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Ideological constraint and behavioral consistency—A person-centered approach to political attitudes and Public Goods Games behavior

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A long-standing debate in research on the political attitudes of the mass public concerns the extent to which these attitudes are ideologically constrained. Another, more recent debate, asks whether these attitudes are indicative of more general social behavior. We investigated (1) how ideologically constrained the preferences of the mass public are and (2) whether ideological differences are associated with actual social behavior. To shed new light on these entrenched debates we employed a person-centered approach—latent profile analysis (LPA). A sample of German students ($N = 659$) responded to a questionnaire assessing attitudes toward currently contested topics (e.g., immigration, environmental policy) and played the Public Goods Game. By means of LPA, we identified four rather distinct groups. The Normative (46.0%) and the Anti-gay (16.4%) expressed the average opinion on all issues, with the exception that the latter were strongly against gay rights. The Progressive (28.9%) supported, across all issues, greater equality. This group also gave most in the Public Goods Game. The Right-Wing (7.0%) had strong views that were exactly the reverse image of those of the Progressive. Women were disproportionately progressive, and men Right-Wing or Anti-gay. Non-native speakers were disproportionately Anti-gay. We suggest that the Progressive and the Right-Wing were ideologically constrained in the customary sense—they were consistent from one issue to the next. We argue that the Normative and Anti-gay were also ideologically constrained—those believing themselves to have stepped out of ideology are in our interpretation the most enslaved by ideology.

KEYWORDS

political ideology, ideological constraint, person-centered approach, political attitudes, Public Goods Game, experimental economics, far-right

1 Introduction

The present paper addresses two longstanding debates in the literature on political preferences: (1) how ideologically constrained are the preferences of the mass public, and (2) whether ideological differences are confined to self-report measures or whether there is consistency between one's political commitments and one's actual social behavior. To shed new light on these entrenched debates we employed latent profile analysis—a person-centered approach. This type of approach seeks to identify groups of individuals

who share particular attributes or relations among attributes. Moreover, we will investigate whether ideological commitments are associated with behavior in an ideologically relevant real-world social situation—contributions to a Public Goods Game. As with constraint, predictions with regards to behavior are also difficult to make. The study is thus overall exploratory. Data was collected from a sample of German students, who responded to items assessing political attitudes and played a monetarily incentivized Public Goods Game.

Political ideology is a term fraught with problems, having been called “the most elusive concept in the whole of social science” (McLellan, 1986, p. 1). It can, on a very general level, be thought of as the ethical ideals, principles, doctrines, myths or symbols of a social movement, institution, class, or large group; it explains how society should work, and it offers some political and cultural blueprint for a certain social order. E.g., socialism is an ideology that supports a certain economic system (however, the same term can also be used to denote that same economic system).

The present paper concerns individual-level political ideology. Despite disagreement about the specific content and structure of ideology, it is typically defined as a framework that organizes or “constrains” individuals’ social and political attitudes (Gerring, 1997). Reviews of individual-level political ideology typically define ideology as relating to political beliefs, attitudes, or preferences with regards to how society should be ordered; for instance, advocating vs. resisting social change, or rejecting vs. accepting inequality (e.g., Feldman, 2013; Jost et al., 2009).

From the outset, research on individual-level ideology has raised the critical question of whether individuals’ attitudes are organized enough to be described in terms of ideology. Converse (1964), in his famous chapter on the nature of belief systems in mass publics, raised alarm about the apparent “innocence” of the American public, showing that most people lacked the political awareness necessary to form ideologically constrained policy preferences—citizens did not know, as Converse (1964) famously put it, “what goes with what”.

Ideological constraint refers to the extent to which a person’s opinions are consistent from one policy issue to the next. For instance, it would not be consistent to support absolute free speech and simultaneously support banning certain books (e.g., books that depict sexual acts). Based on previous research, one could expect most people to be ideologically innocent; that is, to lack ideological coherence and show weak to non-existent organization of their political opinions (e.g., Lupton et al., 2015). However, the above view has been challenged, with some research suggesting that polarization has increased partisan constraint (e.g., Tyler and Iyengar, 2023).

Some researchers have posited that ideological constraint, as a simplifying mechanism to organize broad constellations of political beliefs, may be characteristic of only some people. The more politically engaged, committed, educated, knowledgeable, and partisan have all been argued to show higher levels of ideological constraint (for a review see Lupton et al., 2015). These predictors of constraint overlap, and it may not be possible to pinpoint which of these does the “causal” work (for an excellent discussion on the difficulties of causal justification and more generally on

disentangling predictor, mediator, collider, and control variables; see Wysocki et al., 2022).

Other research has suggested that at least the US public (the literature in this field stems to large extent from the US), with increasing partisanship and polarization on at least some issues, has in its entirety become more constrained (for a recent review, see Tyler and Iyengar, 2023). The mass attitudes of the US public, at all levels of political sophistication, have now been argued to fall under the same left–right dimension that characterizes divides in the political elite (Hare, 2022). Moreover, previously non-political issues have become politicized in the process of widespread conflict extension (Hare, 2022).

