The Dual Foundations of Political Ideology Are Ubiquitous across Human Social Life

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Many people in Western countries represent the political landscape as a single dimension of conflict: authority, hierarchy, and tradition on the right versus greater freedom, equality, and systemic change on the left. Here, we argue that politics comprises not one but two primary dimensions. Moreover, these two dimensions are not unique to modern nations but reflect two evolutionary trade-offs that we call the "dual foundations" of politics and argue are inherent to human social life. One foundation concerns the trade-off between cooperation and competition and gives rise to contestation over levels of inequality and provision of public goods. The other foundation concerns the trade-off between autonomy and conformity, leading to contestation over the extent of social control. Drawing on anthropological, psychological, and historiographical evidence, we argue that these dual foundations are contested across the diversity of human lifeways and lead to two cross-culturally ubiquitous dimensions of ideology. As such, the dual foundations provide a common evolutionary framework for studying human politics across geography, history, subsistence styles, levels of social organization, and academic disciplines. We end by outlining how quantitative approaches to studying the dual foundations beyond industrialized nations can advance research on both the anthropology and psychology of political ideology.

Online enhancements: appendix.

All human politics is characterized by tensions and conflicts (Balandier 1970; Silverman and Salisbury 1977). Decades of anthropological research highlights the fundamentally contested nature of human social organization (Asad 1972; Barth 1959; Leach 1954). Indeed, many anthropological analyses interpret social structure as the result of people's active manipulations and negotiations, highlighting individuals' and communities' agency and intentions in shaping social structures (Blanton and Fargher 2008; Graeber and Wengrow 2021; Hayden 1995; Wiessner 2002). But this literature has had less to say about where these political intentions come from (Arkush 2012). The attention paid to agency raises questions ultimately psychological in nature: what ideas do people use in political decision-making, what is their structure, and how do they vary and change? To answer these questions, we need to understand the psychology of ideology and how it manifests in diverse societies around the world.

Psychological research on political ideology has undergone something of a renaissance over the past 25 years (Jost, Halperin, and Laurin 2020) but has had limited conversation with anthropological studies of politics across nonindustrialized, industrializing, and politically peripheral contexts. Despite its relevance for anthropological research, anthropology is currently removed from other disciplines' engagements with ideology (Haugbolle 2018:191). As a result, our understanding of the psychology of ideology draws largely from industrialized nations and overlooks anthropological research on the politics of nonstate societies. This separation has likely been reinforced by the prominence of the "left versus right" metaphor for describing political differences in industrialized nations (see Claessens et al. 2020) and a concomitant explanation of the origins of contemporary political differences in the changes brought about by modernization, industrialization, and liberal Enlightenment ideas (Baron 2020; compare Muhlberger and Paine 1993)—indeed, the terms "left" and "right" originate from the French legislative assembly, in which the revolutionaries sat on the left and supporters of the Ancien Régime sat on the right (Gauchet 1994). As Kemmelmeier et al. (2003) describe it:

> Historically, individualism is a product of the ideology of liberalism whose emphasis on civic liberties and freedom emerged in opposition to authoritarian oppression during the late 18th and 19th century. . . . The central idea of these and similar political movements was the recognition of individual self-determination, individual human rights, and the limitation of state control over the individual—ideas that form the philosophical cornerstone of today's civic democracies. As a consequence, the cultural ideology of individualism appears to be diametrically opposed to the notion of conformity to the group and subordination to authority. (305)

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Current Anthropology, volume 66, number 3, June 2025. Published by The University of Chicago Press for The Wenner-Gren Foundation for Anthropological Research. https://doi.org/10.1086/735619

The modernization narrative suggests that current political contestations between left and right are not to be found in more "traditional" societies, where people acquiesce to authorities and uphold prescribed roles, "define themselves as extensions of other people," and view themselves in harmony with others (Lee, Pratto, and Johnson 2011:1030; see also Daloz 2018:184–185). Rather, the structure of modern political contestation is seen as the product of modernization, which led to shifts in values, with inequities challenged by recognition of the fundamental equality of people (Hofstede 1980) and traditional authorities undermined by personal self-expression (Inglehart and Welzel 2005).

This explanation for the state of contemporary politics has been challenged by two important lines of research. First, researchers have found that a single left-right dimension cannot adequately capture contemporary political variation because people can and frequently do combine elements of both "left-wing" and "right-wing" attitudes (Aspelund, Lindeman, and Verkasalo 2013; Treier and Hillygus 2009). Instead, numerous researchers have independently converged on a two-dimensional model of politics (Claessens et al. 2020; Duckitt and Sibley 2010): the first dimension is represented by a suite of psychological scales such as Social Dominance Orientation (SDO), equality, and self-enhancement, while the second is represented by scales such as Right-Wing Authoritarianism (RWA), freedom, and conservation (supplementary table 1 [supplementary tables 1 and 2 are available online] lists various scales that represent the two dimensions). Moreover, these two dimensions are not just outcomes of a peculiar Western European political history—research indicates that they have relevance across various industrialized nations (Malka, Lelkes, and Soto 2019; Stankov 2017). Contemporary politics therefore has two dimensions to explain, not just one.

The second challenge is an emerging understanding that politics expresses evolutionary tensions produced by group living. If politics arises from basic problems of group living, at least some components of political life are not unique to humans (e.g., Bissonnette et al. 2015). Indeed, some primatologists have drawn attention to the political nature of chimpanzee and baboon societies (De Waal 1998; Strum and Latour 1987). Psychologists are also increasingly using evolutionary perspectives that explain human political psychology as a phenotypic reaction to the challenges of social life (Petersen 2015) that arises predictably across different times and places (Kessler and Cohrs 2008; Sheehy-Skeffington and Thomsen 2020). A range of researchers are thus interested in uncovering the evolutionary roots of contemporary politics.

The recently proposed dual foundations framework of political ideology addresses both of these challenges in a unified theoretical framework to describe and explain contemporary politics (Claessens et al. 2020). The dual foundations framework links the two ideological dimensions of contemporary politics to independent research in evolutionary anthropology that identifies two key trade-offs that emerged as human group living evolved to become increasingly interdependent (Aktipis et al. 2018)—the trade-off between competition and cooperation across social networks and the trade-off between autonomy and social control as human ancestors became more group minded, conforming to and enforcing social norms (Burkart, Brügger, and van Schaik 2018; Jensen, Vaish, and Schmidt 2014; Tomasello et al. 2012). Building on the work of Tomasello and others, which identifies these two challenges of social evolution as central to the emergence of humans' moral psychology, the dual foundations framework argues that they also form the foundations of political ideology.

What we shall here call the "inequality foundation" concerns the dilemma of cooperation versus competition: how to share the costs and benefits of working together. Any people who collaborate to gain a resource (material or otherwise; Smith et al. 2010) must make decisions about how to share the rewards. When collaboration benefits the common good, we call this cooperative (Dugatkin 1997:14). Competition occurs when collaboration benefits some at the expense of others (Johnson and Johnson 2015). Cooperation is linked to the contestation of inequality because cooperation in a group generally favors more egalitarian social relations within that group (Hooper, Kaplan, and Jaeggi 2021; Townsend 2018). More equal resource distributions mean that actors have more equal bargaining power when deciding the payoff structure of the next collaboration, leading to more even resource distribution in turn (Ostrom 1995). Since competition results in more uneven resource distributions, it favors inequalities (Mandalaywala 2019). When unchecked, unequal payoffs leave some actors more likely to gain further advantages in subsequent collaborations (Hickey and Davidsen 2019; Wilson and Codding 2020). Once influential actors emerge, they can manipulate social structures to favor greater inequality (Hayden and Villeneuve 2010). By shaping collaborative activities into more competitive forms, they accrue greater benefits, while lower-ranking collaborators get marginally less (Pandit, Pradhan, and van Schaik 2020; Powers, Schaik, and Lehmann 2021; Singh, Wrangham, and Glowacki 2017), leading to exploitation (Thielmann, Spadaro, and Balliet 2020). Nevertheless, lower-ranking actors may collaborate with higher-ranking actors for unequal payoffs if this brings greater or more certain rewards than an alternative (Henrich and Gil-White 2001; von Rueden, Gurven, and Kaplan 2008). Contestation in human groups, then, is not simply a product of the kind of Machiavelian self-interest and alliance formation characteristic of chimpanzee politics (De Waal 1998) but of people with different preferences for cooperation and equality and for competition and inequality.

The second foundation, which we call "social control," corresponds to the challenge of coordinating collective activities: whether to follow group norms and leadership and punish nonconformists. This is because collective action is notoriously difficult to maintain. It features "start-up" problems, issues of generating trust and confidence, changes in incentives as activities progress, and coordination issues (Bissonnette et al. 2015:30–32; Wiessner 2019). Given extensive collaboration with genetic nonrelatives (Cronk et al. 2019), people solve these issues by relying on

cultural markers to signal group membership and impose normative expectations (Bowser 2000; Padilla-Iglesias, Foley, and Shneidman 2020; Sterelny and Hiscock 2014). These norms enable collaboration by signaling commitment and reducing uncertainty in social behavior (Gintis 2010; Hawkins, Goodman, and Goldstone 2019). Leadership plays a similar role in collective action, also by decreasing uncertainty in social interaction (Smith et al. 2016; von Rueden et al. 2014). Both norms and leadership thus provide means of overcoming between-individual differences in incentives and establishing and maintaining collective activities (Pietraszewski 2020). Departing from normative expectations or disobeying leaders' authority can thereby be perceived as a threat to collective action and is often subject to sanctions (Garfield, Syme, and Hagen 2020; Ostrom 2000). Sanctions vary significantly cross-culturally, from gossip and withdrawal of social support to wholesale ostracism and institutionalized punishment (Eriksson et al. 2021; Wiessner 2020). Perception of inadequate social support or commitment can thus lead to preferences for tighter control of others through upholding norms, expanding leaders' authority, and more severely sanctioning deviance. Conversely, subjection to norms, authority, and punishment can reduce the ability to innovate autonomously and learn independently (Kendal et al. 2005; Rogers 1988), thus making anticonformism appealing (Whitehead and Richerson 2009). Contestation in human groups is thereby engendered between people with different preferences for conformity to traditional norms and authorities versus more autonomous decision-making.

