How Conservative Are Evolutionary Anthropologists? A Survey of Political Attitudes

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Published online: 11 August 2012

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Abstract The application of evolutionary theory to human behavior has elicited a variety of critiques, some of which charge that this approach expresses or encourages conservative or reactionary political agendas. In a survey of graduate students in psychology, Tybur, Miller, and Gangestad (*Human Nature*, 18, 313–328, 2007) found that the political attitudes of those who use an evolutionary approach did not differ from those of other psychology grad students. Here, we present results from a directed online survey of a broad sample of graduate students in anthropology that assays political views. We found that evolutionary anthropology graduate students were very liberal in their political beliefs, overwhelmingly voted for a liberal U.S. presidential candidate in the 2008 election, and identified with liberal political parties; in this, they were almost indistinguishable from non-evolutionary anthropology students. Our results contradict the view that evolutionary anthropologists hold conservative or reactionary political views. We discuss some possible reasons for the persistence of this view in terms of the sociology of science.

Keywords Politics and science · Evolutionary anthropology · Political attitudes in anthropology

Although the Darwinian evolutionary framework is widely accepted within contemporary anthropology, its application to human behavior remains controversial. The roots of this controversy lie in the "sociobiology debate" of the 1970s and 1980s, one of the most divisive and politicized debates in the social sciences. This debate was sparked by the release of E. O. Wilson's *Sociobiology: A New Synthesis* (Wilson 1975). In his closing chapter, Wilson discussed the evolutionary significance of gender differences, aggression, and xenophobia (among other contentious topics), challenging the traditional social science perspective that human cultural behavior is autonomous. Wilson's ideas were immediately challenged as sociopolitically

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dangerous and scientifically unfounded, with anthropologists prominent among the critics (Geertz 1980; Sahlins 1976; Washburn 1978; various authors in Barlow and Silverberg 1980). Most significantly, some argued that sociobiologists were motivated by conservative or reactionary principles, and specifically that they favored the status quo and advanced a theory that provided genetic justification for gender and ethnic inequality (Allen et al. 1975). These accusations proved remarkably persistent, despite the fact that some prominent practitioners of sociobiology publicly expressed leftist views (Segerstrale 2000).

While the label "sociobiology" has largely faded away, the perspective inspired evolutionary approaches to behavior in a wide range of disciplines, including anthropology (Laland and Brown 2002). In anthropology, an AAA double symposium in 1976 led to an edited volume (Chagnon and Irons 1979) containing work by many anthropologists who went on to publish extensively in this research tradition, as well as train PhDs in the following decades (as represented in Betzig et al. 1988; Cronk et al. 2000; Smith and Winterhalder 1992). Currently, evolutionary analyses of human behavior are well represented in the primary subdisciplines of anthropology. Leading anthropological journals such as *Current Anthropology* and *Evolutionary Anthropology* regularly publish evolutionary analyses of human behavior, as do various high-impact interdisciplinary journals (such as *Evolution and Human Behavior*, *Human Nature*, and *Proceedings of the Royal Society B: Biological Sciences*).

At the same time, the politicized controversies of the sociobiology debate continue to reverberate within anthropology and other fields, in spoken remarks, tacit understandings, and published statements. Indeed, considerable opposition and even hostility toward it persists (reviewed in Laland and Brown 2002; Segerstrale 2000; Hagen 2005). Like sociobiologists thirty years ago, evolutionary social scientists are periodically charged with supporting conservative social positions and favoring the status quo. We are told that "Throughout its history, the political right has most often used a version of natural selection in support of political agendas. This continues today: in the social sciences (with the exception of primatology and psychology) sociobiology appeals most to right-wing social scientists" (Pavelka 2002:42). Critiquing the concept of ecological adaptation in medical and biological anthropology, Singer (1996:498) castigates "the conservative agenda of biological anthropology or biology itself." A critique of the evolutionary approach to ecological variation in behavior concludes with a call for "a new evolutionary ecology, one that goes beyond the apologetic capitalist world-view of biology" (Joseph 2000:24).

In a monograph entitled *Neo-liberal Genetics*, anthropologist Susan McKinnon portrays a "neo-liberal bio-economic narrative of our evolutionary past and contemporary nature" that is "produced in the context of the increasing cultural dominance of neo-liberal economic values and their reflection in the genetic individualism of evolutionary psychology" (McKinnon 2005:71). McKinnon (2005:129) characterizes the "biologically reductive accounts" of anthropologists Napoleon Chagnon, Kim Hill, and Magdalena Hurtado as supporting the same dangerous agenda, and charges that

¹ In response to Joseph, Winterhalder (2002:14) wrote "In as much as there is no explicit discussion in Joseph's essay of apologism, capitalism or the world-view of biology, it is difficult to read this statement except as a kind of code, one that calls up ideological disapproval based on undocumented allegations about the politics of a field and those who practice it. It accuses, but offers no content to which there can be a response."



