuring stability of life and nature, and it will not permit itself to be transported by a voiceless obstinacy toward a millennial ending. It will uproot its traditional foundations and relentlessly disrupt its pretended continuity. This is because knowledge is not made for understanding; it is made for cutting.<sup>1</sup>

## Part 1

Before considering the way in which the *social practice* called education has changed in accord with the larger social transition from societies of liberal industrial *discipline* to societies of postindustrial systems *control*, a Foucauldian-inspired (genealogical) foreground of the *disciplinary regime of education* will be rendered.<sup>2</sup> The drawing is backward: the foreground (action) is in large comprised of the *mise-en-scéne* (background), this *inversion* intended to throw (Albertian) perspective and received perception of Western education out-of-whack. Citing/sighting the back-stage machinations, the wires and pulleys—siting war and militarism—out in front, making them direct light and explanatory placards is meant to excite *Verfremdung* (estrangement), so that the work can pretend to an (abridged) *fugal* performance of the great project of modern education.<sup>3</sup>

This attempt to recursively theatricize, to look to drama and dramaturgy (a common dramaturgical task is to locate background information for a theatrical performance) is not an avoidance of defensible argument or narrative continuity, but an attempt to deploy textual unorthodoxy (strategic *jouissance*) to induce intense reader response.

As you may know, Martin Luther (1483-1546) was placed under the authority/ protection of the independent German states that his form of Protesting Christianity had informed and supported. In 1524, after he was worshipped in the Protestant states, he wrote a letter called *To the Councilmen of all Cities in Germany that they Establish and Maintain Christian Schools*. It reads in part:

I maintain that the civil authorities are under obligation to compel the people to send their children to school....If the government can compel such citizens as are fit for military service to bear the spear and rifle, to mount ramparts, and perform other material duties in time of war, how much more has it a right to compel the people to send their children to school, because in this case we are warring with the devil, whose object it is secretly to exhaust our cities and principalities of their strong men.

Whether it was the devil or difference (alterity) that motivated Luther's appeal for statist education, in one way or another, education in the West has been at war since then. Luther—with Gutenberg who mechanized it—was responsible for translating the Bible into the vernacular and disseminating it, this instrumentalization of the Word that had been so otherworldly (magic) provided the foundations for "nationalized" or "ethnic" Christianity, and, ironically, for modern militarist statist education. With Luther, the great Christian reformist, education—not just schooling but education—that vast project of deliberate subjective formation—became a "tool of state," an instrument which lent itself to the production of a hegemonic subject, of capitalism, and, much later, of the nation. This instrumentalized use of education was advocated as well by Francis Bacon (1551-1626) a few decades later, though as much to war with a devil called "nature" (empiricism) as to form the "English" hegemon.

Lutherian Protestantism encouraged the development of a new kind (ideal type, Weber) of subjectivity based in direct (personal) access to God that until then had been accessed only remotely through Churchly-mediation. This theological *inversion* threatened the basis of Roman Catholicism, and was battled by the armies of Charles V, the Emperor of the still functioning Holy Roman Empire (HRE). Ignatius Loyola's (1491-1556) newly formed paramilitary Society of Jesus (Jesuits) joined with the HRE to supplement its military warring with a propaganda counteroffensive (Counter-Reformation), a psychological operation ("psyop" in contemporary *warspeak*) that employed education, science, diplomacy, and high technology—the magic lantern, mass advertising, art, schooling—to (re)colonize populations and (de)limit emergent Protestantisms in Europe and "abroad."

Warfare between Church (now manifest in Spanish "silver" imperialism) and Protestant states increased in intensity and destructiveness to the point where the Thirty Years War (1618-1648) as it came to be known, left previously prosperous states in Northern Europe depopulated and depressed. The militarization of Prussia can be read as a *recuperative* function, a means of *responding* to this wastage (wolves in the streets of previously prosperous cities), as can the generative production during that era of a militant/Protestant/capitalist (this-worldly) subject fitted to the "modern world" of quotidian psychic (and physical) violence that it itself was constructing.

Western statist education, like capitalism, the emergent nation, and the fictively "individuated" human (nascent liberalism), was incepted during this generative ultra-violent period, with the Protestant military of the time as the organizational and operational basis (the "model armies" of Maurice of Nassau [House of Orange; he served as Descartes preceptor], Gustavus Adolphus of Sweden and Oliver Cromwell of England).