However, another stream of literature maintains that little has changed since Converse (1964), minimizing the role that ideology plays in the thinking of the mass public or even in subsets of that population (Kinder and Kalmoe, 2017). Although the US electorate may now be more ideological, with heightened levels of affective polarization against outgroup ideologues, this ideological identity is not accompanied by either policy attitude extremity or a constrained sets of policy attitudes (Fiorina and Abrams, 2008; Mason, 2018), and that those who have argued for increased constraint have misinterpreted their own data (Fiorina et al., 2008). In sum, past the half-century mark of Converse’s (1964) field-defining essay, the nature of political ideology in the mass public and how it has changed in response to possible partisan polarization remains enigmatic.

The above research has investigated whether the mass public can be described as ideologically constrained. A related line of research has investigated what constraint looks like in different contexts and in different people. I.e., given that there is at least some ideological constraint, this second line of research has addressed the question “what goes with what?” Factor analysis and other dimension-reducing techniques have been employed to tackle the question of how political attitudes are structured. Typically, factor analysis has uncovered a one- or two-dimensional structure. Mass publics across the globe tend to reveal a two-dimensional structure (Dassonneville et al., 2024; Malka et al., 2019; Lupton et al., 2015). One dimension pertains to economic/fiscal attitudes, the other to social/cultural attitudes (e.g., Feldman and Johnston, 2014). Regarding the economic dimension, right-wing (as opposed to left-wing) economic policies focus on a large role for free markets and individual action, and rejection or retrenchment of the welfare state. Social conservatism (as opposed to liberalism) can broadly speaking be defined as “resistance to change and the tendency to prefer safe, traditional and conventional forms of institutions and behavior” (Wilson, 1973, p. 4). It emphasizes the importance of preserving ties that bind people together, such as family, religion, and customs, making traditional morality and a national way of life central for social conservatism (Budge et al., 2001).

A one-dimensional structure, often denoted either “left-right” or “liberal-conservative”, describes the attitude structure of political elites (e.g., political parties, social scientists, philosophers, the media; Lönqvist and Kivikangas, 2019; Lupton et al., 2015). In these models, one pole is economically left and socially liberal, whilst the other is economically right and socially conservative. Consistent with the literature on the constraining effects of political sophistication in the mass public, also those highly educated

and highly politically engaged are more likely to organize their economic and social attitudes along one dimension (Sidanius and Duffy, 1988). Pertinent to the present research, we could expect to find people who are consistently left and liberal, or right and conservative, across all political issues. However, the less engaged may lack any discernible patterns (express a plethora of more or less contradictory views that are not in any way constrained by political ideology).

As recently noted by Grünhage and Reuter (2022), studies investigating the relationship between political individual-level political ideology (which they denote political orientation) and actual social behavior are relatively scarce (except for overtly political behavior, such as signing a petition or voting). In some sense, this is not that surprising. Research on individual-level political ideology falls within the realm of psychology, a research field that despite claiming itself to be a science of behavior, has, at least since Mischel's (1968) famous critique, been under attack for not having much to say about actual behavior. Not much has happened in way of response to Mischel's critique. Reviewing the literature Baumeister et al. (2007) noted that psychology still can be described as a science of finger movements (referring derisively to self-report measures).

Behavioral economics offers a framework within which social behavior beyond self-reports can be investigated. The games employed in this approach represent controlled situations in which behavioral decisions directly impact monetary outcomes (Falk and Heckman, 2009). The most well-known of these games is perhaps the Prisoner's Dilemma (Peterson, 2015) in which two people can cooperate for mutual benefit or betray their partner ("defect") for individual reward. The Public Goods Game, which we employed in the present research, can be seen as an n-person version of this game.

In a recent review of the existing studies relating ideological differences to behavioral decisions in economic games, Grünhage and Reuter (2022) noted, first, that there are very few studies. Second, they noted that most of the studies that do exist report null-findings or inconsistent findings. They suggest that one reason for this could be the use of ideological self-reports as measures of political ideology. Indeed, ideological self-identification, regardless of whether it is assessed on one or more dimensions, is a troubled concept. Among the "ideologically innocent" (Converse, 1964), political beliefs will not fit any political ideology. For most of the population, self-identified ideology may reflect group-identification, not views on political issues (Kinder and Kalmoe, 2017). E.g., a large portion of Americans who identify as conservatives are only symbolic conservatives—i.e., attached to symbols of conservatism, but endorsing liberal policies in practice (Ellis and Stimson, 2009, 2012).

Another reason that self-identified ideology and behavior do not tend to align could be that the interpersonal comparability of scales measuring ideological self-identification (e.g., the left-right scale) is impaired—people's self-placement, education and cultural background are all associated with how the terms "left" and "right" are understood (Bauer et al., 2017). Grünhage and Reuter (2022)—measuring political ideology by means of participant's stances on timely issues in German politics (the same approach that we adopt in the present research)—showed that those who

responded, on average, in a more liberal manner, were somewhat more co-operative in a Public Goods Game and a Trust Game.