The notion of genetic individualism relies, explicitly or implicitly, upon the cultural values of neo-liberal economic theory: that social relations can be reduced to market relations; that the "public good" should be replaced by individual responsibility and social services privatized; that profit and capital should be maximized through the deregulation of markets—that is, that competition should run its course unchecked—in a "race to the bottom"—regardless of the social consequences (McKinnon 2005:44).

Similar discussions linking contemporary evolutionary analyses of human behavior, as conducted by anthropologists and other social scientists, to reactionary politics can be found elsewhere (e.g., Marks 1999, 2000; Rose and Rose 2000; Singer 1989; Dagg 2005).

Although evolutionary psychology (EP) is often the explicit target of these attacks, presumably because of its prominence in the media, fine distinctions between disciplines or theoretical frameworks are not necessarily noted. Importantly, some anthropologists self-identify their approach as EP (e.g., Barkow 2006; Fessler 2006; Hagen 2005; Symons 1992; Tooby and Cosmides 1992), although other evolutionary behavioral anthropologists explicitly distinguish their approach from EP on various methodological and conceptual grounds (e.g., Smith et al. 2001). Regardless of any such distinctions, many anthropologists who analyze human behavior using Darwinian theory are subject to being linked to EP or sociobiology by critics.

The "darkness in El Dorado" controversy brought some of these issues into prominence well outside of academia (Geertz 2001; Mann 2001). In a published critique, Turner (2005:202-3) stated:

The attempt to account for human social structure as somehow determined by genetic differences in ability or capacity for leadership, which is fundamental to Neel's and Chagnon's accounts, is simply not defensible in scientific terms. That it is nevertheless defended as "science" by sociobiologists must therefore be understood as a manifestation of ideology. Its ideological character is underlined by its reductionism of intrinsically social phenomena to expressions of intrinsically individual properties. It is of course for such reasons that most scientists (including anthropological social scientists) view sociobiology as a kind of ideology, not as "science."

Turner's use of the term "ideology" (and similar language by McKinnon and others cited above) suggests that the issues involved here are not questions of scientific accuracy, but rather of a pernicious agenda. The fact that Turner identifies "sociobiology" with both a genetic determinist theory of individual differences and an evolutionary account of social structure is quite problematic, as most evolutionary social scientists, including those who might be termed sociobiologists, focus on universal evolved propensities rather than individual genetic differences; we do not have room to discuss this issue further, but see Irons (1979) and Smith (2011), among many others, for further discussion.

Some have even claimed that adaptationist principles embraced by some evolutionary anthropologists (EAs) have links to eugenics and to Nazi racial purity laws (Ehrlich and Feldman 2003; Marks 1999). Although such extreme criticisms are not often committed to print, a more general view that application of evolutionary



principles to human behavior is politically tainted appears widespread (Segerstrale 2000). If this charge were true, it would have serious implications for the legitimacy of evolutionary analyses of human behavior, including those by anthropologists.

Following the 2004 U.S. presidential elections, a group of evolutionary psychologists from the University of New Mexico tested what they called the "adaptationists as right wing conspirators hypothesis." Tybur and colleagues (2007) surveyed graduate students in psychology at six universities to see if the political attitudes of EP students conformed to this hypothesis. Comparing EP grad students with non-EP students and with data from the general public, they found that EP grad students were considerably less conservative than the general public in their political beliefs and candidate and party preferences, and the political beliefs of EP students and their non-EP colleagues were mostly homogeneous (Tybur et al. 2007). Here, we present and discuss a similar study with data collected from graduate students in anthropology. We test the hypothesis that evolutionary anthropology graduate students hold politically conservative views, which we call the EAPC (evolutionary anthropologists as politically conservative) hypothesis. We discuss below some definitions and nuances of terms describing political views, and their place in American political discourse.

Methods

Following institutional review board approval from the University of Washington, we set up a targeted but anonymous web-based survey. Email addresses (n=2,610) of anthropology students were collected from departmental websites across the United States, simply on the basis of public (internet) availability. From this sample we randomly selected 1,200 individuals to receive an email inviting survey participation. To ensure a sufficiently large sample of students with evolutionary orientation, we also sent the survey invitation to all graduate student members of the Evolutionary Anthropology Society (n=145), a section of the American Anthropological Association. We chose not to survey faculty, for two reasons: this would have greatly reduced comparability with the Tybur et al. study, and we expected that the response rate would be much lower than with students, and likely involve strong self-selection bias. A link to an anonymous online survey was sent via email in the days prior to the 2008 U.S. presidential election. Prospective participants read a consent form and were asked to complete a survey that approached social and economic issues in the U.S. and aimed to study the context of variation in political attitudes of anthropology students. After correcting for email bounces (n=54), we had a response rate of 26.1% (n=299). This response rate is highly conservative, since some of those recruited might not have received the invitation owing to engagement in fieldwork or recent termination of graduate studies. Because the survey was anonymous, we have no way of knowing if this response rate differed between the random sample and the Evolutionary Anthropology Society sample.

