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Evolution, Civilization and History: A Response to Wiener and Rosenwein  
J. Carter Wood

I thank both Martin J. Wiener and Barbara H. Rosenwein for their serious and thought-provoking responses to my arguments regarding culture, society and biology.<sup>1</sup> Since, despite a few common themes, they offer dramatically different evaluations of my argument, I shall deal with them separately, replying first relatively briefly to Wiener – with whom I largely agree – and then attending to Rosenwein’s more severe criticisms of my article, evolutionary psychology and the theories of Norbert Elias. Regardless of specific disagreements, however, I find both responses to be ultimately encouraging, for reasons to which I will return at the end of this essay.

## **THE POTENTIAL OF CONSILIENCE AND THE PROMISE OF CO-EVOLUTION**

Martin J. Wiener clearly summarizes how historians can gain from shedding their bio-phobia, and he rightly points out that an important part of the topic I discussed, the history of violence, involves understanding *non-violence*. I agree, and evolved capacities for conflict-avoidance, empathy and self-control – just to name three – deserve more attention. Such studies may incidentally help to dispel the stubborn myth that evolutionary psychology merely presents a relentlessly brutal vision of human life and correct the enduring error of ascribing only the negative features of *Homo sapiens* to its biology while crediting its nobler aspects to some form of transcendent, non-biological ‘culture’. Despite our overall agreement, though, a few of Wiener’s arguments require further comment.

For instance, I am not sure whether evolutionary psychology is more germane to ‘ultimate’ than ‘proximate’ levels of causation. While it often focuses on the former, its greatest value may lie in clarifying connections *between* the general and the particular and in constructing overarching frameworks useful even to those historians who are not mainly

concerned with broad, cross-cultural explanations. Considering the ultimate causes of behaviour almost inevitably leads one to examine the validity of proximate factors, as Martin Daly and Margo Wilson have done with regard to the effects of ‘subcultures of violence’, step-parenthood, economic inequality and life expectancy on homicide.<sup>2</sup> Alongside identifying psychological universals – as important as that is – an evolutionary perspective helps understand cultural variation and even human individuality. In a similar sense, I think Wiener is partly right that the ‘natural field’ of an evolutionarily informed methodology is social history ‘rather than diplomatic or “high” political history’; however, although behavioural patterns do become more visible in larger populations, political history may nonetheless be a valuable context for evolutionary perspectives. This is particularly so regarding historical periods in which political power was far more direct and personal than today. Jerome Kroll and Bernard S. Bachrach, for example, have made an intriguing attempt to address the influence of evolutionary psychology in medieval dynastic arrangements.<sup>3</sup> The potential for developing such an approach, I think, has barely been explored.

Finally, I share Wiener’s interest in ‘co-evolutionary’ processes, since, clearly, biological evolution did not ‘cease effectively operating’ when cultural evolution ‘began’ (whenever *that* might have been).<sup>4</sup> Comparatively ‘recent’ physiological adaptations – such as disease resistance and lactose tolerance – certainly raise the issue of whether similar sorts of psychological changes might have occurred. Evidence will eventually decide this question, but I am sceptical that the model of an enduring underlying psychology that was predominantly shaped during the Pleistocene will be fundamentally challenged. The genetic changes needed to affect the mental mechanisms governing an intricate behaviour (say, the use of physical force) are likely to be highly complex. Also, the adaptive pressures driving the physiological alterations Wiener mentions would have been direct and persistent and have led to significant rewards; it is difficult to see enduring and consistent pressures that would have

triggered equivalently significant psychological changes. While there may have been some psychologically relevant genetic evolution in the last several thousand years (something not denied by most evolutionary psychologists), its *relative* significance has likely been negligible. We have only as much culture as our nature allows, but as both history and anthropology show, our brains can generate significant cultural variability without genetic change or difference, allowing us to deal (sometimes more successfully, sometimes less so) with widely different and rapidly changing environments and social arrangements.

### **THE PERILS OF THE PLEISTOCENE AND THE DUSTBIN OF HISTORIOGRAPHY**

Like Wiener, Barbara H. Rosenwein is enthusiastic about biology. (She may wish to note, however, that genes are not ‘made up of proteins’.<sup>5</sup>) Nonetheless, she thinks I am mainly interested in a version of Darwinian psychology that is not ‘especially biological’ since ‘the biological depends on neurochemical phenomena’ rather than, apparently, evolutionary adaptation. But her emphasis on the neurochemical basis of the mind is an odd critique in this context, since it is a position with which all evolutionary psychologists would agree, even if they would insist that *how* the brain works is not an issue that can be clearly separated from *why* it does so.<sup>6</sup> The view that reconstructions of the deep-historical paths of morphological or psychological development are not ‘biology’ would also surprise evolutionary biologists, whose work is often necessarily speculative (at least compared with PET scans). Like many other sciences (and like history), evolutionary psychology makes justifiable inferences about the past based upon the best available evidence.<sup>7</sup> Contrary to Rosenwein’s claims, most evolutionary psychologists, far from depicting the demands of surviving the Pleistocene as ‘relatively uncomplicated’, see the social tasks Rosenwein cites – ‘negotiating status, masking self-interest, and forming alliances’ – to have been of central importance then as now; John