Besides those more liberal (Grünhage and Reuter, 2022), also those on the left could be expected to give more in the Public Goods Game. Focusing on the individual's motive for giving in the Public Goods Game, Ashley et al. (2010) found strong support for inequality aversion. Concerns regarding equality have been argued to motivate sympathy for the left—on the left, inequality is perceived as illegitimate and unjustified (e.g., Jost et al., 2003). This implies that people on the left could be expected to be more likely to give in the Public Goods Game. Those for whom equality is less important, could have other considerations, which could motivate either giving less (e.g., maximize their own income, wanting to avoid the risk of being duped) or giving more (e.g., wanting to be a good Christian, utilitarian considerations).

Social scientific research typically investigates associations between variables, such as between attitudes and other attitudes, or between attitudes and behavior. Previous research on ideological constraint, the structure of political attitudes, and the alignment of political preferences and social preferences has, almost exclusively, been conducted within the variable-centered approach (see below for exceptions). By contrast, we will use a person-centered approach to allow us to identify groups who have similar patterns of responses on the observed variables. The nature of group is determined by the estimated probabilities of responses to each observed variable in the group. Employing a person-centered approach should allow us to identify groups of people whose attitudes are (or are not) ideologically constrained and allow to estimate the size of these groups. Moreover, we will see how attitudes are organized in different groups, rather than on average across the entire sample. There are some examples of this type of approach being employed successfully.

Feldman and Johnston (2014) were among the first to test the possibility that unique response patterns underlie people's political beliefs. Using US data, they assessed participants' support for issues such as government services, health insurance, government guaranteed jobs, abortion, and same-sex couples' adoption rights. They found six different subgroups, the largest of which were social conservatives, consistent liberals, consistent conservatives, and libertarians. The more general point of their research was that to provide a richer picture of the structure of political attitudes and do justice to the ways in which people actually organize their political beliefs, there is a need to study ideology from a person-centered perspective. However, very little has happened since. A notable exception is a recent report by the European Council on Foreign Relations (Krastev and Leonard, 2024), which employed a person-centered approach to suggest the existence of five "crisis tribes" organized around security, health, climate, and migration. These have created political identities that run through and between European countries.

The purpose of the present research is to investigate to what extent the political attitudes of the public are constrained by political ideology and whether political attitudes are associated with social behavior—monetarily incentivized Public Goods Game decisions. Even more importantly, building on the work of Feldman and Johnston (2014), we want to highlight the usefulness of latent profile analysis in the investigation of ideology. This is true not

only for the investigation of more theory-driven questions, such as the extent to which attitudes are constrained by ideology, but also for more practical questions, such as demographic sorting between profiles. On a general level, our argument is that person-centered analyses, in the context of the political ideology of mass publics, allows for a rich understanding of the data.

2 Methods

2.1 Participants and procedure

The study was conducted as an online experiment using the web application Qualtrics (Provo, UT) to create the data entry screens. Data were collected in three waves between June and July 2023. Participants were contacted via the online recruitment system ORSEE (Greiner, 2015) using the mailing list of the economics lab of a large German university. Students received a fixed payment of 4€ for their participation. We originally recruited 777 students from different disciplines. Out of these 777 students, 659 provided at least some of the key attitude ratings and formed our study sample (see Table 1 for sample characteristics). Prior to the experiment, participants received an automated email with a link to the experiment. In addition to the described measures, we asked participants about their demographic background at the end of the experiment, including items on gender, age, and “native language”. After all participants in a wave had completed the study, the experimenters calculated and converted the individual earnings from the public goods game. These were then promptly paid via Paypal together with their fixed payment of 4€.

2.2 Measures

2.2.1 Attitude toward affirmative action

All attitude items were assessed on a scale from -5 (totally disagree) to 5 (totally agree). Attitude toward affirmative action was measured with five items: (1) introducing gender-neutral language in offices is nonsense (reverse coded), (2) it is wrong that US universities favor ethnic minorities in admissions (reverse coded; please note that this is not a typo—at the time the study was conducted, ethnic quotas were not in place at German universities, but the issue was being widely debated, with much media attention on the ethnic quotas in place at US universities), (3) employers should be obliged to prefer women with equal qualifications, (4) to compensate for injustices, companies should create a special opportunity for applicants with an immigrant background, and (5) women need to learn that they are not entitled to special treatment in professional life (reverse coded). Alpha reliability for these items was 0.71 and they were averaged into a composite score (higher values representing higher support for affirmative action, labeled as “Pro-AA” in figure labels).

2.2.2 Attitude toward immigration

Attitude toward immigration was measured with five items: (1) asylum seekers are more inclined to criminality than Germans,

(2) there are too many foreigners living in Germany, (3) German students struggle to assert themselves due to the high percentage of migrants in school classes, (4) migrants burden our social systems, and (5) the federal government is too lenient with migrants. These items had a coefficient alpha of 0.84 and they were averaged into a composite score (higher values representing higher resistance to immigrants and immigration, labeled as “Anti-Mig” in figure labels).