Survey Instrument

We adapted the survey instrument successfully employed in the aforementioned study by Tybur and colleagues (2007), with slight modifications reflecting the target



audience (anthropologists) and the date (late 2008), in addition to other minor changes.² The survey contained basic demographic items, assayed political affiliation, and recorded candidate preference in the 2008 U.S. presidential election. Participants were asked "What is your primary theoretical perspective within Anthropology?" and were given five options to select from: "Symbolic/Ideational," "Ecological/Cultural Materialism," "Critical Theory/Political Economy," "Evolutionary," and "Other." Those who selected "evolutionary" were branched in the survey to an additional question that asked "Do your theoretical interests in evolutionary theory include the study of human behavior?" Participants were also asked where they fall on the left-right political spectrum (from +3=very liberal to -3=very conservative) in regards to social and economic issues (Table 1, items 1 and 2). In addition, the survey included a series of items that approached specific issues in U.S. politics measured on a seven-point Likert-style scale: (+3) strongly agree, (0) undecided, and (-3) strongly disagree (Table 1, items 3–15). Tybur et al. (2007) conducted a principal axis factor analysis of the survey instrument and identified three factors they called (1) individual rights, (2) political compassion, and (3) wealth distribution (Table 1). These factors fit our data well and yield acceptable Cronbach's alpha levels despite the relatively small number of items in each factor: individual rights (n=5; $\alpha=0.70$), political compassion (n=4; $\alpha=0.60$), and wealth distribution (n=6; $\alpha=0.66$) (Table 1).

Analyses

The EAPC hypothesis predicts that EA students possess politically conservative principles and support candidates and parties with conservative ideologies. In order to test these predictions, we employed several comparisons. First, we used data from various sources to compare EA students with the general public on two key variables that examine the EAPC hypothesis: candidate preference and party affiliation. These comparisons were assayed using the chi-square test.

Second, we gauged the political leanings of EA students based on their responses to the Likert-style survey items. The EAPC hypothesis predicts that EA students will respond in a politically conservative direction on the political attitude survey items. The attitudinal items in the survey are politically divisive, addressing current issues that divide along party lines and exemplify the conservative-liberal dichotomy in U.S. politics. Several positions included in our survey, such as abortion rights, privatizing social security, marriage rights for homosexuals, and the legalization of marijuana, tend to be supported by about half of the U.S. public (www.pollingreport.com, www.gallup.com, accessed July 2009). Based on these facts it is logical to consider responses to one side of the scale as liberal and responses to the other side as

² We eliminated one item from the Tybur et al. (2007) study, "Religion is an important part of my life" (which was a "conservative" item categorized in the individual rights factor) because we felt that this item does not assess a person's political views (i.e., liberals are often religious too). Further, Tybur and colleagues removed this item from one of their analyses since it is likely that evolutionary folks (independent of political attitudes) are comparatively less religious since evolutionary accounts of human origins are antagonistic with most religious accounts. We also made slight modifications to the wording of items 6, 7, and 13 for clarity.



Table 1 Participants' responses to survey items

Items		EA students			Non-EA students			
	N	Mean	SD	N	Mean	SD	value ^a	
What best describes your position on social issues? ^{b,e}	86	2.14***	1.08	184	2.05***	.97	.279	
2. What best describes your position on economic issues? ^{e,e}	86	.99***	1.56	181	1.21***	1.38	.373	
Individual rights ^f								
3. Homosexuals should have the same marriage rights as heterosexuals. (liberal) ^d	86	2.57***	1.09	184	2.58***	1.07	.895	
4. It should be legal for adults to grow, sell, and smoke marijuana. (liberal)	86	1.35***	1.86	184	1.23***	1.69	.299	
5. The government should have no say in when or if a woman can have an abortion. (liberal)	86	2.09***	1.54	185	1.74***	1.90	.206	
6. The government should scrupulously maintain the separation of church and state. (liberal)	86	2.65***	.98	185	2.45***	1.10	.025	
Political compassion ^f								
7. People have a responsibility to act in environmentally sustainable ways. (liberal)	85	2.25***	1.33	185	2.50***	.85	.528	
8. The government has the right to engage in preemptive military action against another country if it feels the country poses a security threat. (conservative)	86	-1.14***	1.70	185	-1.56***	1.47	.054	
9. The US government should provide universal health care to its citizens. (liberal)	86	1.95***	1.63	185	2.41***	1.03	.064	
10. The minimum wage should be raised significantly. (liberal)	86	1.42***	1.66	183	2.04***	1.04	.007	
Wealth distribution ^f								
11. I'd be in favor of significantly cutting the federal income tax. (conservative)	86	80***	1.67	183	84***	1.50	.935	
12. I'm in favor of a flat tax in which everyone pays the same percentage of their income in taxes, regardless of how much money they make. (conservative)	86	-1.55***	1.75	185	-1.40***	1.80	.549	
13. The federal government expends funds in a very inefficient way. (conservative)	85	1.55***	1.31	185	1.44***	1.42	.656	
14. I'm in favor of privatizing social security. (conservative)	86	-1.79***	1.53	182	-2.13***	1.41	.010	
15. High taxes are okay because our society requires a large amount of government spending. (liberal)	86	.74***	1.87	185	.85***	1.70	.895	