However, this origin and lineage of capitalism and of statist compulsory education has gone missing. The "oversight" notwithstanding, the development of actually enforced "universal" compulsory nationalized schooling in nineteenth century Prussia (which provided the model for compulsory mass schooling in the United States, and severely influenced educational practice in Great Britain and France and then throughout the world) can be read in similarly *recursive* (fugal) fashion.<sup>4</sup> Two hundred years later, the martial (re)enlistment of education by the Prussian state at a much higher level was another "defeat reaction," this time of the defeat of Prussia's Enlightenment "model army" by Napoleon's national army (1806-1807).

After this defeat, compulsed schooling and knowledge production itself (the disciplines developed by the Humboldt brothers and Hegel, the research university

introduced by the University of Berlin, 1810) were encumbered by the state to ensure that Prussia would not again face military (or economic) annihilation (the state of Prussia was legislated out of existence after WWII). Fichte provided the philosophical justification in his *Addresses to the German Nation* (1808). His writing supported a national language that would foster the development of a (bourgeois) national culture (literature, art, science, philosophy, technology), and which in turn would construct a *nation* which would legitimize the "national" state and its unquestioned obedience/obeisance.<sup>5</sup> This superimposition of nation over land/people was not an "organic process" but an elite strategy. Bacon envisioned Elizabethan England doing much the same, and in ways it did (for example, national literature, Irish wars); later, Napoleon reordered the remnants of the *ancien régime* into a modern/model nation.

The globally influential military treatise *On War* (Clausewitz, Berlin, 1832) was rooted in that same defeat. The military strategy Clausewitz developed, which by 1917 was followed by all imperial, industrial nations, required a militarized "home front" (the resources of the state, military and civil, to be used for war in concert).<sup>6</sup> This "total military/civil strategy" fit well with the state/educational/ knowledge formation strategies of Fichte, the Humboldts, and of Hegel, the philosopher of modern war and imperialism.

The military effectiveness of Clausewitz's "army with a state attached to it" stunned the Western world (mass circulation newspapers and the electrical telegraph were in use then) when Prussia (with the assistance of other German states) effectively defeated France in six weeks in 1870 (Franco Prussian War). Along with inculcating nationalism and obedience, the new-formed Prussian educative system also trained an expanded decision-making civil and martial elite (general staff). This form of military/industrial education still thrives in schools, colleges and universities, especially in war schools and "schools of management."

Max Weber (1864-1920) was the first widely read theorist to address the centrality of war/militarism and of Protestantism to Western development (Sombart and Mumford did as well).<sup>7</sup> However, Weber's identification of the militarist origins of capitalism went missing, allowing the mythology/ideology developed during the Scottish Enlightenment (Ferguson, Smith, political economy) to continue. As well, by localizing capitalism and demonstrating that it was a derivative of militarism, Weber (*Economy and Society*, first published 1924) located the modern state in its monopoly on violence, this monopoly justifying the state by giving it "legitimate" authority to war, imprison, educate, tax, and thereby "produce people" on behalf of the people (Lockean liberalism).<sup>8</sup>

Weber identified rationalization and bureaucratization as the processes that grounded and maintained this monopoly. He noted that "this means fundamentally *domination through knowledge*." Bacon's dictum—*knowledge is power*—found quotidian existence.<sup>9</sup> With such power given knowledge, the social necessity for "education" and of education "for all" if the nation-state was to be optimized, became obvious. By the early twentieth century, education, schooling, the state, nation, industrialism, and militarism were so tightly imbricated that to identify the

militaristic roots and nature of modern education, while always unfashionable, became even more difficult.

This difficulty was as well a function of the way the disciplines were developed. Warren Sproule claims "mainstream sociology has taken from classical nineteenthcentury theory two kindred assumptions about contemporary society: That military imperatives have been separated from and no longer play an important role on wider social activity; and that the incidence of warfare decreases and eventually disappears under conditions of modernity."<sup>10</sup> Sproule argues that this lack of focus on war/ militarism has hindered the "explanatory capacity of the discipline," and that this lack of emphasis runs through recent "sociological theoretical paradigms— 'Postmodernity,' and the 'Information society' model." The educational models based on sociology—and on Western (liberal) philosophy more generally—are delimited by these same lacunae. Sproule points out that this "oversight" exists in spite of Weber's development of a sociology that centrally addressed war/militarism. He writes:

As previously noted, the outstanding and respectable exception to a generally rosy picture of a relatively peaceful present within the sociological tradition is (not surprisingly) Max Weber...the military factor as a core element in modernity constitutes a key theme in *Economy and Society* (1968). Spinning off his central conviction that "[m]ilitary discipline gives birth to all discipline"...Weber particularly stressed the part played by the armed forces and war in nation-state formation in general and capitalism in particular...the same influence at work in the organization of civilian industry and workplace practices, so obvious that "[n]o special proof is necessary to show that military discipline is the ideal of the modern capitalist factory, as it was for the ancient plantation."<sup>11</sup>

# Martin Shaw writes similarly:

Despite a wide acceptance of the social character of war, its is widely excluded from the basic models of modern society that are on offer in social science. The concept of "industrial society" which has informed mainstream sociology from Saint-Simon, Comte, and Durkheim onwards was defined by contrast with the military hierarchy of feudal-agrarian society. It was proposed by Comte, for example, in the belief that a rational scientific social organization of labor — the basic sense of "industry"—must imply peace. It has long since been proven that this optimism was utterly displaced: but the concept of "industrial society" has survived, minus the assertion of pacifism, as a *de facto* model of warless society.<sup>12</sup>

Marxism, of course, could not conceptualize war/militarism as a "prime mover," that role reserved for the mode/means of production alone. Shaw writes:

Later Marxism confronted the twentieth century experience of war by adapting the model, to theorize about the state, imperialism and nationalism. These code words have entered the wider sociological parlance, generally permitting their users to skirt round the problem of war by examining the wider economic, political, and ideological relations: rarely the social process of war itself.<sup>13</sup>

And finally: "where early nineteenth century theory explained war away...late twentieth theory largely ignores the uncomfortable facts."<sup>14</sup>

# Part 2

All of us are already civilian soldiers without knowing it. And some of us know it. The great stroke of luck for the military class's terrorism is that no one recognizes it. People don't recognize the militarized part of their identity, of their consciousness.<sup>15</sup>

There is, however, a massive social theoretical exception—French "poststructuralism." Michel Foucault captured the pervasiveness and generalization

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of contemporary militarism, which is, in effect, the *militarization* of existence. He, along with Deleuze and Guattari and Virilio (who developed a thesis regarding the *militarization of perception*), provided a frame within which the ubiquity of war/ militarism in the *post-heroic* era can be appreciated. In an *inversion* of the Clausewitzian formula whereby "war is the continuation of politics [*Politick*] by other means," to Foucault, Deleuze, and Guattari, and Virilio, politics and other social practices/discourses of control including education are now *the continuation of war by other means* (its massive generalization). Foucault states: "power is war, a war constructed by other means."<sup>16</sup> Deleuze and Guattari state:

Total war itself [World Wars I and II] is surpassed, towards a form of peace more terrifying still ["Cold War" and terrorism]. The war machine has taken charge of the aim, worldwide order, and the [nation] states are no longer anything more than objects or means adapted to that machine. This is the point at which Clausewitz's formula is effectively *reversed*; to be entitled to say that politics is the continuation of war by other means, it is not enough to invert the order of the words as if they could be spoken in either direction; it is necessary to follow the real movement at the conclusion of which the States, having appropriated a war machine, and having it adapted to their aims, reissue a war machine that takes charge of the aim, appropriates the States and *assumes increasingly wider political functions*.<sup>17</sup>

Virilio captured a similar thought in his concept of "pure war," which describes a "civil peace" devoted to constant "preparation for war." ("Postindustrial" economies are "blended" for that reason. The "information age" itself is a "spin-off" of U.S. military research and development. For example, the U.S. armed forces recently spent approximately one billion dollars developing *elearning*. Indeed, *postindustrialism* itself is a *byproduct* of war/militarism).<sup>18</sup>

Baudrillard's provocative *The Gulf War Did Not Happen* caught a *vital* aspect of postindustrial *militarization*—its *virtualization*. He argues that war in the era of hyperreality is a media event. The "war effect" might better describe the way "war" is experienced within "postindustrial jurisdictions" now that low-grade hi-tech war is quotidian practice (in *warspeak*, low intensity conflict [LIC]). These *inversions* of the conventional narrative whereby war and peace exist as separate states of social being (that is, the Hegelian concept of war), and of society as generally peaceful and of education as an ultimately beneficent practice, cannot be accessed easily in a discursive space that maintains a positive (learned) ignorance toward the prevalence, practice, and function of war/militarization.