2.2.3 Attitude toward gay people

Attitude toward gay people was measured with three items: (1) gay men and lesbians should be free to live their own lives as they wish, (2) if a close family member were gay or lesbian, I would feel ashamed (reverse coded), and (3) gay and lesbian couples should have the same rights to adopt children as heterosexual couples. These items had coefficient alpha of 0.82 and they were averaged into a composite score (with higher values representing higher acceptance of gay people, labeled as “Pro-Gay” in figure labels).

2.2.4 Attitude toward inequality

Attitude toward economic inequality was measured with three items, (1) high social benefits lead to a better society, (2) minimum wages are not effective (reverse coded), and (3) manager salaries should be capped. These items were not internally consistent: coefficient alpha was 0.33. Due to this, these items were retained as single items with no recoding (that is, when employing these single items, we no longer reverse coded the minimum wage item), with higher scores representing higher support for high social benefits, higher resistance to minimum wage, and higher support for capping management salaries, respectively, labeled as “ProSocBen”, “AntiMinWge”, and “ProCap” in figure labels.

2.2.5 Environmental attitudes

Attitudes toward environmental issues were measured with three items, (1) Taxes on fossil fuels like oil, gas, and coal are too high (reverse coded), (2) Public funds should be used to subsidize renewable energies like wind and solar energy, and (3) A law banning the sale of the least energy-efficient household appliances is sensible. Coefficient alpha was 0.52, and though it was relatively low, we decided to form the composite score out of the three items to keep the number of indicators reasonable (higher scores mean higher pro-environment attitudes; this variable is labeled as “ProEnv” in figure labels).

2.2.6 Attitude toward the military

Attitudes toward the military were measured with three items, (1) Germany should not engage in resolving international conflicts through military means (reverse coded), (2) The Bundeswehr needs to be upgraded, and (3) Research on modern weapon systems must be expanded in Germany. Coefficient alpha for these items was 0.65 and they were averaged into a composite score of pro-military attitudes (labeled as “ProMil” in figure labels).

TABLE 1 Descriptive statistics ($N = 659$).

Continuous variable	Mean (SD)
Pro affirmative action	-0.21 (2.12)
Anti migration	-1.39 (2.25)
Pro gay	3.57 (2.06)
Pro social benefits	1.23 (2.71)
Anti minimum wage	-1.76 (2.83)
Pro capping management salaries	0.20 (3.22)
Pro environment	1.20 (1.95)
Pro military	0.74 (2.47)
PG guess (average)	7.74 (5.89)
PG amount	7.34 (6.93)
Age	24.82 (4.60)
Categorical variable	Frequency (%)
Gender	
Men	297 (51%)
Women	281 (48%)
Language	
German	349 (59%)
Non-German	238 (41%)

Attitudes were measured on a scale from -5 to 5. PG Guess is the average of the three guesses participants made with regards their three game partners.

2.2.7 Public goods game

Participants were randomly assigned to groups of four participants and played an incentivized standard one-period public goods game. Before the decision was made, the participants answered two comprehension questions about the incentive mechanism of the public goods game. Only if the participants answered these two questions correctly were they then able to make their payout-relevant decision. In the game, each of the four subjects simultaneously chose how to allocate 20 Points (1 Point = 0.20 €) between a private account and a joint group project. A group member's earning was the sum of what he/she puts into the private account plus 0.4 times the total value of the group. This means that for every point allocated to the private account, a group member earned one point. If one point was allocated to the group project, a group member's income from the project increased by $0.4 \times 1 = 0.4$ points. However, this also increased the income of all other group members by 0.4 points, so that the total income of the group increased by $0.4 \times 4 = 1.6$ points. After the contribution decision, the group-members were asked about what they expected the other four group-members to contribute, respectively.

3 Results

Descriptive statistics of all variables are presented in Table 1. Data pre-processing was conducted in SPSS and R (v. 4.1.1, R Core Team, 2021), and analyses were conducted in MPlus and R.

Latent profile analyses (LPAs) were conducted with MPlus statistical software version 8.9 (Muthén and Muthén, 2017). First, a series of unconditional LPAs was conducted with attitudes toward (1) affirmative action, (2) immigration, (3) gay rights, (4) social equality (3 separate items), (5) environment, and (6) the military as the indicators ($N = 659$). Indicators were standardized prior to analyses and 2–7 profile solutions were explored. Model comparison statistics are presented in Table 2. As shown there, the likelihood ratio tests for k vs. $k-1$ classes did not show clear preference (and failed for the two last solutions). However, AIC, BIC, and sample-size adjusted BIC all substantially dropped between 3 and 4 classes (see Supplementary Figure S1), and the 4-class solution was the most interpretable. Average posterior class probabilities for this solution were all > 0.83 . Therefore, the 4-class solution was chosen for further analyses.