^{***}P<0.001; Comparing the mean to the midpoint on the scale (neutral), using a one sample t-test

f Participants answered on a 7-point Likert scale (+3 strongly agree, 0 neutral, -3 strongly disagree)



^a Differences between EA students and non-EA students, using the Mann-Whitney U-test

^b Included in the individual rights factor following Tybur et al. 2007

^c Included in wealth distribution factor following Tybur et al. 2007

d The "liberal" and "conservative" labels following each survey item below are for reference purposes and were not present in the survey

^e Participants responded to statements on a 7-point scale (+3 very liberal, -3 very conservative)

Factor	EA students		Non-EA students				
	Ratio Conservative: Liberal Responses ^b	Percent Liberal responses b	Ratio Conservative: Liberal Responses ^b	Percent Liberal responses b			
Individual rights	26:297***	92.0%	65:622***	90.5%			
Political compassion	39:286***	88.0%	34:669***	95.2%			
Wealth distribution	137:251***	64.7%	258:529***	67.2%			

Table 2 Ratio of conservative responses to liberal responses^a

conservative. Following Tybur et al. (2007) method of analysis, we compared EA student responses with the midpoint (0) of the 7-point scale for items 1–15 (Table 1). This is a practical method of assessment since, as argued above, most items reasonably represent a liberal-conservative political spectrum.³ We also calculated the ratio of conservative-leaning participants to liberal-leaning participants for each factor. This was calculated by averaging the item means in each factor for each participant; those with a negative factor mean were categorized as "conservative-leaning" while those with a positive factor mean were categorized as "liberal-leaning." Items labeled as "conservative" (Table 1) were sign-corrected prior to this analysis; "undecided" selections were treated as missing data (Table 2). A one-sample chi-square test of proportions (with a predicted proportion of 0.5) was used to classify ideological allegiances—that is, to determine if EA students or non-EA students lean to the political left or right for each factor.

Finally, we compared the survey responses of EA students with those of non-EA students. Of course, this test does not approach the EAPC hypothesis as directly as the above analyses since social scientists tend to be more liberal than the general public. However, examining the political position of EA students relative to their non-EA peers should prove enlightening, since if evolutionary theory is used to justify politically conservative views, one might expect this to result in either self-selection (those with preexisting conservative views gravitating toward evolutionary perspectives) or indoctrination (those who for other reasons study evolutionary theory and become more conservative). Comparisons between EA students and non-EA students with regard to the attitudinal items in Table 1 were assayed using the Mann-Whitney *U*-test. Comparisons between EA students and non-EA students with regard to candidate and party preference were assessed using Fisher's exact test instead of the chi-square test owing to the small number of McCain supporters and followers of the Republican Party in our sample.

 $^{^3}$ For this analysis we used one-sample *t*-test to compare item mean scores with the midpoint (0) of the scale. Since this midpoint represents moderate political beliefs, this analysis is rather generous to the EAPC hypothesis. That is, finding no statistically significant differences between the responses of EAs and the midpoint would tell us they are indistinguishable from moderates, rather than being truly conservative or right-wing.



^{***}P<0.001; p-value from a one-sample chi-square test of proportions (with a predicted proportion of 0.5)

^a Items 3-15 in Table 1

b Responses to the midpoint of the scale (neutral) were treated as missing data

Results

Participants

A total of 299 participants took the survey. We excluded 10 participants who were not students in anthropology and 18 participants who skipped items necessary for analysis, for a final sample of 271 participants. The sample is geographically diverse, with participants from 34 states, including the five most conservative states according to a recent Gallup Poll (www.gallup.com, accessed July 2009). This assures us that our sample is not geographically biased, and it validates the comparisons we make between the EA sample and that of the general public regarding political beliefs. In our sample 58.7% (n=158) were female, 40.5% (n=158) were female, 40.5% (n=158) 109) were male, and 1.5% (n=4) selected "other" or did not respond to this item. The age of the participants was distributed as follows: 11.5% were 19-24 years of age, 47.8% were 25-30 years of age, 25.6% were 31-36 years of age, and 15.2% were over the age of 36 years. Of the respondents included in the analysis (n=271), 31.7% (n=86) selected "evolutionary" as their principal theoretical orientation. Of those who selected "evolutionary," 88% stated that their theoretical interest included the study of behavior, whereas only 10 participants did not. We ran each analysis three times: first, placing those 10 participants in the non-evolutionary sample; second, placing them in the evolutionary sample; and third, taking the 10 participants out of the analyses altogether. We found that the EAPC hypothesis was overwhelmingly rejected regardless of where we placed these individuals. Thus, we decided to include these participants in the EA sample since they embrace evolutionary theory. Those who selected a different theoretical orientation (referred to as non-EA students) comprised the remaining 68.3% (n=185) of the participants. Of the non-EA sample, 13.0% chose "Symbolic/Ideational," 12.4% chose "Ecological/Cultural Materialism," 44.9% chose "Critical Theory/Political Economy," and 29.7% selected "Other."