The dual foundations account thus roots political ideology in two trade-offs. These trade-offs imply a mix of both advantages and disadvantages for relying on social strategies that are more cooperative or competitive or more procontrol or proautonomy. That no one strategy can always outcompete the others across different situations maintains between-individual variation in these strategies (Claessens et al. 2020). In a complex social world, the dual foundations framework expects individuals to adopt heuristic tools, such as context-general values, to make political decisions—a point we will explore further below when we discuss ethnographic evidence for political values. In addition, changes in the physical and social environment should favor plasticity, thus making perceptions of environmental conditions an important factor in explaining ideological differences (Nettle and Saxe 2020). The dual foundations framework therefore does not assume that individuals hold political views purely because they are in their immediate strategic self-interest. Rather, individuals' ideological positions are shaped by a range of factors other than immediate self-interest, including individual differences in context-general social preferences, perceptions of and sensitivity to environmental conditions, and longer-term reputational concerns (Sperber and Baumard 2012). The dual foundations framework thus grounds political ideology in trade-offs of group living without assuming that ideology reflects immediate self-interest.

The dual foundations framework both explains past findings and finds support for its own novel predictions. It explains why psychologists find two ideological dimensions and why these dimensions independently explain attitudes toward various policy and political issues (e.g., Osborne et al. 2021; Satherley, Sibley, and Osborne 2021; Thomsen, Green, and Sidanius 2008)—because the two dimensions correspond to two distinct trade-offs in human social life (see fig. 1). Furthermore, the dual foundations explain the well-established tripartite structure of contemporary authoritarianism—subordination to group norms, submission to leadership, and punishment of deviance (Duckitt et al. 2010)—each of which maps onto well-established means of overcoming collective action problems. In addition, the dual foundations framework finds support for its own predictions for relationships between political values and preferences in incentivized behavioral tasks. A link between inequality values and dilemmas of cooperation is supported by evidence that SDO is predicted by abstract preferences for fairness in incentivized behavioral tasks that model trade-offs between

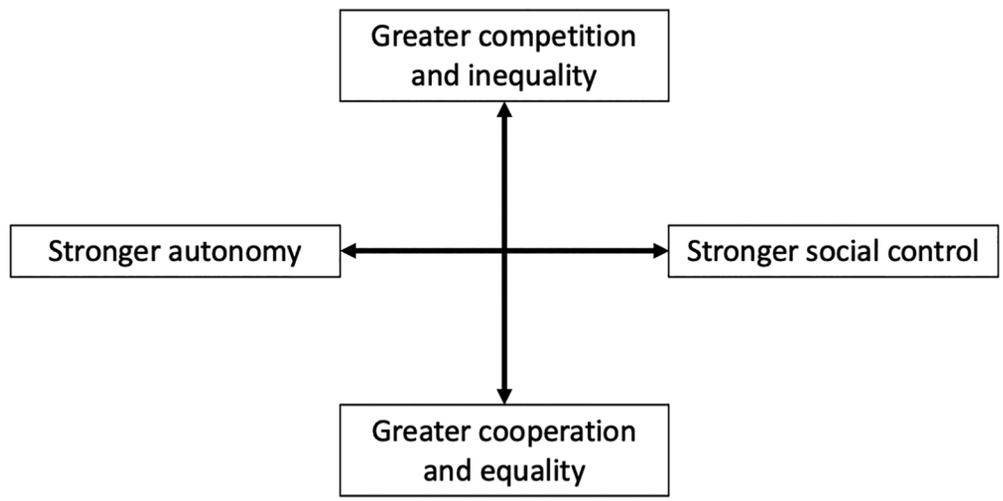

Figure 1. Illustration of the two-dimensional space of political ideology on the vertical and horizontal axes.

cooperation and competition, such as the dictator and public goods games (Claessens et al. 2023). Authoritarian values, meanwhile, are related to abstract incentivized measures of conformity, rule following, punishment, in-group bias, and distrust of strangers (Fischer, Atkinson, and Chaudhuri 2021). Ongoing research thus supports the aim of the dual foundations framework to connect the two dimensions of contemporary politics to basic preferences concerning trade-offs inherent to human social life.

While the dual foundations framework was created to describe and explain contemporary political ideology, if the dual foundations are inherent to human group living, they should be contested across a wide array of social groups. Social groups vary dramatically across geography and history. Even at a single place and time, people depend on a variety of groups that have overlapping memberships, are organized in nested structures, and exhibit fission-fusion dynamics (Bird et al. 2019; Hill et al. 2011; Sikora et al. 2017). Few individuals rely on all of the same groups, and only some groups will be active or relevant at a given time (Smaldino 2019), meaning that in-group–out-group boundaries are constructed and maintained across various levels of social organization (Hirschfeld 2018). Across all of these groups, within and across societies, decisions must be taken about fair distributions of resources and the optimum extent of social control. The two trade-offs should thus arise outside of industrialized nation-states: in human groups across geography and history and across various levels of social organization.

We here aim to go beyond psychological evidence from industrialized societies to explore whether the dual foundations of ideology are represented in ethnographic and historiographic records. We do this by evaluating five predictions about the nature of political contestation against cross-cultural evidence from anthropology and related disciplines. Although ethnographic records understandably provide limited information about ideology at the psychological level (discussed below), their attention to political contestation allows us to examine evidence that people everywhere grapple with trade-offs over inequality and social control.

1. The dual foundations are contested across human societies. If the dual foundations are not a unique product of Western political history but inherent to all human social life, they should be contested in all human social groups. While some cross-national psychological research has already been conducted on the two dimensions of political ideology, to our knowledge no attempt currently exists to extend this research to nonindustrialized societies. We therefore use the Probability Sample Files (PSF) of the Human Relations Area Files to show that the dual foundations are contested across a diverse sample of human societies. Furthermore, if the dual foundations are contested in all social groups, they should be contested even in contexts where one extreme of the political spectrum is dominant. We thus use additional ethnographic examples to show that even at the political extremes, people contest the extent of inequality and social control.

2. The dual foundations can exist in groups both large and small. If the dual foundations exist in all human groups, they should be contested across different levels of social organization, from polities to families. Psychological evidence indicates that the dual foundations structure individuals' preferences about both political and family values (Feinberg et al. 2020). We show, with ethnographic and historical examples, that the dual foundations are also contested across different levels of social organization in nonindustrialized societies.

3. The dual foundations can be combined in different ways across different contexts. If the dual foundations represent independent trade-offs, they should be combined differently in different places. Psychological research finds this to be the case across industrialized nations, and we provide evidence that ethnographic descriptions of political differences show the same patterns.

4. The dual foundations can be expressed differently relative to specific contexts. The dual foundations framework expects differences in how cooperation and inequality, and social control and autonomy, are contested across different contexts. While the dual foundations should always be contested, this contestation will look quite different in contexts characterized by different baseline levels of inequality and social control. We use ethnographic materials to demonstrate the context-sensitive ways the dual foundations are contested in different societies.

5. The dual foundations give rise to individual variation along two dimensions of political values. Psychological research indicates that the dual foundations lead to individual variation in values about inequality and social control. If the dual foundations are also present in nonindustrialized contexts, we should also expect to find individual variation in values about inequality and social control in these contexts. While we note limitations in using ethnographic evidence to understand individual-level variation, we are able to provide examples that offer support for this prediction even just within the PSF data.

In sum, we aim to show that the dual foundations of political ideology, well documented in industrialized nations, are also politically contested in nonindustrialized contexts. Moreover, these tensions seem commonly expressed as values. We argue, on this basis, that across nonindustrialized contexts too, the two dimensions of political ideology will likely provide a useful explanation for individuals' political attitudes and behaviors. We end by outlining ways to study the nature of political ideology across nonindustrialized, industrializing, and economically peripheral contexts.

The Dual Foundations Are Present across Human Societies

While many anthropologists have written about the widespread nature of political contestation, more explicit definitions of human universals emphasize the immutable rather than contestable aspects of inequality and social control. For example, Antweiler (2016:114–116) lists several such universals: all

societies show inequality in status, demonstrate pursuit of power, recognize some kind of social authority, impose sanctions on those stepping beyond accepted norms, and punish perceived group-damaging behavior. We suggest that this is half the story. In all societies, people contest the degree of inequality and social control, creating political tensions and conflicts.

Existing psychological evidence shows that across industrialized societies, disagreements over the degree of inequality and social control structure the political landscape. The SDO and RWA scales, for example, document between-individual variation in these values across countries with diverse political histories, including countries that are non-Western (Vargas-Salfate, Liu, and Gil de Zúñiga 2020), that have a history of communism (Duriez, Van Hiel, and Kossowska 2005), and that have nondemocratic institutions (Fischer, Hanke, and Sibley 2012). Furthermore, SDO and RWA explain variation in individuals' attitudes toward various political issues across these contexts. For example, SDO and RWA respectively predicted attitudes toward economic inequality and social traditionalism in both Belgium and postcommunist Poland (Duriez, Van Hiel, and Kossowska 2005). They also generally predicted anti-immigrant attitudes across 17 countries, SDO for reasons of economic advantage and RWA for fear of social instability (Cohrs and Stelzl 2010). SDO negatively predicted gender egalitarianism and aid for the poor across 20 countries (Pratto et al. 2013), negative opinions about poor people among high-status people in the Philippines (Bernardo 2013), and claims to engage in political violence in South Africa (Bartusevičius, van Leeuwen, and Petersen 2020). RWA, meanwhile, predicted religious fundamentalism and prejudice toward women and gay people in Ghana (Hunsberger, Owusu, and Duck 1999), national identification across 19 countries (Vargas-Salfate, Liu, and Gil de Zúñiga 2020), and even support for government-sanctioned multiculturalism in Singapore (Roets, Au, and Van Hiel 2015). Other measures of the two dimensions have also found cross-national support. The two central dimensions of Schwartz's value theory, self-enhancement versus self-transcendence and conservation versus openness to change, seem to reflect the inequality and social control dimensions and are stable across large samples from a diverse range of countries (Cieciuch et al. 2014; Schwartz et al. 2014). This evidence supports the argument that the two dimensions characterize political ideology in both Western and non-Western industrialized nations. Ideological differences reflecting the dual foundations' trade-offs may therefore be cross-culturally widespread.