The 4-class solution is depicted in Figure 1 (for the observed raw means in each class, see Table 3). The first class contained 191 participants (28.9% based on most likely class membership) and as shown in Figure 1, it was characterized by strongly supporting affirmative action, immigration, gay rights, social equality (except their attitude toward minimum wage didn't differ from the sample average), and environment protection and being (moderately) anti-military. We labeled this class as "Progressive". The second class was small with 46 participants (7.0%). It represented largely a reverse image of the first class, characterized by being strongly against affirmative action, immigration, high social benefits, capping management salaries, and environment protection; they were also strongly pro-military. Their attitudes toward gay rights were, however, not that different from the sample average. We labeled this class the "Right-Wing". The third class consisted of 108 participants (16.4%) and it was most clearly characterized by being strongly against gay rights. Members of this class were also moderately against affirmative action, minimum wage, and environmental protection, and immigration. We labeled this class as "Anti-gay". The fourth class was largest with 314 participants (46.0%) and it was characterized by average scores on all dimensions, except being moderately pro-gay. We labeled this class as "Normative".

Next, a covariate LPA was conducted in which the latent class variable was regressed on gender, language (native German vs. not), and the composite guess of how much others were going to give in the Public Goods Game averaged over the three guesses ($n = 576$; not everyone responded to these items). Adding age and/or the amount given in the Public Goods Game as covariates caused non-convergence due to multicollinearity and low variance within some of the classes. Therefore, possible differences between classes in age and in Public Goods Game decision were investigated in separate analyses reported later.

Covariate LPA with the above listed 3 covariates had fit indices and entropy comparable to the unconditional LPA (AIC = 12,213.9, BIC = 12,440.4, SABIC = 12,275.3, Entropy = 0.78), and the class structure remained similar to the unconditional model, though with slight changes to indicator means and significance levels, summarized in the Supplementary material.

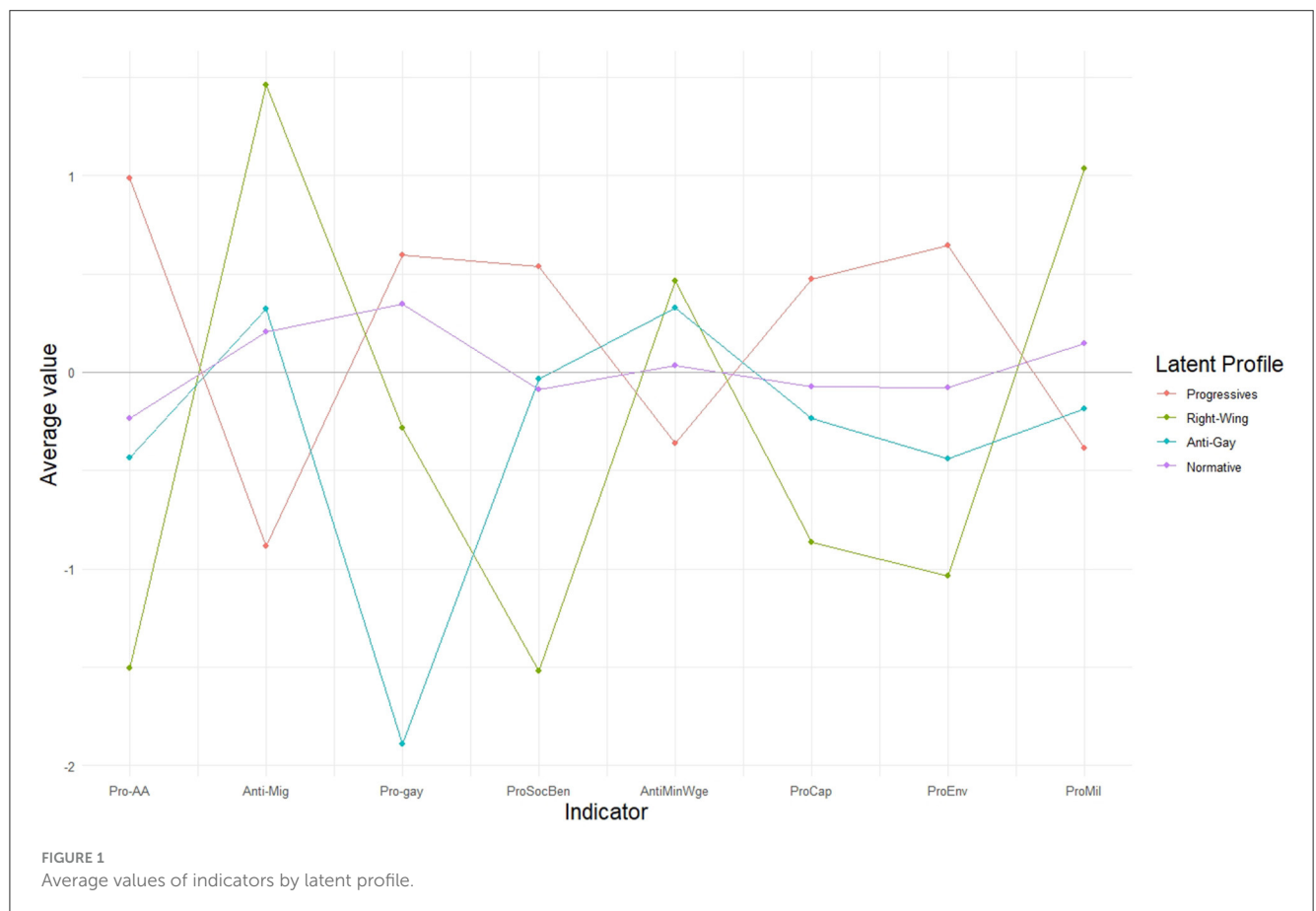
Regarding gender, out of the 578 participants who reported their gender, 281 (48.6%) reported being women. Crossing gender with most likely class membership, 106 of the Progressive (63.5% of the Progressive), 9 of the Right-Wing (20.9%), 23 of the Anti-gay (28.0%), and 143 of the Normative (50.0%) reported being women.