Tooby and Leda Cosmides, for instance, have focused on social exchange and the complex and subtle ability to detect ‘cheaters’.<sup>8</sup>

Rosenwein also critiques evolutionary psychology’s view of the mind, which she claims ignores consciousness as a ‘general purpose’ psychological mechanism and underestimates mental ‘plasticity’. The underlying, though indirect, intent seems to be to revive a long-standing (though specious) accusation against some versions of evolutionary psychology: that of ‘determinism’. But throwing ‘consciousness’ at the issues of motivation and behaviour is a problematic riposte. Not only is little known about it, some of what *is* known suggests that its importance to everyday life and action can be overstated: ‘the mind’, it has been convincingly argued, ‘is the last to know things’.<sup>9</sup> Rosenwein’s other favoured concept is ‘plasticity’, referring either to capacities ‘to adjust in response to conditions’ or for mental development throughout a lifespan. Both capabilities are already acknowledged by evolutionary psychology, making this critique redundant. Moreover, it is not clear how selection ‘must in the first place’ be ‘for’ plasticity, unless Rosenwein’s aim is to theorize a biological version of the mind as a ‘blank slate’. Just as adaptation cannot create a ‘general purpose’ organ, it is unlikely that it would result in a psychological mechanism whose primary function is to produce fully open-ended behaviour. It is more plausible that evolutionary processes (among them adaptation) have formed specific mechanisms that are to some degree sensitive to environmental stimuli and govern the psychology that shapes behaviour. With regard to violence, such mechanisms generate aggressive emotions, concerns about status, tendencies toward sexual jealousy, capacities to grant or withhold empathy and capabilities to exercise self-control. Exploring interactions among these coexisting (and sometimes competing) mechanisms, changing social contexts and cultural beliefs will provide better explanations than simply assuming an ill-defined behavioural ‘plasticity’. A final point regarding psychology: research on murderers’ possibly ‘abnormal’ brains is indeed intriguing

(if highly tentative); however, it does not refute the notion that the neural devices governing violence have evolved. Quite aside from the simple fact that what is ‘abnormal’ tends to be an overdeveloped (or underdeveloped) version of what is ‘normal’, it is doubtful that most violence throughout history (and pre-history) resulted from ‘abnormal’ brains. If so, how do we account for the 20 to 50-fold reduction in homicide rates in much of Western Europe between the fifteenth and mid twentieth centuries?<sup>10</sup> A corresponding reduction in the prevalence of brain ‘abnormalities’ is unlikely to say the least.

Rosenwein is even more dismissive of Norbert Elias than of evolutionary psychology. I have no wish to ‘consecrate’ Elias (or anyone else) as a ‘theoretical guru’, but I must respond to Rosenwein’s mischaracterizations of his work. For example, Elias saw social development as neither automatic nor one-directional, observing that stable and pacified societies require ‘a relatively high standard of living and a fairly high degree of security’ and predicting that the ‘armor of civilized conduct would crumble very rapidly’ in response to certain kinds of social change.<sup>11</sup> Rosenwein seems unaware that Elias wrote anything after 1939, but ‘de-civilization’ processes came to play an even larger role in later work, where he also emphasized the distinction between ‘irreversible biological evolution in Darwin’s sense and the development of human societies, which takes place in the framework of the same biological species and which, under certain identifiable conditions, can be partly or completely reversed’.<sup>12</sup> In his analysis of the rise of Nazism, Elias argued that, as Abram de Swaan has put it, “‘civilization’ is not a permanent state but rather a precarious process, that may very well reverse itself”.<sup>13</sup> (Even his original interest in ‘civilization’ seems to have been sparked by witnessing its disintegration in Germany.<sup>14</sup>) Other scholars have further developed the notion of de-civilization, which is now an important element in figurational sociology.<sup>15</sup>

It is also utterly wrong to claim that Elias believed the psyche ‘underwent an extraordinary transformation, gaining a super-ego for the first time’ in the sixteenth century.