To what extent, then, does the dual foundations framework apply across a larger variety of social systems? This question is an important one because human politics is remarkable in its variability: societies vary dramatically in the nature and extent of inequality and social control (Boehm 1999; Knauft 1991). We cannot rely on existing psychological research to answer this question, since it is limited to industrialized societies. Instead, we turn to ethnographic materials. The PSF of the electronic Human Relations Area Files (https://ehrafworldcultures.yale.edu/) is a dataset of ethnographic materials from 60 societies. It was created to provide a diverse sample of cross-societal variation and minimize issues of statistical nonindependence from spatial proximity and shared cultural ancestry (Lagacé 1979). Moreover, by surveying every society in this preassembled dataset, we prevent any possibility that we might have cherry-picked societies that support our predictions. While ethnographic databases have been used to show differences between societies in constructs related to the dual foundations, such as sharing of food and labor (Ember et al. 2018), modes of leadership (Garfield, Syme, and Hagen 2020), socialization for collectivism/obedience (Cashdan and Steele 2013), ethnocentrism and xenophobia (Cashdan 2001), and cultural "tightness" and prejudice (Jackson et al. 2019), our aim is different. We aim to test whether the dual foundations of politics are contested within each PSF society.

We examined the ethnographic materials to find at least one example of contestation of inequality and one example of contestation of social control in each of the 60 societies. Criteria for operationalizing this contestation are presented in the appendix (available online). In short, contestation can be attested to by ethnographic reports of practices being challenged by either criticism or alternative practices. This evidence should indicate the presence of either people's disagreement with contemporary practices of inequality/equality or social control/autonomy or arguments between different people who disagree about these practices. We searched the PSF's records for each of the 60 societies, using a combination of key word and subject queries to identify potentially relevant paragraphs (see examples in the appendix) that we then evaluated in light of the dual foundations' operationalizations. The final dataset contains examples from 60 societies, representing hunter-gatherers, horticulturalists, and pastoralists among others, and 130 published works by 129 ethnographers. This evidence indicates that in all PSF societies, people do contest both inequality and social control. The dataset, which includes our written evaluations of how each example relates to the dual foundations, is available in supplementary table 2.

It might be argued, though, that the PSF sample does not capture the most extreme examples of human political variability. We know that inequalities can be deeply entrenched, as when Roman senators killed Tiberius Gracchus for attempting to rally popular support for land redistribution (Mann 1986:256–257). Meanwhile, other inequalities are effectively suppressed, such as Trobriand Kiriwina chiefs being "challenged from below" with reduced yam tribute when people perceived them to be less than generous in providing benefits (Liep 1991:36–37). Similarly, the degree of social control varies significantly between different contexts. Batek De' foragers in Malaysia exercised their autonomy by moving between residential groups, and even children could refuse their parents (Endicott 1988:122, 2011:68; see also Hadza residential movement in Woodburn 1982). By contrast, lineage leaders of Somali pastoralists used violence to dissuade noncompliance; a common adage was "the man who breaks the customary rulings is the enemy of all" (Lewis 1961: 232–233). Do people contest the two dimensions even within the constraints of politically extreme institutions?

The dual foundations framework expects that people should. Even in severely unequal contexts, where inequalities might appear irresistibly entrenched, leveling movements should exist. Indeed, this was the case for the Roman Republic, which saw tax rebellions and targeted murder of tax collectors (Levi 1988:85), while the first well-known slave revolt was around 200,000 strong and overcome only after a four-year conflict (Mann 1986:256). Likewise, we find movements toward inequality in egalitarian settings: northern American Netsilik shamans sometimes attempted to use their positions for personal gain (Oosten 1986:73), for which they were sometimes killed (Balikci 1970; cited in Boehm 1999).

In contexts with tight social control, we find those willing to deviate. Centralized control in Egypt's Old Kingdom was in spite of local resentment and resistance to royal power, not because of its absence (Morris 2019), as seems true for other authoritarian projects, including Mayan Teotihuacan and the Mesopotamian city-states (McAnany 2019; Yoffee and Seri 2019). Finally, even where actors have considerable autonomy, movements exist that push toward greater social control. Yahgan people of Argentina were generally acephalous mobile foragers. Yet when a whale beached, some men took opportunity to marshal groups as big as 80, using coercion and violence to organize men's and women's daily activities (Lowie 1948). The two trade-offs thus lead to political contestation even when extremes of the dual foundations are dominant, supporting our claim that contestation over the dual foundations is inherent to human social life.

The Dual Foundations Can Exist in Groups Both Large and Small

The dual foundations should also be ubiquitous in a second respect, as trade-offs regarding resource distribution and conformity exist not only in large social groups but also in smaller groups, such as households (Jennings 2020). Some psychological research already supports this idea. Stellmacher and Petzel's (2005) group authoritarianism scale explicitly expects values about social control to be found across different levels of social organization. Across several German samples, factor analytic methods reveal a single dimension of social control for various groups: the nation, political parties, and a university department. Other researchers have investigated politics at even smaller scales by measuring authoritarianism in parenting values (Stenner 2005). Recent findings show that values about family relationships mirror political ideology's two-dimensional structure. Cooperative "nurturant" parenting values and controlling "strict" parenting values each cluster together across American, Austrian, German, and French samples and respectively correlate with SDO and RWA (Feinberg et al. 2020).

Supporting this psychological evidence from modern industrialized societies, contestation of the dual foundations can also be seen in descriptions of politics at different levels of social organization, from large polities to small-scale residential groups and villages and even individual households. At the larger scale, England's Great Rising of 1381 is an example of a broad pattern of conflict over inequalities in medieval Europe. Radical clergy rallied peasants and townspeople against a feudal system that was intensifying tributary payments, while their bloody repression indicates others' motives to uphold inequalities (Hilton and Ashton 1987). At the level of a residence group, contestation of inequality can be seen among Brazilian Akwe Xavante, when Chief Apewe manipulated the age-set system to put close kin into desirable positions (Maybury-Lewis 1967:193–194). Young men's progression through the system was controlled by elders, with some young men complaining that, for both food and manufactured goods, mature men "take everything" and "give nothing" (Maybury-Lewis 1967:157–158). Within families, women have frequently used claims of spiritual afflictions to leverage fairer treatment, as Lewis (2002:71–77) describes in rural Sri Lanka, Heian period Japan, and Uttar Pradesh as well as among West African Hausa and south Kenyan Swahili. Somalian Hubeer wives sometimes requested expensive treatment for afflictions of *sar* spirits, which affected women suffering the precarity caused by powerful and often absent husbands. Men often responded with violence and divorce threats, with women developing "a strong and explicit sense of sexual solidarity" in return (Lewis 2002:67–68).

Social control too can be contested across larger and smaller social levels. Religion was a vehicle for contestation of social control within the eighteenth-century Burmese empire. While clergy of the nine recognized Buddhist orders legitimized state control, charismatic and mystical forest monks subverted religious and political norms. Alaunghpaya of the Konbaung Dynasty mandated tattoos to mark the heterodoxy of those failing to pass the state-sponsored religious ordination ceremony, but contraventions, including animist syncretism, were reestablished wherever royal power was weakest (Scott 2009:299–300). Disagreements intermittently broke Ju/'hoansi San interfamily solidarity (Lee 1979:201), and in the past, order was sometimes restored by execution (Draper 1978:40; Lee 1979:392–395). As Ju/'hoansi settled in villages, some asserted moral control by verbally chastising individuals whose moral transgressions seemed to threaten community harmony (Wiessner 2005). At the family level, Lugbara referred to bad behavior as *ezata*, actions that "destroy the home," most commonly expressed in disobedience to husbands and senior kinsmen. When social control, in the form of supernatural threats, was no longer adequate to maintain the senior kinsman's authority, a family subcluster took the opportunity to leave (Middleton 1963:258–260). Across different societies, then, the dual foundations are contested at different levels of social organization, supporting the argument that the two trade-offs cause political tensions within all kinds of human groups.

The Dual Foundations Can Be Combined in Different Ways across Different Contexts

The dual foundations are conceptually independent, since each represents a separate trade-off. This contrasts with some previous anthropological work that combines examples of the contestation of inequality and social control into a single dimension (e.g., Boehm 1999; Gibson and Sillander 2011; Scott

2009). Independence does not mean that all political issues can be neatly sorted into one political foundation or the other. Most political issues likely do bear on both foundations by combining issues regarding both equality and social control. However, independence does mean that across societies, someone's opinion about one foundation should not invariantly predict their opinion about the other. Some existing psychological findings support this. While someone from Western Europe or the United States who favors inequality is likely to also favor social control (Nilsson and Jost 2020), this is not always the case. Some people combine the dimensions in different ways, like American libertarians who tend to accept social inequality but reject traditionalism (Iyer et al. 2012). In other countries, as in Eastern European postcommunist nations, the dominant pattern pairs proequality with pro–social control attitudes (Malka, Lelkes, and Soto 2019).

In line with these psychological findings, ethnographic and historiographic sources illustrate examples of every combination of the dual foundations.

1. Pro-inequality and pro–social control. Across the New Guinea Highlands, influential men used war to extend both the degree of social control and the extent of inequality (Hayden 1995:33–34). Because they would gain resources and prestige from settling peace negotiations, leaders would start conflicts themselves with feeble excuses, such as theft of a single sugar cane stalk, or even by paying individuals to commit murder to elicit retaliation. Yet leaders could not be seen to profit excessively. They therefore "feigned poverty" and tried to justify their aggrandizing through appeals to the common good. This led to them becoming both feared and respected. Chimbu leader Matoto was known as "a terrible man . . . half good, half bad" and "the one on whom all the rest lean" (Roscoe 2000:106).

2. Pro-inequality and anti–social control. Coast Salish elites defended inequality distributed across numerous independent households. These households were interdependent, especially in defense and warfare. But the coalitions they formed for these purposes were quickly disbanded, and autonomy was reasserted wherever possible. This resistance to centralization defended the autonomy of the household elites while not challenging the significant inequalities in status and resource control visible among Coast Salish groups (Angelbeck 2016; Angelbeck and Grier 2012).