Political Affiliation

The majority of participants (64.3%, n=173) identified with the Democratic Party, with the Republican Party coming in near last (1.9%, n=5) among the six options (Fig. 1). The reported political affiliations of EA students were virtually identical to those of non-EA respondents (Fig. 1). There were no differences between EA and non-EA regarding Democratic Party preference (Fisher's exact test; p=0.89) or Republican Party preference (Fisher's exact test; p=1.0). Group differences for other party preferences were also not statistically significant. We also compared EA students with the general public regarding political affiliation. Using data from a Gallup poll (www.gallup.com, accessed July 2009) conducted in 2008 (N=3,000 U.S. citizens) during the same week we sent out our survey, we found that a significantly higher proportion of EA students identified with the Democratic Party (65%) than was the case in the general public (36%) ($\chi^2=30.5$; df=1; p<0.0001). In addition, a dramatically smaller percentage of EA students identified with the Republican Party (2.4%) compared with the Gallup poll respondents (28%) ($\chi^2=27.8$; df=1; p<0.0001).



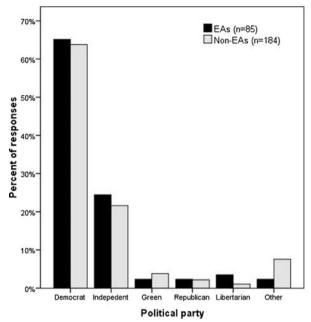


Fig. 1 Responses regarding party affiliation

Candidate Preference

Most respondents said they were supporting Barack Obama in the 2008 U.S. presidential election, with John McCain trailing far behind (Fig. 2). Again, there were no

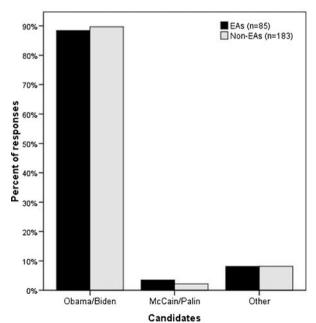


Fig. 2 Responses regarding presidential candidate preferences



statistically significant differences between EA and non-EA students with regard to candidate preference. EA students were not more likely to vote Republican (McCain) compared with non-EA students (Fischer's exact test; p=0.68), and non-EA students were not more likely to vote Democratic (Obama) (Fischer's exact test; p=0.83). Statistically significant differences were also absent for other candidate preferences. We also compared the candidate preference of EA students with the general public, using data from the final results of the general election (http://www.fec.gov/). A considerably higher proportion of EA students voted for Barack Obama compared with the U.S. public (χ^2 =43.4; df=1; p<0.0001), and a considerably smaller proportion of EA students voted for John McCain (χ^2 =61.7; df=1; p<0.0001). We see a similar pattern when comparing EA students in our sample only with other U.S. voters who have an undergraduate degree. Whereas 51% of Americans with a college degree voted for President Obama (www.gallup.com), 88% of EA students voted for President Obama. There was even a higher percentage of EA students who voted for President Obama (88%) than Americans with a postgraduate degree (65%) (www.gallup.com).

Political Attitudes

Regarding their general position on "social issues," EA students self-reported highly liberal sentiment, and the same was true regarding "economic issues"; EA students were slightly more liberal regarding social issues and non-EA students were slightly more liberal on economic issues, but these differences were not statistically significant (Table 1, items 1 and 2). Overall, a general pattern of highly liberal political views was observed, with only three items showing significant differences between EA and non-EA students (Table 1).

Regarding individual rights, the great majority of EA students exhibited liberal views on abortion rights, legalization of marijuana, separation of church and state, and same-sex marriage (Table 1, items 3–6). In fact, each item mean was significantly different (in the liberal direction) from the midpoint of the scale. For the individual rights items, there were only subtle differences between non-EA and EA students, with the exception that EA students were more liberal in regard to the topic of separation of church and state (Table 1, item 6). Finally, the ratio of conservative to liberal responses clearly demonstrates the politically left views of most EA students (and non-EAs as well) in regard to individual rights (Table 2).