Elias *never* claimed the sudden emergence (at any point in history) of a previously absent psychological mechanism of self-control, and he was always adamant that his concepts could only be understood in a relative sense:

Our habits of thinking incline us to look for ‘beginnings’; but there is nowhere in the development of people a ‘point’ before which one could say: hitherto there was no ‘ratio’ and now it has ‘arisen’; hitherto there were no self-compulsions and no ‘super-ego’ and now, in this or that century, they are suddenly there. There is no zero-point in all of these data.<sup>16</sup>

This clear statement – from the same book Rosenwein quotes selectively to claim the opposite – reflects Elias’s consistent emphasis throughout his life’s work on *gradual* change and the *relative* nature of social comparisons. Although Rosenwein sees evidence of self-control before the Age of Absolutism as a refutation of Elias’s theory, it was something of which Elias was already aware.<sup>17</sup> Nor did he leave ‘all but the last 500 years of European history in the dust’: in *The Civilizing Process*, he often discussed social changes reaching back as far as the eleventh or twelfth centuries. (Even if it is true that most of Elias’s work deals with post-medieval history, it would seem somehow inappropriate – from our highly specialized age – to reproach him for limiting his research to a mere half-millennium.) Rosenwein might dislike Elias’s depiction of medieval society, but she cannot fairly claim that he ignored it.

Rosenwein, finally, rejects linking Elias’s sociology to evolutionary psychology because the former is ‘not biological’ and fails to ‘accord with’ the latter’s focus on the Pleistocene as the key era in which human mental mechanisms were formed. (Curiously, having labelled the ‘Cosmides/Tooby school’ as ‘not very biological’, they subsequently appear in her list of ‘biological sciences’ when it comes to attacking Elias.) No one could claim that Elias was a biologist, but he did concentrate on the ways that social and cultural processes interacted with a psychology produced by evolution. He may never have referred to the ‘environment of evolutionary adaptedness’, but he was convinced that human nature (the ‘central, unalterable factor in all societies’<sup>18</sup>) was the source not only of universals in different

societies but also of their particularities and tendencies to change. Suggesting a ‘good and serious examination question which is set all too infrequently’, he asked, ‘Which biological characteristics are prerequisites for the changeability, and particularity for the capacity for development, shown by human societies?’<sup>19</sup> His own answer was that

people are *naturally* adapted to change and constitutionally equipped with organs which enable them to learn constantly, to store up new experiences all the time, to adjust their behaviour correspondingly, and to change the pattern of their social life together. Their peculiar changefulness, which has arisen through evolutionary change, is itself the changeless factor at issue here.<sup>20</sup>

Nevertheless, Rosenwein finds my attempt to bring together Elias’s theory and evolutionary psychology ‘forced’ and based merely on ‘a few parallels’. I disagree, but my point in any case was never to suggest that Elias and evolutionary psychologists have said the same things. Had they done so, there would have been little reason to point it out. Instead, I argued that – through very different routes – they had reached some significant and intriguingly overlapping conclusions about psychology and social life. Elias might have had a somewhat vague view of the natural basis of human beings’ ‘peculiar changefulness’, but this is one of the areas where evolutionary psychology and other biological perspectives can be most helpful. Steven Pinker has recently observed that Elias’s emphasis on ‘increases in self-control, long-term planning, and sensitivity to the thoughts and feelings of others’ are ‘precisely the functions that today’s cognitive neuroscientists attribute to the prefrontal cortex’, and he draws attention to the issue of why growing social complexity encouraged greater reliance on such innate mental abilities.<sup>21</sup> Brain scans alone will not provide an answer to that question. While there are challenges in bringing together two different approaches to behaviour, I think they are outweighed by the potential for developing a framework that connects ‘neurochemical phenomena’ to the histories (and ‘metahistories’ to which Wiener refers) of social interaction, state development and cultural inventiveness. Rosenwein seems



to see theories as fixed, static things to be adopted or discarded whole cloth, but this is a view I find needlessly short sighted.

In conclusion, however, the fact that both respondents advocate a significant role for biological perspectives on history (even if we disagree to varying extents about precisely what it can or should be) allows me to end my own essay on positive note. Indeed, both Wiener and Rosenwein, in one way or another, have argued that the evolutionary psychology about which I mainly wrote does not go *far enough* in the analysis of biological influences on human behaviour. Given the comments that sparked my original article and my personal experience with some historians' intense dislike of biological explanations of behaviour, this was not quite the response I expected. The surprise, I must say, is a pleasant one.

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<sup>1</sup> J. Carter Wood, 'The Limits of Culture? Society, Evolutionary Psychology and the History of Violence', *Cultural and Social History*, 4 (2007): 95-114.