TABLE 2 Fit indices and k-1 test results for the latent class solutions.

	AIC	BIC	SABIC	Entropy	BLRT	VLMR	Smallest N_c
2 classes	14,309.4	14,421.7	14,342.3	0.65	<0.0001	<0.0001	296
3 classes	14,169.6	14,322.3	14,214.3	0.72	<0.0001	0.0518	56
4 classes	13,870.8	14,063.9	13,927.4	0.77	<0.0001	0.201	46
5 classes	13,816.5	14,050.1	13,885.0	0.78	<0.0001	0.678	39
6 classes	13,803.1	14,077.0	13,883.3	0.78	*	*	19
7 classes	13,821.1	14,135.4	13,913.2	0.79	*	*	0

SABIC, sample-size adjusted BIC; BLRT, *p*-value for the parametric Bootstrapped likelihood ratio test for *k* vs. *k*−1 classes; VLMR, *p*-value for the Vuong-Lo-Mendell-Rubin likelihood ratio test for *k* vs. *k*−1 classes; Smallest N_c , *N* of smallest class based on estimated most likely class membership.

*Likelihood ratio test failed despite increasing parallel random starts to 10,000 and 20,000.



Looking at the association between gender and expected class membership, the Progressive were more likely to be women than the Right-Wing ($b = 1.22$, $SE = 0.36$, $p = 0.001$) and the Anti-gay ($b = 1.58$, $SE = 0.35$, $p < 0.001$). The Normative were also more likely to be women than the Right-Wing ($b = 1.35$, $SE = 0.52$, $p = 0.009$) and the Anti-gay ($b = 1.72$, $SE = 0.43$, $p < 0.001$). The Progressive and the Normative did not differ ($b = 0.14$, $SE = 0.42$, $p = 0.746$, $ref = Normative$), and neither did the Right-Wing and Anti-gay ($b = 0.36$, $SE = 0.45$, $p = 0.415$, $ref = Anti-gay$).

Regarding native language, most participants who reported their native language were German speakers (349 out of 587; 59.5%). The native and non-native speakers were not equally

distributed across classes: 115 out of the 173 Progressive (63.5%), 34 out of the 43 Right-Wing (81.0%), 28 out of the 83 Anti-Gay (33.3%), and 172 out of the 288 Normative (59.7%) reported being native German speakers. Looking at differences between classes, the Anti-gay were less likely to have German as their native language than those classified as Right-Wing ($b = -2.35$, $SE = 0.55$, $p < 0.001$) or Progressive ($b = -1.83$, $SE = 0.45$, $p < 0.001$). The Normative were also less likely to be native German speakers than the Right-Wing ($b = -3.22$, $SE = 0.92$, $p = 0.001$), or the Progressive ($b = -2.69$, $SE = 0.97$, $p = 0.006$). The Progressives and the Right-Wing did not differ from each other ($b = 0.53$, $SE = 0.47$, $p = 0.255$, $ref = Progressives$), nor did the Anti-gay and Normative ($b = 0.86$, $SE = 0.78$, $p = 0.267$, $ref = Normative$).

TABLE 3 Means (SDs) of observed means by most likely class membership.

	Latent class			
	Progressive	Right-wing	Anti-gay	Normative
Pro-aff. act.	1.85 (1.44)	-3.40 (1.35)	-1.13 (1.74)	-0.71 (1.50)
Anti-migration	-3.38 (1.49)	1.87 (1.66)	-0.67 (2.13)	-0.93 (1.73)
Pro-gay	4.80 (0.55)	2.99 (1.35)	-0.32 (1.45)	4.29 (0.97)
Pro social ben.	2.68 (2.10)	-2.89 (2.39)	1.13 (2.69)	1.00 (2.37)
Anti min. wage	-2.78 (2.80)	-0.44 (3.10)	-0.83 (2.80)	-1.67 (2.63)
Pro man. sal. cap	1.73 (2.99)	-2.58 (3.17)	-0.55 (3.02)	-0.04 (3.00)
Pro environment	2.45 (1.59)	-0.81 (2.08)	0.35 (1.87)	1.04 (1.67)
Pro military	-0.28 (2.18)	2.79 (1.72)	0.16 (1.80)	0.87 (2.03)

Attitudes were measured on a scale from -5 to 5.