3. Anti-inequality and pro–social control. Mobile hunter-gatherers frequently enforce norms that suppress inequalities. People closely observe the distribution of hunting spoils across the group and are quick to challenge those who break egalitarian norms by stingily refusing to share (Wiessner 1996). Some mobile hunter-gatherers also enforce relative gender egalitarianism through upholding established norms. BaYaka women, for instance, suppressed male aggrandizement by collectively embarrassing them with sexualized taunts (Finnegan 2013; Townsend 2015).

4. Anti-inequality and anti–social control. Maya peasantry's relationships with the elites were characterized by movements that pushed against both inequality and social control. Patron-client relationships were always intermittently broken by flight and armed revolt (Pohl and Pohl 1994:143). Guerrilla warfare was intended to prevent Maya leaders collecting tribute and confirming land titles. Later hacienda owners said that it took only a fishhook and a gun for peasants to cease work and withdraw from the unequal, controlling hacienda system (Scott 2009:206).

This lack of universal covariance between the dual foundations across different societies supports our claim that they arise because of independent trade-offs in group living.

The Dual Foundations Can Be Expressed Differently Relative to Specific Contexts

The dual foundations should be contested differently in different places, in part because different contexts have different baseline levels of inequality and social control concerning different issues. While we expect the dual foundations to be contested ubiquitously, this contestation will always be expressed relative to a baseline level of inequality and social control. Rather than the content of any given strain of ideology, therefore, it is the structure of the dual foundations' contestation that is invariant. This is something underacknowledged in psychological work, where scales designed for Western nations are often simply translated into different languages. RWA, for example, assigns "universal" political valences to issues that are specific to the Western context (Gray and Durrheim 2006).

In fact, even similar political strategies can be used in the service of opposing ideological ends. One example is individual feasting that, in nineteenth-century highland Myanmar and China, was supported by both Wa people and Pau Chin Hau's movement to oppose community feasting, which was being used to build inequalities (Scott 2009:212–213). By contrast, individual feasting to support equality might be alien to egalitarian hunter-gatherers. Mbendjele BaYaka women even refused to cook a man's game because of the feeling that he was building undue power by supplying too much meat, thus fostering unequal dependence (Lewis 2014).

Another example is religious reinvention, which has been used for both social control and deviation. The Chingichgnish religious reinvention staged by Gabrielino leaders following Spanish contact in present-day California extolled submission to traditional authority, individual self-sacrifice, and suppression of noncompliance with punishment and supernatural threat from spiritual "avengers" (Aldenderfer 1993:25). Meanwhile, as one English Civil War Royalist stated, "Heresy is always the fore-runner of rebellion" (Hill 1972:28). The 1650 Blasphemy Act targeted the Ranters, a religious sect whose denial of "the necessity of civil and moral righteousness among men" led "to the dissolution of all human society" (Hill 1972:166–167). Thus, while the dual foundations are ubiquitous, their manifestations are relative to particular historical contexts.

The Dual Foundations Give Rise to Individual Variation along the Two Dimensions of Values

The dual foundations framework argues that the two ubiquitous trade-offs mean individuals will differ in the extent to which they

support inequality and social control. As we note above, it expects that individuals will employ heuristics like context-general values about inequality and social control in making political decisions. By values, we mean ideas regarding collective goals and general principles of conduct, in contrast to personal goals, although the two are related in psychologically complex ways (Bergh and Sidanius 2021; D'Andrade 2008). It is values like these that are measured by psychological scales of political ideology. These scales measure values by asking respondents whether they agree with statements such as "an ideal society requires some groups to be on the top and others to be on the bottom" (Ho et al. 2015) and "our country will be great if we show respect for authority and obey our leaders" (Duckitt et al. 2010). These measures of between-individual differences in political values are relatively stable across time and causally precede changes in other behaviors (Osborne et al. 2021; Satherley, Sibley, and Osborne 2021). If the dual foundations lead to two dimensions of values in industrialized societies, and—as we have tried to show—the dual foundations are also contested across nonindustrialized societies, then we should expect the two value dimensions to exist in nonindustrialized societies too.

Yet the examples of political contestation we present above may fall short of providing direct evidence of values. An alternative interpretation of the ethnographic evidence could be that individuals behave according to self-interest, with behavioral differences merely arising because of differences in immediate political interests, thus removing the need to invoke psychological constructs like values. While perhaps attractive in its simplicity, this view contrasts with psychological evidence from industrialized contexts (Duckitt and Sibley 2010; Jost, Halperin, and Laurin 2020) and with the anthropological consensus that values are central to all human social life (see multiple entries in Fassin 2012). To explain the maintenance of egalitarian social systems, anthropologists invoke egalitarian values (Cashdan 1980; Woodburn 1982), and they employ antiegalitarian values to explain the maintenance of inequality (Haynes and Hickel 2016; Ku and Gibson 2019; Wiessner 2002). To explain more authoritarian versus libertarian social systems, meanwhile, anthropologists describe contrasting values of autonomy and control (Gardner 1991; Gibson and Sillander 2011). Ethnographic records therefore do not fail to provide evidence of values—in fact, anthropologists' accounts of values relate directly to our two dimensions of ideology. However, anthropologists tend to study values as group-level phenomena, limiting what can be said about the role that values play in individual-level variation.

It is difficult, therefore, to evaluate predictions about individuals' values because of, on the one hand, the dearth of psychological research in nonindustrialized societies and, on the other, the ethnographic record's lack of granularity at the level of differences between individuals (Boehm 1999:245–246). This is partly because ethnographic observation of politics is difficult. People are often constrained from acting on their values for fear of consequences (Bloch 1975; Scott 1990). Ethnographers' traditional agendas are also partly responsible. These analyses can reify individuals as examples of cultural types rather than viewing them as persons in their own right (Abu-Lughod 2006; Asad 1986).

Nevertheless, despite limitations, we are able to produce ethnographic evidence that political conflicts over inequality and social control are expressed through values. If we restrict ourselves to the PSF data used above, we find evidence for what seem to be values-based political differences in more than half of the societies—35 of 60. We describe the evidence for each case in our explanations of the PSF examples in the right-most column of supplementary table 2. We also describe how the occurrence of evidence for values does not seem related to the society's subsistence style. In the greatest number of cases, ethnographers explicitly refer to "a value" of egalitarianism or an "ethic" or "moral" of conformity, indicating that these are morally valenced concepts that individuals hold rather than descriptions of self-interested behavior. Other examples from the PSF data point toward the existence of values in how people are divided by opinion in ways that are unlikely to be attributed to self-interest. For example, while wealthy agriculturalist villagers in Korea embraced a stratified, lineage-oriented tradition and this was opposed by an egalitarian mutual aid–focused tradition mostly embraced by the poor, in contrast to what we might assume to be their self-interest, portions of the wealthy also embraced these more egalitarian practices (Brandt 1971:238). See also the example of attitudinal differences among Tukano men regarding punishment of adultery, which exist on a spectrum from corporal punishment to acceptance but where it seems that those with first-hand experience of adultery are not those that prefer the harshest punishments (Århem 1981:173–174). In a couple more examples, ethnographers describe how individuals seem to care about the values and value judgements of others. Hokkien people of Taiwan made value judgements of two village leaders, contrasting the generosity and "good-heartedness" of one with the "scheming" unfairness of the other (Harrell 1982). In one instance, an ethnographer attributes a quote to an individual that seems to imply values about fairness: "Who but an animal would steal meat from others?" (Turnbull 1962:106, writing of the Mbuti). If we expand our search beyond the PSF, we find even clearer statements of values from individuals, articulating both normative content and concern for collective ends. Regarding equality, a Ju/'hoansi healer named ≠Tomazho stated, "When a young man kills much meat, he comes to think of himself as a chief or a big man, and he thinks of the rest of us as his servants or inferiors. We can't accept this. We refuse one who boasts" (Lee 1979:246). And concerning autonomy, a BaYaka man called Mossina Dibaba said, "Never in life can you force someone to do something that is beyond his or her abilities, against his or her will, or contrary to his or her well-being" (Moïse 2014:89). This evidence, especially the widespread ethnographic description of values within a diverse cross-cultural sample, supports the dual foundations framework by showing that people across the world hold values about politics. To explore the structure of individual-level differences in values in greater detail, though, requires psychological analyses. In the next section, we argue that greater collaboration between anthropologists and psychologists will shed new light on the dual foundations of

political ideology and their manifestation across divergent modes of human group living.

Four Key Steps for Future Research

The evidence we have presented provides support for key predictions of the dual foundations framework: that two inherent trade-offs of human group living lead to the ubiquitous contestation of inequality and social control and form a common foundation to political ideologies in all human groups. We hope that this will provide a common framework for anthropologists and psychologists to build on by developing new ways of studying ideology across diverse cultural contexts. Here, we identify four key questions that will allow researchers to test the dual foundations framework and explore the structure, consequences, and causes of political ideology in diverse contexts around the world.

First, do attitudes toward contemporary political issues reflect the two-dimensional structure of the dual foundations framework? While the dual foundations framework predicts that political attitudes should be ideologically structured in a way that reflects the two independent trade-offs of group living, anthropologists have tended to either aggregate political struggles into a single dimension of "equality and freedom" versus "inequality and control" (Boehm 1999; Gibson and Sillander 2011; Scott 2009) or examine politics in a localized way to emphasize its many-sided complexities (e.g., Daloz 2018). To test the ubiquity of ideologically structured attitudes across cultures and political contexts requires the methods of political psychology. But uncovering the structure of political attitudes also provides opportunity for more anthropologically informed approaches to cross-cultural research (see Broesch et al. 2020). Opening this research to collaboration with community members will be vital in understanding what these issues of political contention are and how to record individuals' opinions (see Jogdand, Khan, and Mishra 2016), as well as building community trust and providing space for voices that have historically been marginalized from research practice (Dutra 2021; Urassa et al. 2021). Furthermore, it will enable researchers working with nonindustrialized, industrializing, and politically peripheral communities to employ psychological methods to understand responses to diverse contemporary issues, including global warming (Stanley and Wilson 2019) and public health (Fischer, Chaudhuri, and Atkinson 2023), among many others (e.g., Becker 2020; Lindén, Björklund, and Bäckström 2016; Reese, Proch, and Cohrs 2014).