<sup>2</sup> Martin Daly and Margo Wilson, *Homicide* (Hawthorne, 1988), pp. 279-91; Martin Daly and Margo Wilson, *The Truth About Cinderella: A Darwinian View of Parental Love* (London, 1998); Margo Wilson and Martin Daly, 'Life Expectancy, Economic Inequality, Homicide and Reproductive Timing in Chicago Neighbourhoods', *British Medical Journal*, 314 (1997): 1271-4. On the utility of such approaches, see Kenneth Polk, 'Violence, Masculinity and Evolution: A Comment on Daly and Wilson', *Theoretical Criminology*, 2 (1998): 461-69.

<sup>3</sup> Jerome Kroll and Bernard S. Bachrach, 'Medieval Dynastic Decisions: Evolutionary Biology and Historical Explanation', *Journal of Interdisciplinary History*, 21 (1990): 1-28.

<sup>4</sup> An excellent recent statement of co-evolutionary principles can be found in Linda Stone and Paul F. Lurquin with L. Luca Cavalli-Sforza, *Genes, Culture, and Human Evolution: A Synthesis* (Oxford, 2007).

<sup>5</sup> *Ibid.*, pp. 64-70.

<sup>6</sup> Austen L. Krill, et al., 'Where Evolutionary Psychology Meets Cognitive Neuroscience: A Précis to Evolutionary Cognitive Neuroscience', *Evolutionary Psychology*, 5 (2007): 232-56; Michael S. Gazzaniga, *The Mind's Past* (Berkeley, 1998), pp. 5-6.

<sup>7</sup> See e.g. David M. Buss et al., 'Interactionism, Flexibility and Inferences About the Past', *American Psychologist*, 54 (1999): pp. 443-5.

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- <sup>8</sup> E.g. Leda Cosmides and John Tooby, 'Evolutionary Psychology and the Generation of Culture: Part II. Case Study: A Computational Theory of Social Exchange', *Ethology and Sociobiology*, 10 (1989): 51–97; Leda Cosmides and John Tooby, 'Neurocognitive Adaptations Designed for Social Exchange', in D. M. Buss (ed.), *The Handbook of Evolutionary Psychology* (Hoboken, 2005), pp. 584-627.
- <sup>9</sup> Gazzaniga, *Mind's Past*, p. 1.
- <sup>10</sup> Manuel Eisner, 'Modernization, Self-Control and Lethal Violence: The Long-Term Dynamics of European Homicide Rates in Theoretical Perspective', *British Journal of Criminology*, 41 (2001): 618-38, p. 629, Table 1.
- <sup>11</sup> Norbert Elias, *The Civilizing Process: The History of Manners and State Formation and Civilization* (Oxford, 1994), pp. 506, 253.
- <sup>12</sup> Norbert Elias, Robert van Krieken and Eric Dunning, 'Towards a Theory of Social Processes: A Translation', *British Journal of Sociology*, 48 (1997): 355-83, p. 362. (Originally published in German in 1977)
- <sup>13</sup> Abram de Swaan, 'Discivilization, Mass Extermination and the State', *Theory, Culture & Society*, 18 (2001): 265-76, p. 266; Norbert Elias, *The Germans: Power Struggles and the Development of Habitus in the Nineteenth and Twentieth Centuries*, ed. Michael Schroeter, trans. Eric Dunning and Stephen Mennell, (New York, 1996).
- <sup>14</sup> Jonathan Fletcher, *Violence and Civilization: An Introduction to the Work of Norbert Elias* (Cambridge, 1997), p. 176.
- <sup>15</sup> Fletcher, *Violence and Civilization*; Stephen Mennell, 'Decivilizing Processes: Theoretical Significance and Some Lines of Research', *International Sociology*, 5 (1990): 205-23; Eric Dunning and Stephen Mennell, 'Elias on Germany, Nazism and the Holocaust: On the Balance between "Civilizing" and "Decivilizing" Trends in the Social Development of Western Europe', *British Journal of Sociology*, 49, no. 3 (1998): 339-57; Robert van Krieken, 'The Barbarism of Civilization: Cultural Genocide and the "Stolen Generations"', *British Journal of Sociology*, 50 (1999): 297-315.
- <sup>16</sup> Elias, *Civilizing Process*, 480.
- <sup>17</sup> Elias, *Civilizing Process*, 451.
- <sup>18</sup> Norbert Elias, *What is Sociology?*, trans. Stephen Mennell and Grace Morrissey (Columbia, 1978 [1970]), p. 107.
- <sup>19</sup> Elias, *What is Sociology?*, 107.
- <sup>20</sup> Elias, *What is Sociology?*, 115. Emphasis in original.
- <sup>21</sup> Steven Pinker, 'A History of Violence', *The New Republic*, 19 March 2007. The article is also available at [http://www.edge.org/3rd\\_culture/pinker07/pinker07\\_index.html](http://www.edge.org/3rd_culture/pinker07/pinker07_index.html), accessed 7 August 2007.