Regarding guessing what others would donate in the Public Goods Game, the Normative had a slightly higher average guess of other's donation than the Anti-gay ($b = 0.55$, $SE = 0.22$, $p = 0.013$). No other differences were found.

The relation of age with class membership was investigated with a regression model predicting age from class membership and pairwise comparisons were conducted with Tukey's p -value adjustment. However, no age differences between classes were found (the estimated mean ages were 25.2, 24.5, 25.2, and 24.7 years for the Progressive, Right-Wing, Anti-gay and Normative, respectively, all contrast estimates $< |0.74|$, all $ps > 0.76$).

Finally, we were interested in differences in the amount given in the public goods game. To this end, another regression model predicting the amount given from class membership was fitted, and pairwise comparisons were conducted with Tukey's p -value adjustment. The model-estimated amounts given per class (SEs) were 8.40 (0.52) for the Progressive, 6.28 (1.05) for the Right-Wing, 5.72 (0.75) for the Anti-gay, and 7.35 (0.41) for the Normative. The Progressive gave significantly more than the Anti-gay (contrast = 2.68, $SE = 0.91$, $p = 0.018$). No other differences were found. Coefficient alpha was 0.52, and though it was relatively low, we decided to form the composite score out of the three items to keep the number of indicators reasonable (higher scores mean higher pro-environment attitudes; this variable is labeled as "ProEnv" in figure labels).

4 Discussion

By means of person-centered analysis, more specifically LPA, we identified four rather distinct types based on their attitudes toward several of the issues currently contested in the German political landscape. These types differed in terms of demographics, as well as how much they gave in a monetarily incentivized Public Goods Game.

The largest class that we identified were the Normative (314 participants; 46.0%), who were very similar to the Anti-gay (108

participants; 16.4%), with the exception that the latter were strongly against gay rights. With this exception in mind, both groups can be characterized as expressing very middle-of-the-ground views on all topics that we had identified as currently most salient in the German political debate. The term coined by [Converse \(1964\)](#)—ideological innocence—may not be appropriate, as it has been used to describe people that may have thoughts about politics, but these thoughts are ideologically inconsistent. By contrast, these people very consistently and expertly express an opinion that does not deviate from the average opinion. The expected raw means for each class are, of course, difficult to interpret ([Table 3](#)), but they fall very close to the midpoint of the scale with regards to all issues, except in strong pro-gay sentiment, which suggests that such sentiment is the only socially accepted sentiment, not something that can be politely debated. It is important to note that the Normative are not a statistical artifact but reflect a genuine phenomenon—all of the latent classes that we identified could have been characterized by specific patterns of strong attitudes (e.g., libertarians, welfare chauvinists, socialist nationalists, climate deniers etc. could all have emerged from the data). Instead, we have a majority of participants who appear to be very good at exactly channeling the political zeitgeist, hitting the sweet spot between opposing factions on all issues. We would go as far as to argue that this group is extremely constrained in terms of ideology—they are aware of the political landscape they live in and take pains not to be "ideological". However, if the dominant ideology is (the illusion of) being "objective" and apolitical, this ideology could, among the Normative, have come into its own. That is, ideology may be so entrenched in this group that they are no longer able to see it—while causing them to look at things in a very subjective way, ideology may tell them they are being totally objective ([Žižek, 1989](#)). As suggested by an anonymous reviewer, one could argue that the Normative could be described as genuinely ignorant or disinterested rather than ideologically constrained. However, we do not believe they should be characterized as ignorant, as they without fail hit the sample mean (not the scale midpoint) on all scales (see [Table 1](#)). Arguably, their "disinterested" perspective is the most entrenched in ideology. As [Žižek \(1994, p. 6\)](#) puts it: "Stepping out of (what we experience as) ideology is the very form of our enslavement to it." This attitude establishes itself by a common-sense denouncement of ideological chimeras; it looks at objective facts and tackles real world problems without falling prey to ideological phrases. [Žižek \(1994\)](#) argues that the "common-sense" perspective, like all other perspectives, comes with own ideological presuppositions and carries biases (e.g., what do the supposedly objective "experts" define as "facts" and as "real problems"). However, these presuppositions and biases are not seen for what they are. Those hiding behind "common-sense" are thus neither willing nor able to evaluate their own assertions and beliefs, making them captive to their "common-sense" perspective. [Popper \(1945\)](#) makes a similar point regarding the dangers of common-sense knowledge—a blunder that confuses our theories of the world with the way the world really is.

One of the opposing factions mentioned above are the Progressive (191 participants; 28.9%); across all political issues, they took the side of those in the weaker position (e.g., they were for economic equality, gay rights, welcoming of immigrants,

and environmental protection). This group also gave most in the Public Goods Game, although only the difference to the Anti-gay was statistically significant. However, there was also ideological constraint on the right—we identified a much smaller group, the Right-Wing (46 participants [7.0%]), who had strong views on all issues expect gay rights, on which they were moderate. Otherwise, their opinions were exactly the reverse image of those of the Progressive.