If the educational foreground (disciplinary knowledge) remains *underdeveloped* and *undeveloped* as regards the centrality of war/militarism to Western development, education as a field of study premised on borrowing generative knowledge, cannot avail itself of knowledge not circulating within the commonweal or not developed. As well, in the past century, the sociology and history of education was ancillary to educational philosophy. When the history of education and educational thought was engaged, it was usually through an incremental and positivist lens that stayed away from unfamiliar readings.<sup>19</sup>

One of the earliest state educational systems was built in Sparta. In the (violent) binary that grounds the *mythos* of education still, martial, dictatorial Sparta is juxtaposed with virtuous, republican Athens. Remembering that Plato wrote the *Republic* after the defeat of the "virtuous" state by "northern barbarians"—that

writing, like developments in Prussia following that state's defeat by Napoleon, as well can be read as a "defeat reaction." Indeed, the *Republic* is a guide to the formation of a Sparta-like mythical system, as in aspects was Clausewitz's *On War* a thousand years later.

However, when it came to organizing violence, the states of Ancient Greece were mere "pikers." Mann writes: "only Republican Rome has ever equaled the extent to which twentieth century societies have, on occasion, mobilized for military purpose." <sup>20</sup> William Spanos, in the field of education, draws upon the connection between Rome and contemporary educational practice. Using Martin Heidegger, Jacques Derrida, and Foucault, Spanos locates contemporary educational discourse in the Roman re-colonization of the originary "errant" (de-centered) thinking of the pre-Socratic Grecians. On this reading, the displacement of *a-lethia* with *veritas*, truth as dis-closure (Heidegger finds this kind of truth in *theoria*) with truth as correspondence (between object and representation) was co-extant with the privileging of the sense of sight to which the pre-Socratic Greeks were ambivalent, and, with the imperial eye (ocularcentrism) instituted, the constitution of education as (readily observable) scholarship and training in good conduct (*eruditio et institutio in bonas artes*) was implemented.

Spanos claims this pedagogical imperialism resonates throughout humanist education from the Enlightenment, and resonates again in the New World Order (in *warspeak*, Full Spectrum Dominance).<sup>21</sup> He writes:

However outrageous it may at first seem to the innocent and well-intentioned disinterested humanist or liberally educated man or woman, this disciplinary strategy—this technology of power—which has as its end the coercive re-formation of de-formed entities or, what is the same thing, the re-centering of the de-centered center and thus of ec-centric or err-atic being in the name of the logocentric norm (the guardian eye of bourgeois humanism) and the consumer capitalist power structure — has been the real agenda informing the "disinter-ested," "liberal" discourse of the post-Enlightenment university.<sup>22</sup>

That university in part dates to Berlin, 1810. In terms of education more generally, the *mission civilsatrice* as exemplified by the Jesuits and Luther's generative development of *compulsed statist* education, is still with us (the system of five hundred years, as world systems theorists call it). Locke, Comenius, and Rousseau simply changed the pedagogy/mode. Their encouragement of the student (Foucault's notion of power as a positive force) more effectively produced and regulated subjectivity, now produced in bourgeois (worldly) terms. This positive constitution of *self* (subjectivation, or, indeed, the process of subjectivization) produced the "ideal (bourgeois) type" of human, the one Foucault identified as the "figure of man," the one not yet two centuries old and, according to Foucault, disappearing.<sup>23</sup>

Education moved to the production of the internally disciplined (Panoptically policed) normatively *responsible self* (the militarized, then military/industrialized *self*). Rousseau in the *Preface* to *Émile* (Paris, 1762) wrote: "In spite of all those books whose only aim, so they say, is public utility, the most useful of all arts—the art of training men—is still neglected." This "training of men" (the installation of bourgeois subjectivity) through allowing children "self-expression," because it was directed to *internal control*, allowed education to move *seamlessly* between a regime of *serial discipline* and one of *differential control systems*.<sup>24</sup>

*Serial discipline* is based in bourgeois time/space, linearity, and conceptions of the human whereby a supposedly autonomous (liberal) *self* is produced (*Bildung*). Serial discipline is manifest in a progressive educational system whereby the student moves from *Kindergarten*, another mid-nineteenth century Prussian invention, to grade schools to "vocational," "academic," or "technological" training. *Differential control* is based in relative and relational differences/difference whereby the electronic mediation of existence displaces bourgeois time with "real time," linearity with temporal and historical simultaneity or serial discontinuity, often diagnosed by humanists as the "loss of cultural memory" and "personal identity."<sup>25</sup> Fictive "individuation" is discursively displaced by "simulation," a concept meant to capture the process of *subjectivization* as electronically mediated *autopoiesis*.<sup>26</sup>