Second, are individual differences in political attitudes underpinned by differences in political values? A key test of the dual foundations framework will be to operationalize its two trade-offs in the form of a psychometric scale that can then be used to explain why people hold different political attitudes. While existing scales of political values are limited by their design for use in industrialized, mostly Western nations, a new scale that operationalizes the trade-offs of the dual foundations framework could be both abstract enough to transcend the Western political context and concrete enough to pose actual political issues to respondents. It would thus allow questions about the structure of political ideology to be investigated cross-culturally: whether the abstract scale items capture the same two dimensions of political values already well studied in industrialized countries, whether they demonstrate the same two-dimensional structure across cultures, and whether they predict attitudinal differences across nonindustrialized, industrializing, and politically peripheral communities.

Third, are ideological values and policy views predicted by behavioral preferences for inequality and social control measured using incentivized behavioral tasks? As we note above, recent findings indicate that people who espouse social equality act more cooperatively in economic games, while people who espouse social control are more conformist in incentivized tasks (Claessens et al. 2023; Fischer, Atkinson, and Chaudhuri 2021). These findings come from Western nations, but incentivized tasks are readily adaptable to different sociocultural contexts and have several advantages. By giving individuals real incentivized choices that embody tensions between cooperation and competition and between social control and autonomy, they can directly model the trade-offs described by the dual foundations and thus get at the general social preferences that individuals have toward them. Given the limitations noted above in ethnographically observing between-individual variation in political values, like psychometric scales that measure ideology more abstractly, these behavioral tasks are a potentially valuable tool with which to study ideology in nonindustrialized, industrializing, and politically peripheral contexts (see Naar 2020; Pisor et al. 2020). As it stands, more research is needed into the relationship between behavior in incentivized tasks and other measures of ideology in such contexts.

Fourth, what factors explain variation in the two dimensions of ideology? Many potential sources of variation exist between both individuals and groups. One that has received attention in psychology is family values, which some identify as the origin of political values (Lakoff 2016). Supporting this, two dimensions of family values correlate with the two dimensions of politics among Western participants (Feinberg et al. 2020). Other scholars, though, question whether this relationship depends on a particular sociocultural context (Fried 1967:83; Pérez and Hetherington 2014), making it an interesting question to explore cross-culturally. Another potential source of variation is social mobility, since gaining social power may make people more favorable of inequality and social control (Liu, Huang, and McFedries 2008). At the group level, effects of market integration require careful study. Evidence indicates that market integration makes people more cooperative in anonymous economic games (Henrich et al. 2010; Stagnaro, Stibbard-Hawkes, and Apicella 2022), while others are skeptical that people from nonindustrialized societies have less cooperative values (Haagsma and Mouche 2013; Hruschka et al. 2014:575). Measures of the effect of market integration on the dual foundations of political ideology may help clarify the psychological mechanisms linking market integration with the cooperative preferences revealed in anonymous games. In particular, is market integration associated with greater acceptance of or aversion to inequality across cultures? Is it associated with the

social control dimension as well as the inequality dimension of ideology? Further sources of group-level variation could include the extent of social interdependence required by different subsistence practices, which affects people's reliance on social information (Glowacki and Molleman 2017), ability to perform rule switching (Legare et al. 2018), and espousal of collectivism (Dong, Talhelm, and Ren 2019; Talhelm et al. 2014), or historical experience under state bureaucracy, which may lead to reduced norm following and teaching of norm-following behavior to children (Lowes et al. 2017). Cross-cultural research would allow exploration of whether these group-level factors do indeed predict political values. Finally, there is little consensus concerning why pro-inequality and pro–social control views are coupled the way they are in Western countries, whether this relationship is exceptional, and what factors might predict an inverse relationship. Some argue that the cross-cultural evidence indicates a psychological affinity between authoritarianism and support for inequality (Nilsson and Jost 2020), and others argue that it indicates that the more common alignment is between social control and egalitarianism, which transforms into the left-right alignment with modernization (Malka, Lelkes, and Soto 2019). Resolving these questions will require research across a much broader range of communities using instruments appropriate for diverse cultural contexts.

Conclusion

We have argued that the dual foundations framework is a useful model of politics and ideology across industrialized and nonindustrialized contexts. In doing this, we have shown how gaps can be bridged between the study of politics in anthropology and psychology. A key barrier we have tried to eliminate is the idea that political ideology's two dimensions, as studied by psychologists, are themselves products of industrialization and modernization. The ethnographic and other evidence presented here challenge this account of ideology and indicate that it has deeper roots in human social life. Moreover, the dual foundations provide the theoretical framework that can bring together the study of political ideology across disciplines and societies. By anchoring the two dimensions of ideology in two trade-offs inherent to human group living, the dual foundations framework becomes relevant to politics across all human groups while recognizing diversity and flexibility in the cultural content of ideology. By ending with steps for further research, we encourage anthropologists and psychologists to collaborate to better understand politics and ideology. This will allow psychologists to test their theories across a wider plane of human variation, while anthropologists gain a person-centric and quantitative framework that provides insight into a big question in current theory: what is the structure of the values and attitudes central to political agency? Ultimately, questions about the intersection of the personal with the social, as posed by the study of politics, will be addressed only through interdisciplinary collaboration. We hope that the work presented here will provide a foundation for such collaboration.

Comments

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Long ago, Emile Durkheim (1951 [1897], 1993 [1893]) proposed two dimensions to institutional variation—social integration and social regulation. Respectively, these captured the extent to which people's behavior and practices are specified by strong (or weak) bonds of group membership, as well as by strong (or weak) imperatives from those with greater authority or power. Mary Douglas (1970) expanded these ideas, terming the axis of social integration "group" and that of social integration "grid." Starting with her book *Natural Symbols*, she explored various cross tabulations of these two dimensions into four cells—hierarchical (strong integration and regulation), individualistic (weak integration and regulation), isolate (weak integration but with strong external regulation), and enclaved (strong integration but with weak external regulation). The power of her subsequent work was to delve into the hybridity of these forms across not only the ethnographic record but also the institutions of the contemporary world. Development economists have made remarkable use of Douglas's insights regarding what have increasingly been termed the "bonding" and "binding" dimensions of social order. A good example can be found in the work of Bulte, Richards, and Voors (2018), who beautifully depict the coexistence and conflict between all four types of political organizing principles across different entities in contemporary Sierra Leone and the implications of this for the design of development interventions. Other social scientists seem to have converged, apparently independently, on almost identical 2 × 2 grids of "integration" and "linkage" (Woolcock 1998). These are deep, old ideas in social thought.

With this background I was somewhat underwhelmed by the target article. Binding elides very closely with regulation, and bonding elides with competition, cooperation, and inequality. But overlooking important historical literature is inevitably something we all do, given the vast literatures that bear on anthropology, so let me turn to what there is to like (and dislike) in this paper. My only dislike concerns its scientific design. Much as the authors make a remarkable use of the Probability Sample Files and produce an extremely useful compilation of focused observations in the enormous supplementary table 2, I really wonder what would have counted as contradictory evidence to their claims. Would we really have expected ethnographic accounts to make no reference to tensions over wealth inequalities, to rules (broken and followed) by different constituents of society, to semiautonomous operators being brought back into line, and so on? All of this is, as the authors acknowledge, exacerbated by the fact that ethnographers are typically from Western nations and hence likely to describe what they see within their own political ideological terms. In short, how could their thesis (which I do find plausible) have reasonably been rejected?

But there is also a lot to like in this paper. The most fruitful observation is, I think, to highlight the orthogonal nature of these two conceptually independent axes. As the authors rightly stress, this contrasts with previous anthropological work, and indeed much contemporary thinking, that combines contestation of inequality and social control into a single dimension. Effectively, the authors are here opening up each of the four cells in Douglas's formulation for separate scrutiny, just as both Woolcock (1998) and Bulte, Richards, and Voors (2018) did. This parsing out of independent axes, while not exactly novel, combined with the exciting challenge the authors set themselves—to operationalize the regulation/autonomy and competition/cooperation axes into a psychometric scale that can be used to examine how people navigate the trade-offs in holding their own political attitudes—promises an exciting and highly productive future avenue for research.

Comments

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Limited Cross-Cultural Methods Undermine Claims of Universal "Dual Foundations" in Political Ideology

Lavender Forsyth, Chaudhuri, and Atkinson claim that trade-offs between cooperation and competition and between autonomy and control linked to political ideologies are inherent to group living and ubiquitous across human societies. Political ideology has long been recognized as a fundamental feature of human sociality and has been thoroughly examined across philosophy, the humanities, and social sciences (Mulgan 1974; Tiger and Fox 1971). Historically, efforts to characterize universal aspects of a "human nature" of political ideology have been hindered by armchair theorizing, speculative models, and insufficient empirical support (Morrison 2006). Drawing on ethnography and fieldwork in nonindustrial societies, early political anthropologists were among the first to move beyond philosophical speculation toward empirical inquiry, offering nuanced perspectives on the variability and complexity of human political ideologies (Cohen and Middleton 1967; Fortes and Evans-Pritchard 1955).

Lavender Forsyth, Chaudhuri, and Atkinson's article embodies the spirit of political anthropologists and aims to bridge contemporary disciplinary gaps in the social science of political ideology. Building on prior work (Claessens et al. 2020), they propose that the "dual foundations" model of political ideology—focusing on cooperation versus competition and autonomy versus conformity—applies universally across human societies. While this model offers a promising framework for exploring political ideology across cultural and social diversity, the authors' ethnographic evidence and comparative methods lack the systematicity and analytical framework required to substantiate such broad claims. Although their conceptual theory and interdisciplinary literature review, particularly incorporating ethnography, represent an important contribution, their assertions are unconvincing because of methodological limitations. My critique will address some of these shortcomings.