EA responses were significantly to the "left" of the scale midpoint for all political compassion items; EA students exhibited liberal views on minimum wage, the environment, military action, and universal health care (Table 1, items 7–10). The overall ratio of conservative to liberal responses for this factor further supports this finding (Table 2). However, non-EA students felt more strongly than EA students that the minimum wage should be raised significantly (p=0.007) and were more liberal on the topic of preemptive military action (p=0.054).

Regarding wealth distribution, EA students exhibited liberal views on taxation, government spending, and social security (Table 1, items 11–15). EA student responses were significantly to the "left" of the scale midpoint for all items in the wealth distribution factor except regarding inefficiency in government spending, but on this the non-EA students had similar views; we return to the significance of this



item in the "Discussion." There were similar viewpoints among EA-students and non-EA students for the wealth distribution items. The ratio of conservative to liberal responses indicates that on average EA students possess liberal viewpoints on wealth distribution (Table 2).

We compared the EA and non-EA samples to see if the two were different in ways that might account for our results, focusing particularly on gender, geographic residence, and age. There is a higher percentage of men in the EA sample (65.4%) than in the non-EA sample (45%); this difference is statistically significant ($\chi^2 = 9.12$; df=1; p=0.003) and parallels the higher percentage of male graduate students in the biological sciences than in cultural/social anthropology (http://www.nsf.gov/ statistics, accessed June 2009). Compared with U.S. men, U.S. women tend to identify more with liberal political beliefs and vote for liberal candidates. For instance, in the 2008 presidential election 50% of men voted for Obama compared with 57% of women, and a poll conducted around the time of our survey shows that 41% of women identify with the Democratic Party and 27% identify with the Republican Party (www.gallup.com, accessed July 2009). Indeed, women in the EA sample were slightly more to the left than men on 10 of the 15 survey items. The larger number of men in the EA sample makes it all the more striking that EA respondents were indistinguishable from non-EA ones on almost all questions and suggests that if in fact a gender difference is affecting our results, it is likely to make the non-EA sample more liberal than the EA sample.

We also compared the EA sample and the non-EA sample to see if age differences affected the results, and found no significant differences between them in the proportions of age classes 19–30 years, 31–42 years, and 43 years and older (χ^2 = 4.73; df=2; p=0.094). Age is correlated with political views such that conservatism increases with age. We should consider this fact when making comparisons between the general public and the EA sample. Looking at the age distribution in our sample, we find that it is *not* necessarily saturated with young adults (roughly 40% are over the age of 30). Furthermore, age-specific comparisons (between EAs and the general public) reveal that our sample is considerably more liberal on social and economic issues no matter the age group comparison (www.gallup.com, www.pollingreport.com, accessed June 2009). We were also concerned that our sample may be dissimilar with regard to residency in states with right- vs. left-wing voting patterns. We found no significant differences between the EA and non-EA sample with regard to residency in Democrat-leaning and Republican-leaning states (χ^2 =2.37; df=1; p=0.124).

Discussion

The claim that evolutionary perspectives on human behavior are politically motivated and advanced to support conservative or reactionary policies is a troubling accusation. If true, it would seriously challenge the legitimacy of evolutionary anthropology; even if incorrect, it is likely to taint evolutionary approaches to behavior in the eyes of many. We tested the assumption that the evolutionary perspective is associated with right-wing conservative beliefs by comparing the political beliefs of EA graduate students with the general U.S. public as well as non-EA students regarding three key variables: political affiliation, candidate preference, and beliefs on various



social and political issues. The results clearly contradict the claim that EAs are socially or politically conservative.

EAs had very liberal opinions regarding the topics in our individual rights item cluster (Tables 1 and 2). We asked participants explicitly, "What best describes your position on social issues?" EA students responded in a strikingly liberal manner, even slightly more to the left than their non-EA colleagues (Table 1, item 1). In fact, 98% of EAs described their position on social issues as "liberal." A large majority of EA students (81%) felt that it should be legal for adults to grow, sell, and smoke marijuana. In 2008, the majority of Americans felt that marijuana should remain illegal, even for the possession of a small amount for personal use (http://www.pollingreport.com/drugs.htm), and the movement for the legalization and decriminalization of marijuana is characterized as a leftist agenda supported by liberals and libertarians. Most EA students (96%) also felt that the government should scrupulously maintain the separation of church and state.