With this subjective change, the production of the warrior/citizen/producer/ consumer of modernity becomes a chimera (*cultural imaginary*). That subjective product has been *virtualized*. A (postliterate) posthumanist human, or sometimes already, the *posthuman* (the prosthetic human, comprised—not augmented—by its *cyborgian* electro/bio/mechanical extensions [tools]) is the ideal type formed through differential control systems.<sup>27</sup>

Differential control is educatively manifest in the euphemism (and practice) of *lifelong learning* (a discourse far from its autodidactic nineteenth century British roots). The concept of *lifelong learning* dates to nineteenth century Prussia as well as to Great Britain. Prussia then already conceived of education as a cradle to grave operation (like Sparta and Plato's *Republic*). Today, like the person it forms (*Umbildung*, forming the electro/mechancial/biorelational system termed "human"), education has transformed into a global learning system geared to a postindustrial economy of relational simulation.<sup>28</sup>

The "new" economy, however, is based even less in *socially necessary* labor (the labor required to maintain existence, including services like health care and education, at a given level) than was the industrial economy of late nineteenth century England, France, or Germany. This *lack* of need for labor *vital* to existence (at a given level), and the socially instilled *desire* to produce *labor as if it were actually needed*, grounds the contemporary *faux* economic system. This renders the prevailing military/economic system (the oil economy) as a vast and serious *farce* (one in which you will die if you do not play your part).<sup>29</sup>

On this rendering, educational activity in postindustrial jurisdictions is dedicated to *systems maintenance*. With systems maintenance (cultural reproduction in symbolic not practical terms) as the *primary* concern, and with diminished social need to form *actually productive labor* of almost any sort, education in postindustrial jurisdictions turns *ludic—an aesthetic project devoted to form not function*. In fugal fashion, education (recursively) wends its way back to its liberal definition become postliberal what with Romanesque discipline (*Bildung*) removed. Donna Haraway provides closure to this narrative *re-creation*:

The main trouble with cyborgs, of course, is that they are the illegitimate offspring of militarism and patriarchal capitalism, not to mention state socialism. But illegitimate offspring are often exceedingly unfaithful to their origins. Their fathers, after all, are inessential.<sup>30</sup>

1. Michel Foucault, Language, Counter-memory, Practice (Ithaca: Cornell University Press, 1977), 154.

2. Gilles Deleuze, "Postscript on Societies of Control," *October* 59, (Winter 1992): 3-7. Deleuze provides a brief sketch that encapsulates Foucault "epochal theory" and Deleuze and Guattari's concept of territorialization/re-territorialization.

3. Fredric Jameson's commentary on the *usefulness* of Brecht for academic production informs this use of *Verfremdung* (estranging the familiar). Fredric Jameson, *Brecht and Method* (New York: Verso, 1998). See as well, G. Douglas Atkins, *Estranging the Familiar: Toward a Revitalized Critical Writing* (Athens, Georgia: the University of Georgia Press, 1991) and G. Douglas Atkins, *Pedagogy is Politics: Literary Theory and Critical Teaching* (Urbana: University of Illinois Press, 1992).

4. The work of populist school reformers John Taylor Gatto and Sheldon Richman addresses the Prussianization of education. The only work I found that deals exclusively with the grounding of mass education in the peculiar social development of Prussia is Frank Ackerman, "Militarism and the Rise of Mass Education in Prussia" (Unpublished paper, Harvard University, 1970).

5. Bill Readings provides a history of the development and changing purpose of the modern university, addressing its development in Germany and its role in the formation of "nation," as adjudicator and guardian of "national culture," and of the way in which that role has been rendered antique because of the recent commercialization of academic culture (the "culture of excellence"). Bill Readings, *The University in Ruins* (Cambridge: Harvard University Press, 1996).

6. Anticipating by a hundred years the systems theory developed by the United States during WW II, for Clausewitz, a human "inner tendency" to war is frustrated by "friction," for example, inadequate information or organization, thus explaining why wars "slow down." Clausewitz's work presaged entropy (the Second Law of Thermodynamics), developed by his *Clausius* in 1854. In what may be the first comprehensive theory of modernization, Clausewitz produced a martial *and* civil operations manual.

7. De Landa writes: "Indeed, a century ago, historian Werner Sombart was already arguing in his book *Krieg und Kaplitalismus* that industrial society itself was a direct product of centuries of military conflict"; Manuel de Landa, *War in the Age of Intelligent Machines* (New York: Zone Books, 1991), 109.

8. Wendy Brown's work informs the use of these concepts. Wendy Brown, *States of Injury* (Princeton: Princeton University Press, 1995).