First, the methods lack systematicity in using the electronic Human Relations Area Files (eHRAF). In the appendix, we are told that they "employed a range of key word and subject queries to identify potentially relevant paragraphs" and are given "some examples of the queries . . . used," including a list of words and three subject queries. This is insufficient to replicate their data collection and does not clearly define their sample, suggesting a haphazard strategy. Regarding data collection, they "examined the ethnographic materials to find at least one example of contestation of inequality and one example of contestation of social control in each of the 60 societies." Collecting evidence on a presence-absence basis at the societal level is a reasonable methodology (which I have used). However, it is best coupled with more fine-grained approaches; on its own, it fails to leverage the full utility of the eHRAF database. A key strength of eHRAF is its ability to systematically search the ethnographic record across thousands of documents and incorporate diverse ethnographic accounts into an analytical framework, which provides some safeguard against biases in the ethnographic record and of any single ethnographer. There are well-known cases of contradictory accounts by ethnographers working in the same or similar communities, such as leadership among the Nambiquara (Levi-Strauss 1945; Price 1981), sociosexual development in Samoa (i.e., the Mead-Freeman controversy; Shankman 1996, 2009), and the role of generosity among the Ik (Townsend et al. 2020; Turnbull 1987). These examples underscore the importance of relying on a broad sample of ethnographic evidence designed to capture both within- and between-society diversity and incorporating it into an analytical framework when drawing inference using comparative ethnographic methods. Collecting, relying on, and reporting singular accounts of evidence at the societal level also face challenges related to signal detection theory. We cannot evaluate the reported "hits" in relation to the total trials or misses. In their supplementary table 2, the authors provide a measure of "paragraph count," but it is unclear what this refers to; is it the total paragraphs returned for all eHRAF searches or the total number of paragraphs reviewed? Presumably, if the methods were simply looking for one piece of supporting evidence for each "contestation," I suspect all paragraphs were not coded after the target information was acquired. This process, however, is not explained. When methods and coding schemes in comparative ethnographic studies lack clarity and rigor, they risk distorting the ethnographic record, leading to potentially misleading interpretations, as illustrated by recent critiques of the "Man the Hunter" narrative (on women's hunting, see Venkataraman et al. 2024).

Concerning variable operationalizations, there are four distinct operational conditions for each of the inequality and social

control foundations. This coding approach presupposes that the dual foundations structure will emerge from the ethnographic data. The authors carry assumptions from the model—developed largely from WEIRD (Western, educated, industrialized, rich, and democratic) samples—into their analysis rather than allowing the ethnographic data to reveal alternative, potentially unknown structures. How can we be sure the dual foundations model best fits the ethnographic data? A more rigorous approach would be to code independently for evidence supporting, contradicting, or lacking for each of these eight operationalized variables (and perhaps others), allowing the data to either support a dual foundations model or suggest an alternative structure. Even more convincing would be to test and compare alternative theories to evaluate how well the dual foundations framework fits patterns in the ethnographic record against other competing models (see examples in Garfield, Hubbard, and Hagen 2019; Syme, Garfield, and Hagen 2015). My colleagues and I have used hierarchical cluster analysis, principal components analysis, minimum spanning trees, and nonnegative matrix factorization for similar purposes in analyzing ethnographic data, which have often produced insights that might have remained obscured had we relied only on singular theories developed using evidence from postindustrialized contexts (see Garfield, Syme, and Hagen 2020; Garfield et al. 2021; Lightner, Garfield, and Hagen 2022; Syme, Garfield, and Hagen 2015).

I was intrigued by the authors' goal to "test whether the dual foundations of politics are contested within" societies, particularly as social context is often overlooked in discussions of sociopolitical dynamics (e.g., Johns 2024). However, I did not see this approach or test in their analyses, or I misinterpreted their intentions. In some of my past work using comparative ethnographic data, for example, by coding for the group context in which leadership emerged, we could disentangle context dependency from potential universals in leadership dimensions across societies (Garfield, Syme, and Hagen 2020). Another important feature of social context concerns gender. Across cultures and contexts, gender dynamics are highly variable, yet in nonindustrial societies, much of social life is gender segregated (Garfield, von Rueden, and Hagen 2019; Pasternak, Ember, and Ember 1997). In a field study among rural pastoralists focused on interpersonal conflicts—a component of the "inequality foundation"—we found that gender dynamics and the context of social conflicts interact (Garfield and Glowacki 2023). Failing to code for or incorporate the various social contexts and gender dynamics, which are fundamental drivers of sociopolitical behavior, is another shortcoming of the authors' methodological approach.

I agree with the authors that the dual foundations model offers a useful starting point for integrating diverse disciplinary approaches to political ideology. I also find the hypothesis that trade-offs between cooperation and competition and between autonomy and conformity underlie much of human sociopolitical dynamics valid and worth testing. However, I do not believe that the authors have provided a sufficiently robust test of this model or hypothesis or fully leveraged the power of comparative ethnographic methods, a hallmark of contemporary anthropology.

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Beyond Universalism: Ideology Is Shaped by Institutions, History, and Context

Lavender Forsyth, Chaudhuri, and Atkinson's article argues that political ideology stems from two fundamental conflicts of group living: cooperation versus competition and the challenge of social coordination and control. However, in creating a universal definition of political ideology, several key variables that form and change individual-level political ideology are overlooked.

For one, this paper does not directly address the role of the state, as several ideological debates do. That is, this paper does not engage much with the network of public figures (e.g., public intellectuals, group/elected leaders, the media), the state, and other formal and informal institutions that often shape the underlying attitudes and behaviors of the group members. Research across fields has shown that institutionalized norms can often shape public opinion and reinforce social order (e.g., Berinsky 2007; Clark et al. 2024; Converse 2000; Tankard and Paluck 2017). For example, many of the ideological debates in the formation of a modern nation-state might debate the extents to which states should have a say in economic and social development of its constituents, at both the elite level (Chhibber and Verma 2018) and in mass opinion (Haas and Majumdar 2023; Puthillam, Kapoor, and Karandikar 2021).

Individual political ideologies also do not emerge in isolation; they emerge within specific historical contexts and are influenced by transformative events (also see Giuliano and Spilimbergo, forthcoming). Economic and social shocks, such as wars and pandemics, might influence individual preferences for, for example, redistribution and group identity (Besley and Reynal-Querol 2014). The relationship between ideology and such shocks might similarly both shape and be shaped by elite opinion and state responses. In other words, even though the contents of political ideology may stem from conflicts about group behaviors, ideology is shaped by formal and informal institutions, historical transformative events and shocks, and opposing ideas.

In addition, the argument the authors make about not having individual differences data from nonindustrialized societies is similar to a number of arguments that are being made about testing and generating theories from the Global South (Adetula et al. 2022; Uskul et al. 2024). For example, we have argued before that theories (including theories about political ideology) may not replicate to the Global South (Puthillam et al. 2023). In fact, in addition to the issues the authors raise about "scales designed for Western nations are often simply translated into different languages," it is also important to acknowledge how theories and scales designed for Western nations may actively harm communities in the Global South. For example, if scales are not invariant in measured populations in the Global South, the interpretation may often inadvertently reinforce essentialist stereotypes

that the cultures are "different" from the perceived norm in the Global North. This could also have wide-ranging and harmful implications, such as the reinforcement of harmful narratives about the "deviant" groups or cultures in the Global South.

An additional issue with conflating political ideology with problems of group living lies in the proposed measurement of political ideology. The authors specifically argue that devising "a new scale that operationalizes the trade-offs of the dual foundations framework could be both abstract enough to transcend the Western political context and concrete enough to pose actual political issues to respondents." A universal scale to measure political ideology cannot be both abstract enough and concrete enough. If it is, it might not tell us much about how participants think about all of the political issues that are important to them. An individual's political belief systems are usually in response to the contexts and ideological histories of the countries (which might involve intergroup living). Take, for instance, political issues such as abortion, corruption, and caste-based reservations. These *could* be distilled as social control and resource distribution, but *should* they? Doing so would strip away the important social contexts of the groups for whom these issues are important—a problem that has continually plagued psychology (e.g., Henrich, Heine, and Norenzayan 2010; Puthillam 2023; Thalmayer, Toscanelli, and Arnett 2021). It is also difficult to divorce from such issues the roles of informational networks and historical events. In other words, ideology often is too context and issue driven, as the authors no doubt agree, to be measured in universal ways. Universal explanations of social events, including political ideology often are but should not be ahistorical. Ahistorical analyses often promote and reinforce existing biases and power dynamics in the larger communities that are being studied without investigating what shaped the communities in question.

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Science Advances by Addressing, Extending, or Doing Better than Existing Theory

We commend Lavender Forsyth, Chaudhuri, and Atkinson for compiling a wealth of ethnographic examples of negotiating inequality and social control across human groups, which is valuable for an overdue conversation between anthropologists and political psychologists on how individual differences in core ideological values are grounded in fundamental evolutionary trade-offs relevant to all group living, not just the contemporary politics of Western industrialized nations. Yet we remain unconvinced that the authors offer substantive new theory.

Reviewing the ethnographic record a quarter century ago, Jim Sidanius and Felicia Pratto (1999) observed that inequality between social groups is a ubiquitous feature of all human societies that have surplus, monopolizable economic resources (for a substantiating review of recent archaeological evidence, see Ho et al. 2025) and formulated the at-the-time provocative notion that ideology has evolutionary roots grounded in adaptive trade-offs. They proposed that while inequality between socially constructed groups plays out along different lines in different settings (e.g., race, religion, or caste, all differing in their inequality dynamic to biologically grounded age and gender groups), the fact of group-based hierarchy remains. This universal structural form also varies in the degree of inequality between groups, driven by contesting forces at the individual, ideological, and institutional levels that enhance versus attenuate the social hierarchy (Sidanius and Pratto 1999). Remarkably, this theory is completely absent in Lavender Forsyth, Chaudhuri, and Atkinson's writing.

Space constraints preclude us from fully articulating the tenets of the rich, integrated, multileveled theoretical framework of social dominance theory (Ho et al. 2025; Pratto et al. 2006; Sidanius and Pratto 1999; Sidanius et al. 2004, 2017) and discussing Lavender Forsyth, Chaudhuri, and Atkinson's conceptualization of social control. Here, we focus on the psychological trait posited by Jim Sidanius 30 years ago, which, aside from spawning a prolific research subfield (involving nearly 27,000 published scholarly articles at the time of writing), also forms a basis of the dual process account of ideology (Duckitt 2001; Duckitt and Sibley 2010) on which the dual foundations framework rests: Social Dominance Orientation (SDO; Pratto et al. 1994; Sidanius 1993).