The remaining two individual rights items in our survey approached issues that are a major part of the conservative political platform: gay marriages and abortion. EA students felt strongly that homosexuals and heterosexuals should share the same marriage rights, and they were significantly more liberal on this topic compared with the general public. In a 2009 USA Today/Gallup poll (accessed June 2009), more than half of those surveyed felt that marriages between same-sex couples should not be recognized by the law as valid, with the same rights as traditional marriages. In stark contrast, 98% of EA students felt that homosexuals should have the same marriage rights as heterosexuals. Regarding the topic of abortion, 92% of EA students felt that the U.S. government should play no role in deciding if or when a woman can terminate a pregnancy. A recent survey shows that 51% of Republicans (vs. 21% of Democrats) felt that the Supreme Court's decision to establish a constitutional right for women to obtain legal abortions in this country was a "bad thing" (http://www.pollingreport.com/abortion.htm, accessed July 2009). Overall, the conservative-liberal ratio of responses for EA students for the individual rights scale was severely lopsided, with only 8% (26/297) of the responses in this analysis being conservative.

It could be argued that the beliefs of EA students regarding individual rights are libertarian, rather than left-wing. Libertarians, similar to the Democratic left, strongly believe in individual rights (e.g., gay rights). But there is a real divergence between libertarians and traditional progressives on social and economic policy. Libertarians (as well as most Republicans) are opposed to various social welfare programs, including most forms of social support for the poor. We see in Table 2 that the political attitudes of EA students are not consistent with libertarian ideology. Specifically, 92% of EA students felt that the U.S. government should provide universal health care and were strongly supportive of welfare measures. Further, 86% EA students also felt that the minimum wage should be significantly increased, a position that is clearly not shared by libertarians (http://www.lp.org/, accessed July 2009).

Does the hypothesis that EAs are conservative have any validity for political attitudes regarding wealth distribution? Looking at the results in Table 2 it appears, at first glance, that on these issues, both EA and non-EA students are considerably more conservative than they are on political compassion and individual rights topics.



But a closer look shows that this is the result of a single item: "The federal government expends funds in a very inefficient way" (conservative). A striking number of EA and non-EA students agreed with this statement (Table 1). Following Tybur et al., we assumed that agreement with this statement would reflect a politically conservative mindset. We suspect the political climate at the time of our survey explains this discrepancy. The U.S. economy became increasingly unstable in 2008 and was arguably the most debated topic in the 2008 presidential race. The argument from the political left was that the failing economy was the result of mismanagement by the conservative administration of President Bush. Furthermore, a majority of the left did not favor the war in Iraq, which around the time of our survey was costing American taxpayers some \$12 billion per month. Given this context it is not surprising that our mostly liberal participants felt that the federal government expends funds inefficiently. After removing this item from our analysis we found that EA (and non-EA) student responses for the wealth distribution factor parallel the liberal viewpoints they expressed in the individual rights and political compassion factors. Regarding our other wealth distribution items, the beliefs of EA students similarly did not meet the expectations of the EAPC hypothesis. Most did not favor cutting the federal income tax, disapproved of a flat tax system, and were against privatizing social security.

Several other survey items further reject the EAPC hypothesis. When we asked participants explicitly, "What best describes your position on economic issues?" EA student responses were on average to the far left of the scale (Table 1). In regard to political affiliation, most EA students supported left-wing parties while only a handful supported right-wing ones (Fig. 1). EA students voted for the left-wing tickets at a considerably higher frequency and voted significantly less for the right-wing tickets than would be anticipated by the EAPC hypothesis (Fig. 2). A remarkable number of EA students supported Barack Obama in the 2008 U.S. presidential election. President Obama is generally liberal in his social and economic policies: he supports gay rights, abortion rights, universal health care, and curbs on greenhouse gasses. All of these policies should be unattractive to those who have conservative and/or reactionary beliefs. Here again, we see that the EAPC assumption fails to match the political allegiances of EA students.

Conclusions

Our survey of graduate students in anthropology provides considerable evidence against the claim that anthropologists who employ evolutionary perspectives to analyze behavior hold conservative or reactionary views. In almost every respect, the views of EA graduate students are extremely liberal in comparison with the U.S. public, and statistically indistinguishable from those of non-EA graduate students (Table 1, Fig. 1). In light of our results as well as those of Tybur and colleagues (2007), an important question emerges: Why are anthropologists and others who use evolutionary theory to analyze human behavior incorrectly stereotyped by many of their colleagues as conservatives who conduct research that is motivated by (or at least useful to) right-wing political beliefs? The answer is likely complex. The most vociferous attacks on sociobiology often came from academics with strong leftist



beliefs who felt that a researcher should always carefully scrutinize the sociopolitical sources and implications of scientific research. Some EA practitioners have been similarly criticized by those who conduct research that is motivated by their values and political beliefs, and these critics are not shy in making their political motivations explicit (e.g., Haraway 1989; McKinnon 2005; Marks 2000; Singer 1996). For these academics there can be no disassociation between social research and social activism. Thus, the very fact that the majority of EA research is not motivated by social justice likely stirs some suspicion.