9. Max Weber, *Economy and Society*, ed. Guenther Roth and Claus Wittich (Berkeley: University of California Press, 1968), 225.

10. Sproule, "Virtual Battlefields: Informatics, 'Irreality' and the Sociology of War," in *Undercurrent: Culture Wars: Round Two*, no. 5 (Fall 1997), 1.

11. Ibid.

12. Martin Shaw, The Dialectics of War: An Essay in the Social Theory of Total War and Peace (London: Pluto, 1988).

13. Ibid.

14. Ibid.

15. Michel Foucault quoted in Kroker, *The Possessed Individual: Technology and the French Postmodern* (Montreal: New World Perspectives, 1992), 48.

16. Michel Foucault, *Power/Knowledge: Selected Interviews and Other Writings*, 1972-1977, ed. Colin Gordon (Brighton: Harvester Press, 1980), 90.

17. Gilles Deleuze and Felix Guattari, A Thousand Plateaus: Capitalism and Schizophrenia (Minneapolis: University of Minnesota Press, 1986), 119.

18. Postindustrial refers to an economy of the *interior*, the production/consumption of immaterial goods as compared to an economy of the exterior based in the production/consumption of material goods. This differs from the original meaning. See Alaine Tourraine, *The Post-Industrial Society: Tomorrow's Social History: Classes, Conflicts and Cultures in the Programmed Society*, trans. L.F.X. Mayhew (New York, Random House, 1971) and Daniel Bell, *The Coming of Post-Industrial Society: A Venture in Social Forecasting* (New York: Basic Books, 1973).

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19. Thomas S. Popkewitz, Barry M. Franklin, and Miguel A. Pereyra, *Cultural History and Education: Critical Essays on Knowledge and Schooling* (New York: Routledge Falmer, 2001), 1-33.

20. Michael Mann, States, War, and Capitalism: Studies in Political Sociology (Oxford: Basil Blackwell, 1988), 240-41.

21. William Spanos, The End of Education (Minneapolis: University of Minnesota Press, 1992), xii-xx.

22. Ibid., 31.

23. Foucault, Order of Things (London: Tavistock, 1970), 308.

24. These concepts are taken from Foucault and Deleuze and Guattari.

25. Fredric Jameson provides the classic definition of the "ideal type" of postmodernity. See *Postmodernism, or the Cultural Logic of Late Capitalism* (Durham: Duke University Press, 1992).

26. Guatarri writes: "At least three types of problem prompt us to enlarge the definition of subjectivity beyond the classical opposition between individual subject and society, and in doing so, revise the models of the unconscious currently in circulation: the irruption of subjective factors at the forefront of current events, the massive development of machinic productions of subjectivity and, finally, the recent prominence of ethological and ecological perspectives on human subjectivity"; Felix Guatarri, *Chaosmosis: an Ethico-Aesthetic Paradigm* (Bloomington: Indiana University Press, 1995), 1-2.

27. The work of Katherine Hayles and Donna Haraway informs this description. See especially, N. Katherine Hayles, *How We Became Posthuman: Virtual Bodes in Cybernetics, Literature and Informatics* (Chicago: University of Chicago Press, 1999).

28. Jameson speaks of Brecht's development, through the character Galy Gay in *Mann ist Mann*, of a prototype of "psychic de and re-construction [*Umbildung*]" (*Brecht and Method*, 77). Winthrop-Young writes: "the old concept of *Bildungsroman*—if it ever was more than an obstinate figment of scholarly imagination—must come to an end; for *Bildung*, programmed by the Goethean algorithm to result in the unfolding of a personality core, was tied to a harmonious mixture of worldly experience with education derived from reading the proper books"; Geoffrey Winthrop-Young, "Media Magic Mountain," *Reading Matters* (Ithaca: Cornell University Press, 1970), 29-52.

29. Postone writes: "At the core of all forms of traditional Marxism is a *transhistorical* conception of labour." "Labor" as a contingent and socially mediated (constructed) process, grounds Postone's post-Marxism. This move denies "labor" its classical Marxist function as a Transcendental Signifier (the labor theory of value), and allows a critique of "work" that follows neither conventional Marxist or classical political/economic analysis. Moishe Postone, *Time, Labor, and Social Domination: A Reinterpretation of Marx's Critical Theory* (New York: Cambridge University Press, 1996).

30. Donna Haraway, "A Manifesto for Cyborgs: Science, Technology, and Socialist Feminism in the 1980s," *Socialist Review* 80 (1985).