SDO indexes contestation about the merits of intergroup inequality versus equality in the abstract, forming a stable individual value trait with genetic roots but still calibrating to the dynamics and structures of power and resource distribution in any particular context. Research has long documented that SDO exhibits the characteristics presented by Lavender Forsyth, Chaudhuri, and Atkinson's article as novel propositions: its systematic variation (1) is observed across human societies with a monopolizable economic surplus (Fischer, Hanke, and Sibley 2012; Kunst et al. 2017; Lee, Pratto, and Johnson 2011); (2) applies to groups of varying sizes, from minimal laboratory groups to institutions, nation-states, and the world at large (Guimond et al. 2003; Ho et al. 2012; Levin et al. 2003); (3) interacts with other core ideological orientations, such as authoritarianism, in different ways in different settings (e.g., Thomsen, Green, and Sidanius 2008); (4) predicts different social policies and social arrangements in different settings (Sheehy-Skeffington and Thomsen 2020); and

1. Both authors contributed equally to this work.

(5) is observed across individuals in a manner distinguishable from self-interest (Kteily, Ho, and Sidanius 2012). As these five characteristics have been demonstrated for Right-Wing Authoritarianism too (for review, see, e.g., Osborne et al. 2023), it is unclear what new is offered by the specific set of predictions attributed to the dual foundations framework.

Where the proposed account does seem to differ from extant theories is that the authors draw (without proper justification) a seeming equivalence between egalitarian and cooperative motives, referring to circumstances where the two may coincide that are bounded and context specific (such as that in Hooper et al. 2021). But one may endorse need-based cooperation, for instance, while upholding societal inequality (e.g., charity) or endorse strict equality of opportunity when beginning a competition. Without a clear understanding of which adaptive problem is being addressed, whether the question of cooperation as generosity (vs. defection as selfishness, as in Claessens et al. 2020), cooperation as interdependence (vs. competition as zero-sum relations; Lavender Forsyth, Chaudhuri, and Atkinson), or actual egalitarianism (vs. support for inequality; Lavender Forsyth, Chaudhuri, and Atkinson), when discussing the ethnographic evidence, it is difficult to appraise the validity of any proposed evolutionary account.

Furthermore, what is missing from the proposed framework is careful theoretical analysis and empirical review of the actual role of adaptive constraints in forming and responding to political ideology and cultural institutions, precisely what decades of work in social dominance theory offers. This includes how such constraints intersect with the dynamics of coalitional competition (Sidanius and Kurzban 2013); the degree to which interindividual variation in inequality orientation exhibits both rank-order stability and contextual calibration (Sheehy-Skeffington and Thomsen 2020); the socialization versus genetic grounding of stable individual differences in ideology and an account of selective pressures yielding heritability (Kleppestø, Eftedal, and Thomsen 2021; Kleppestø et al. 2019); the ideological effects of gendered adaption pressures (Navarrete et al. 2010; Sidanius et al. 2018); how individuals with different values for inequality self-sort and are retained, rewarded, and socialized by different cultural institutions depending on their hierarchy-regulating societal function (Haley and Sidanius 2005); the manner in which hierarchy-regulating consensual ideology functions to sustain (vs. attenuate) both social inequality and control (Levin et al. 1998); and how hierarchy-regulating motives form social cognition—for example, how we perceive social structure (Kteily, Sheehy-Skeffington, and Ho 2017; Waldfogel et al. 2021), others (Ho, Kteily, and Chen 2020), our own conditions (Thomsen et al. 2010), moral justice (Eftedal et al. 2022), and freedom of speech (Eftedal and Thomsen 2021)—to ideologically legitimize furthering (in)equality.

Understanding how the adaptive trade-offs inherent in group living form ideology across and in response to socioecological context is a critical challenge, which can be valuably addressed with ethnographic work. This offers rich insights into how motives for inequality and control, and the ideological legitimation of such arrangements, play out in small-scale societies, to complement related scholarship in industrialized ones. In embarking on such costly empirical examination, we hope that anthropologists will consider the current political psychological state of the art, building and qualifying our collective scientific understanding of the intricate functional relations between human biology, mind, and society.

Acknowledgments

Funding was provided by the European Research Council (ERC 101040978 COORDINATE), the Norwegian Research Council (ES714119 DISTRIBUTE), and the Danish National Research Foundation (DGF-144).

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Ideological Attitude Dimensions: A Promising Topic for Psychoanthropological Collaboration?

Lavender Forsyth, Chaudhuri, and Atkinson argue that two ideological attitude dimensions underlie political and social life: (1) autonomy versus conformity, which relates to a preference for more or less social control, and (2) cooperation versus competition, which relates to a preference for (in)equality. Substantial psychological research indeed shows that both dimensions are involved in how people want society to be organized and how different societal groups should be treated (Duckitt 2001; Roets, Van Hiel, and Cornelis 2006). Evolutionary accounts have been developed for both dimensions (Gintis et al. 2003; Kessler and Cohrs 2008), and evidence has revealed a genetic component (Kandler, Bell, and Riemann 2016; Kleppestø et al. 2019).

There is much to like about this article. It has a solid empirical and theoretical basis that is tested in no fewer than 60 traditional communities. In addition, the authors make an appealing plea to combine the research efforts of anthropologists and psychologists.

The Meaning of Autonomy

As a first concern, however, I note that despite evidence favoring the two attitude dimensions, I feel skeptical about applying this essentially Western framework in non-Western communities. Such skepticism is warranted because Western scientific psychology employs concepts that its practitioners take for granted but that may lack equivalents in non-Western cultures. Western psychological concepts such as "intelligence," "motivation," and "personality" can be foreign to many non-Western people, just

as Westerners may find the frameworks of other cultures foreign (Danziger 1997).

The extrapolation of psychological theorizing to non-Western contexts reminds me of a debate in personality psychology. As is the case with ideological attitudes, there are personality frameworks considered to be valid (Goldberg 1993), and their evolutionary and genetic basis is well established (Bouchard and Loehlin 2001). Yet scholars have continued to evaluate the cross-cultural validity of the dimensional structure of personality descriptive adjectives (Cheung, van de Vijver, and Leong 2011). Cross-cultural particularities may be perceived as disruptive to the universalistic ambitions of such scientific frameworks while simultaneously testifying to the richness of human existence.

The question I ask, therefore, is whether "autonomy"—as a case in point—has similar meanings in all societies? Is the nomological network of autonomy and the other concepts (conformity, cooperation, and competition) universal? Autonomy in the form of nascent individuality was a mere European invention that emerged only during the seventeenth century (Seigel 2005; Taylor 1989). Until then, conformity was obvious, and the quest for autonomy was almost nonexistent, with a few exceptions in the (religious) elite (Sawday 1997). Later on, during Romanticism, autonomy was interpreted, at least in Western cultures, in tandem with authenticity as an inextricable pairing (Lukes 1985). To this day, the meaning of autonomy continues to develop and change significantly (Furedi 2019).

This brief history in the Western cultural context clarifies that "autonomy" has multiple historical forms of expression as well as very distinct nomological networks. Moreover, it might reasonably be expected that even greater differences in meaning are present (not only for autonomy but also for conformity, cooperation, and competition) among cultures than within cultures over time (Danziger 1997).

The key question, therefore, is whether autonomy versus conformity emerges as a meaningful polarity in all communities that Lavender Forsyth, Chaudhuri, and Atkinson studied. To address this query, I used the authors' search terms associated with autonomy versus social conformity on the text extracts of their supplementary table 2. Autonomy words were rarely used in the extracts (i.e., the search terms "autonom*," "free*," and "rebel*" yielded hits in 11 communities) compared with conformity words (i.e., the search terms "hierarch*," "punish*," "coerc*," "authorit*," "sanction," "norm," and "repress*" yielded hits in 41 communities). Both autonomy and conformity words were present in only 6 of the 60 studied communities.

On the basis of this small test, which ideally should be performed on the full texts rather than on the provided extracts, the impression is that the assumed polarity is absent in most of the studied communities. At least, such polarity does often not materialize in language (used by the authors to identify the presence of the dimensions in the first place). If so, it may be premature to impose on such communities a framework that builds on assumed polarities. I recommend instead studying the specific spectrum of ideological attitude dimensions in each community separately and then checking whether these dimensions fit with those from the Western tradition.

Dynamic Interplay between the Dimensions

I have a second concern as well. The authors describe four potential combinations of cooperation/competition (i.e., pro/con equality) and autonomy/conformity (i.e., pro/con social control). I certainly agree with their idea that these potential combinations may be present. Yet the story of this interplay also has a more dynamic side. History has made it painfully clear that one dimension can restrict the variation in the other.

Advocates of freedom have been accused of not paying sufficient attention to the living conditions of ordinary people. In response, demand for income equality has often materialized at the expense of freedom, sometimes leading to harsh dictatorships. Robespierre offers a significant Western example (Israel 2015), along with communist societies that arose during the twentieth century. Such regimes require absolute obedience, as such strongly constraining the variation in autonomy versus conformity.

Communities have a narrative about their origin and why things are what they are, with possible indications of dynamic connections between the two dimensions. This issue certainly merits further scholarly attention.

Conclusions

At least two conclusions are possible. First, in a perfect world, anthropologists would build a dimensional framework of ideological attitudes in each culture separately and search for cross-cultural similarities only in a second phase. The present article offers a first step in laying the foundations of how such a framework could look, but much work remains. Second, anthropology can surely advance by using psychological models, and one can only hope that such transdisciplinary openness will be reciprocated by psychologists as well. To end with a warning, however, I must add that no matter how fruitful psychoanthropological collaborations may be, anthropologists should remain critical about the allegedly universal claims of psychological models.

Reply

We are grateful to *Current Anthropology* for providing a venue for initiating this discussion and to our commentators, whose diverse range of viewpoints and expertise offer valuable feedback for us to consider in advancing an interdisciplinary science of human politics and ideology. Below, we respond to the commentaries both to defend our work where appropriate and to identify key

lessons for how to move forward in applying and testing the dual foundations framework in the future.

Borgerhoff Mulder articulates a critical concern, which is whether a society without political contestation of inequality and social control could reasonably be imagined and therefore whether searching for such contestation is a falsifiable test of the dual foundations framework. While we agree that this is an important question, we need only look to some other commentators' skepticism to see that the cross-cultural ubiquity of political contestation of inequality and social control is not self-evident. Providing evidence to support this claim is therefore a worthwhile and nontrivial goal.