Of course, it would not be necessary for a researcher to hold a certain political ideology in order for her research to be useful for others promoting that ideology. Thus, some critics may view evolutionary analyses of behavior as supporting conservative or reactionary politics regardless of the personal political views of those conducting such research. This charge is usually made in such vague language that it is difficult to know exactly how consciously imbued with right-wing views evolutionary social science is thought to be. Evolutionary anthropologists are charged with using "language that resonates with that of the conservative right" (McKinnon 2005:11), which leaves the question of political intent ambiguous. By contrast, others charge the field with being "ideologically right-wing through and through" (Knight 1991:8) and draw the battlelines quite dramatically: "Their allies are the political right and what H. L. Mencken used to call the booboisie. Our allies are history, scholarship, and science" (Marks 2000:3).

Perhaps equally important is the fact that many EA practitioners tackle topics, such as sex differences in reproductive and parenting behavior or the evolutionary roots of cooperation and conflict, which some feel challenge the assumptions of social rights movements. In our judgment, EAs tackle these issues not because they seek to advance a political agenda, but rather because they consider them important avenues to understanding human behavior. As Hagen (2005) argues (following David Hume), "an explanation is not a justification." Unfortunately, the research topics EAs explore (perhaps coupled with a belief in keeping political values separate from the evaluation of scientific research) set the stage for misinterpretation or outright epistemological conflict. Some have argued that the attacks on certain EA practitioners may be the result of over-sensitivity to the perceived political significance of social science research (Masters 1982; Pinker 2002) or a way for people to signal their liberal beliefs to their colleagues (Segerstrale 2000).

In any case, critics often attack evolutionary social science for arguing that evolved preferences or cognitive constraints limit the range or patterns of human behavior. According to McKinnon,

"evolved desires" reflect the remarkable conjuncture of Victorian sexual norms and neo-liberal economic values that has come to dominate the current political scene in the United States. By naturalizing these norms and values into the structures of the genes and the dynamics of deep evolutionary history, evolutionary psychologists produce what is, in effect, a set of moral prescriptions (McKinnon 2005:150).

The phrase "in effect" glides over the is/ought distinction, but then that distinction may not be considered valid by those who view any talk of evolved preferences or



constraints as necessarily giving aid and comfort to the enemy. Consider the following statement by two biologists, avowed enemies of evolutionary analyses of human behavior, from the foreword to an edited volume by biocultural anthropologists advocating a new (and decidedly non-evolutionary) "biocultural synthesis":

It is not possible to understand the ongoing struggles over the explanation of the nature of human beings without asking what work the explanations are supposed to do. . . . it is naive to suppose that the evolutionary question is what really motivates the struggle between biological and cultural determinism. The real issues are political: Could human life be other than it is? If so, are some social organizations more in accord with "human nature" than others? Is bourgeois society the final completion of a human historical trajectory, embodying the best that human biology allows? The confrontation between biological and social explanations and their various hybrids is, at bottom, a question of constraints and enablements. It should not surprise us that conservatives speak only of constraints while the liberals celebrate flexibility and the openness of possibilities (Levins and Lewontin 1998:xii).

The conflation here of debates about biological versus cultural determinism with teleological and ethnocentric views about historical trajectories is striking, and in our view extremely misleading if meant to apply to serious scholarship in evolutionary social science (as contrasted with the pop science books that are often the referenced targets of such attacks).

Our research was designed to assay the political views of EAs, rather than the political uses to which EA research has been or could be put. We are aware of a few instances in which EAs have drawn a link between evolutionary research and political or policy conclusions which one could reasonably term conservative or reactionary, but we also know of other instances in which the conclusions drawn have been politically progressive, and instances where conservative conclusions have been vigorously attacked by EAs. Promotion of feminist, progressive, and/or anti-racist positions by EAs is certainly not rare or absent (e.g., Frederick et al. 2009; Hrdy 1997; Peregrine et al. 2003). We also find it incongruous, and more than a bit ironic, for evolutionists to be attacked as supporting a conservative agenda at a time when conservative forces in the United States are engaged in trying to stamp out evolutionary biology (not to mention evolutionary anthropology) in the curricula of public schools. In any case, the charge that EA research is motivated by ideological bias calls such critics' veracity into question, whereas the charge that EA research could be or has been used by others to further ideological ends does not.

Whatever the reasons for the perception of evolutionary social science as politically conservative, our research, coupled with that of Tybur and colleagues (2007), repudiates such a claim.

Acknowledgments We thank William Irons for suggesting that we undertake this research. Wesley Allen-Arave, Bret Beheim, Lee Cronk, Edward Hagen, Raymond Hames, John R. Hibbing, Kim Hill, Jeremy Koster, Daniel Nettle, Benjamin Purzycki, Rob Quinlan, Joshua Tybur, and Bruce Winterhalder provided helpful comments on earlier drafts of this manuscript. Finally, we thank Alyssa Fitzpatrick Harlow, Samuel Kim, David Armo, and Alexandra Futran for their research assistance.



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