Van Hiel illustrates this skepticism when he claims, "Autonomy in the form of nascent individuality was a mere European invention that emerged only during the seventeenth century. . . . Until then, conformity was obvious, and the quest for autonomy was almost nonexistent." He therefore cautions us to "remain critical about the allegedly universal claims of psychological models." While skepticism is healthy, it cuts both ways, and if we are to avoid becoming dogmatic, then we must remain open to testing universal claims. Van Hiel notes that of the examples from the Probability Sample Files (PSF) that support the social control dimension's cross-cultural ubiquity, in only six cases does an ethnographer contrast specific words for "autonomy" with specific words for "conformity." We do not consider this problematic for the dual foundations framework. The framework is based on descriptions of practical trade-offs over inequality and social control, and it is these we operationalized to identify ethnographic examples. Descriptions of political contestation in accordance with these trade-offs but without reliance on counterpoised Western political idioms support the idea that the ethnographers are describing objective conditions rather than projecting European ideas onto reality. This is significant because it addresses another of Borgerhoff Mulder's concerns: that evidence for the dual foundations framework merely reflects ethnographers interpreting social life in Western terms. The relative absence of such Western political idioms in our ethnographic examples aligns with the long-standing observation that ethnographers are more likely to notice and describe things that are different from their own society than things that are similar (Naroll and Naroll 1963).

Similarly, Sheehy-Skeffington and Thomsen question the inequality dimension's cross-cultural ubiquity, instead propounding a hypothesis from the social dominance literature that this dimension of ideology is restricted to surplus-producing societies with group-based hierarchies. The dual foundations framework's prediction that all societies should evidence political contestation of inequality thus clearly distinguishes the two approaches. This point is important because Sheehy-Skeffington and Thomsen also question the dual foundations framework's novelty, given the existence of a prior psychological literature using the Social Dominance Orientation (SDO) and Right-Wing Authoritarianism (RWA) scales. This is a surprising claim because, while the dual foundations framework is plainly indebted to prior work premised on SDO and RWA (particularly Duckitt and Sibley [2009], as acknowledged in our article), these frameworks make different predictions. Contrary to the social dominance interpretation that political contestation of inequality is premised on the existence of group-based hierarchies, the dual foundations framework identifies the trade-off between cooperation and competition as the bedrock for contestation of inequality both between groups and on an interpersonal level. As outlined in our article, and explored more deeply in previous publications (Claessens et al. 2020), the dual foundations framework's linking of preferences for interpersonal cooperation with proequality political beliefs into a single "inequality" dimension rests on a large and growing literature based on abstract, financially incentivized economic tasks (Claessens et al. 2022, 2023; Fischer, Atkinson, and Chaudhuri 2021; Grünhage and Reuter 2021; Halali et al. 2018; Lavender Forsyth, Chaudhuri, and Atkinson 2023). Moreover, the dual foundations' hypothesis explains why we find ethnographic evidence for political contestation of inequality even in groups without group-level inequalities based on surplus production, like many forager and horticulturalist societies. Sheehy-Skeffington and Thomsen's claim that we lack "proper justification" for combining preferences for cooperation and equality across interpersonal and intergroup contexts is therefore unfounded. Furthermore, their argument that fundamental differences exist between cooperation as "generosity," as "interdependence," and as "egalitarianism" overlooks that generosity is a proximate psychological explanation for cooperation, interdependence is an ultimate social explanation for cooperation, and egalitarianism is a social consequence of cooperation, and all are therefore mutually compatible.

On the basis of these principled differences with social dominance theory, alongside the problems we and others have discussed elsewhere with treating RWA as a measure of abstract preferences for social control, rather than culture-specific socially/religiously conservative attitudes (Crowson 2009; Fasce and Avendaño 2020; Malka, Lelkes, and Holzer 2017; Van Hiel et al. 2007), we are confident in putting forward the dual foundations framework as a valuable extension to prior two-dimensional models of political psychology predicated on SDO and RWA. Perhaps one reason for confusion here is that many ideas introduced in the dual foundations framework are already being incorporated into preexisting theories. Osborne et al.'s (2023) review of the literature on RWA and SDO, which Sheehy-Skeffington and Thomsen cite as having already demonstrated key predictions of the dual foundations framework, itself cites and reiterates much of the evolutionary argument laid out in our introduction of the framework (Claessens et al. 2020; Sibley being an author on both papers). Far from gazumping our predictions, Osborne et al.'s (2023) review showcases the value of the dual foundations framework to current thinking.

A set of literature not included in our review, but for which we are grateful to Borgerhoff Mulder for drawing attention to here, is the line of research following from Durkheim's "integration and regulation" model, including Douglas's "group and grid" and the use of "bonding and binding" dimensions in development economics. While we agree with Borgerhoff Mulder that our article could not have cited all previous literature relevant to the

dual foundations framework, this material in particular makes an important contribution to our list of two-dimensional political models and strengthens our argument that inequality and social control are recognized as central to politics across an expansive diversity of places, times, and cultures.

Garfield's commentary raises concerns about our method of analysis of the PSF data. Overall, we welcome his suggestions and look forward to testing the dual foundations framework's predictions in this way in the future. In the meantime, we defend our current analysis, not as a comprehensive examination of the topic of cross-cultural political ideology in its totality—as this was not our aim—but to specifically establish the plausibility of the dual foundations framework by presenting evidence that the political divisions familiar to the West are actually more ubiquitous than commonly accepted, with the ultimate aim to initiate a program of research bridging theory and methods from psychology and anthropology to test and refine this framework in the future. We therefore appreciate Garfield's call to test the dual foundations framework against clearly defined alternatives. While beyond the scope (and space limitations) of our article, this is something we would like to pursue in the future.

Garfield also questions the transparency of our PSF analyses. However, a list of all search terms would not aid transparency, since we are only claiming to have found examples of contestation, not making claims about their frequency or covariates, and we applied a range of different strategies (not limited to key word searches) for identifying potential evidence for the two dimensions of politics across the 60 PSF societies. We ensure transparency instead by presenting in full all of the data that we rely on to make our argument. Anyone can thus check whether the examples identified for each society match the criteria we use to operationalize the dual foundations framework. Garfield notes that for some societies, evidence for the presence of one of the dimensions comes from a single ethnographic example. We agree that a larger number of examples per society would be ideal but do not view reliance on one example as sufficient reason to reject the veracity of such an observation. We also note that the "paragraph count" column in the PSF data in the appendix indicates the total number of paragraphs for each society. Further work will help bolster or challenge our findings, but the current analyses do show the dual foundations framework to provide a plausible model of politics across a wide and prespecified (i.e., non–cherry picked) variety of societies.

Garfield and Van Hiel both suggest that in contrast to our theory-driven dual foundations framework, a "bottom-up" data-driven approach might be more fruitful. Garfield suggests exploratory analysis techniques could produce insights otherwise missed by relying "on singular theories developed using evidence from postindustrialized contexts," while Van Hiel suggests finding a dimensional model of politics for each society separately before comparing these. We acknowledge the potential benefits a data-driven approach offers. But, leaving aside questions about the tractability of particular exploratory strategies, both approaches have valid roles within the scientific project, and developing good theory is a crucial part of good science (Muthukrishna and Henrich 2019). While not wanting to dissuade others from utilizing data-driven approaches, we feel comfortable in moving forward with the dual foundations framework that Garfield himself describes as "valid and worth testing."

The commentators suggest a large variety of topics that might be studied in relation to the two dimensions of politics. These contain many good ideas with potential for future investigation. Factors including the role of the state and media, societal shocks like wars and pandemics (Puthillam), gender dynamics (Garfield), coalitional competition, the roles of genetics and socialization, and secondary effects of ideology on the perception of the world (Sheehy-Skeffington and Thomsen) are indeed all related to individual- or group-level variation in political ideology in Western psychological research. We see our article as laying the groundwork for just this kind of research beyond Western, industrialized, politically centralized contexts.

Puthillam raises concerns about our proposal for a psychometric scale to measure preferences toward inequality and social control across cultures, worrying that it could not be both abstract enough and concrete enough and could thus overlook the issues that matter most to people. He argues that framing local issues in universalizing terms is unhelpful because ideology is "often too context and issue driven" and doing so risks perpetuating stereotypes that create harm for Global South communities. We agree that theories that advance essentialist stereotypes about Global South communities have harmful effects. However, this is not what the dual foundations framework does. On the contrary, its account of politics and ideology highlights the commonalities that exist across Western, non-Western, and nonindustrialized contexts, pushing back against ideas that suggest that Western political thinking is fundamentally unique in world history (see also Muhlberger and Paine 1993). Moreover, the hypothesis that cross-cultural ideology is too local to be profitably understood through a common lens deserves proper testing against proposals like ours.

Overall, we are delighted to have this opportunity to draw together a group of researchers from different backgrounds to critically discuss the new dual foundations framework and make suggestions for its future development. We are also grateful to the commentators for sharing not only their concerns but also what they see as the value of our contribution. One main point of praise is our collection of ethnographic materials, with Van Hiel noting the "solid empirical and theoretical basis" we have been able to provide for the dual foundations framework, Sheehy-Skeffington and Thomsen describing the ethnographic materials' "rich insights into how motives for inequality and control, and the ideological legitimation of such arrangements, play out in small-scale societies," and Borgerhoff Mulder singling out our "remarkable use of the Probability Sample Files" to create "an extremely useful compilation of focused observations." The commentators also endorse our ambitions for future cross-cultural research, based on a shared evolutionary framework that others can take up and test, challenge, and build on. The

dual foundations framework's "hypothesis that trade-offs between cooperation and competition and between autonomy and conformity underlie much of human sociopolitical dynamics [is] valid and worth testing" (Garfield), our "plea to combine the research efforts of anthropologists and psychologists" is appealing (Van Hiel), and our strategy to operationalize the framework in the form of a psychometric scale is an exciting new avenue for research (Borgerhoff Mulder). We are encouraged by these endorsements and hope that our article and the ensuing discussion prompts more researchers to engage with the dual foundations framework by taking up a range of methods, including both ethnographic and psychometric, to refine, extend, or overturn our current understanding of the structure of political contestation and ideology across the full spectrum of human modes of existence.

— Guy A. Lavander Forsyth, Ananish Chaudhuri, and Quentin Atkinson

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