4.1 Polarization and ideological constraint

Political polarization has, at least on some measures and in some populations, increased in the last decades. For instance, it appears clear that party elites in the US have polarized (Liu and Srivastava, 2015). With regards to public opinion, the empirical evidence for polarization remains elusive. Most pertinent to the present research, there is some evidence from the US General Social Survey that polarization defined, not necessarily as strengthening of attitudes, but as increased alignment between a diverse array of attitudes, has strengthened in the past several decades. This process has created “increasingly broad and encompassing clusters organized around cohesive packages of beliefs” (DellaPosta, 2020, p. 507). One could expect such “pluralistic collapse” or “Oil Spill” polarization (terms used by DellaPosta, 2020) to also show in research on ideological constraint.

However, as described in the Introduction, although some research has suggested that ideological constraint, at least on some issues, has increased with polarization (see Tyler and Iyengar, 2023), there appears to be as much research suggesting that political ideology still plays no role in constraining the opinions of the mass public (Kinder and Kalmoe, 2017; Mason, 2018) and to claim otherwise is to misinterpret the data (Fiorina et al., 2008). Our results suggest that one reason for the conflicting accounts of whether ideological polarization has or has not increased in the mass public could be that the majority of the mass public ardently seeks to convey that they are not polarized, and maybe not even political. This could mask polarization that may have happened among those who do express strong opinions about political issues. Indeed, almost a third of the participants could be labeled as Progressive, and they held strong leftist views on all issues.

It seems plausible that caring about equality, argued to unite the left (Jost et al., 2003), could constrain one’s political attitudes across many issues. The feminist scholar Hooks (1984) famously argued that different forms of inequality, such as classism, racism, imperialism, and patriarchy tend to be interrelated and inseparably connected to each other through interlocking webs of oppression. More specifically, forms of economic inequality, such as between management and labor, the rich and the poor, corporations and consumers, are interwoven with forms of social inequality, such as between white and black, men and women, binary and non-binary, migrants and natives, people with and without disabilities—inequality in the economic sphere is intertwined with inequality in the social sphere. Moreover, those on the left are more likely to interpret inequalities as the result of structural factors such as discrimination, stereotyping, and exclusion from social networks (e.g., Major and Schmader, 2001). For those on the left, inequality thus becomes a political problem. In their view, the dismantling of

one type of inequality, be it economic or social, thus requires the dismantling other types of inequality. If they are to be consistent, those on the left cannot oppose some forms of oppression and condone others.

There was also consistency on the right. A tenth of the participants could be labeled as Right-Wing, and they were very consistently opposed to the Progressive on all issues. In some sense, our results support the so-called “culture wars” (Hartman, 2019) narrative. This politically manufactured US based narrative could be loosely described as pertaining to political attitudes that fall on the social or cultural dimension of political space (e.g., LGBTQ+ rights, immigration). Perhaps one of the recently most successful maneuvers in the “culture war” has been to launch a “war on woke”; with “woke” being wielded by the right as an offensive weapon that encompasses all that they do not like (for a review, and an excellent reading of “woke” as a specific type of religious totem, see Madigan, 2023). Despite the seemingly ubiquitous presence of the “war on woke”, research on the mass public suggests that not much is happening. Rather it seems as if the “cultural wars are waged by limited religious troops on narrow policy fronts under special political leadership, and a broader cultural conflagration is just a rumor” (Layman and Green, 2006, p. 6).

Contrary to the above deflating account of the “culture wars”, our results actually support this narrative in the sense that more than a third of our sample could be described as at war—the Progressive and the Right-Wing had strong and opposite views on all issues (with the exemption of gay rights). This is in some sense surprising—European politics in the Twenty-first century has been marked by a rising tide of Right-Wing populist parties that have given cultural issues center stage (Noury and Roland, 2020). However, the ideological constraint that we observed among the Progressive and the Right-Wing was not restricted to cultural issues but included the economy and the military. This does suggest a polarization into two camps, in which political attitudes are very much arrived at by opposing whatever the “other side” supports. If “woke” is an inverted totem, as Madigan argues, “it embodies all that one’s social group is not, and in doing so, it defines one’s group negatively” (Madigan, 2023; p. 3). It is, of course, important to keep in mind that our sample was in no way representative of the German mass public in general. The young, and perhaps especially students, may be more concerned with cultural issues and also more likely to be polarized into opposing camps.

The consistency we found on the right can be considered rather surprising—in the US, among those on the right there are groups of people with very different political, psychological, moral, and demographic profiles (Ellis and Stimson, 2012; Weber and Federico, 2013; Feldman and Johnston, 2014; Lupton et al., 2017). In the US context, the heterogeneity of the right on social issues has been argued to be due to the mobilization of the religious right in the 1970s and President Reagan’s ability to appeal to both economically and socially conservative voters, attracting these previously separate factions to the Republican Party (e.g., Lienesch, 1982). Germany could be different in this regard, with opposition to “woke” forces being the most important unifying factor on the right.

As we lack longitudinal data, our results do not speak to whether polarization has increased. However, the consistency with which the Progressive and the Right-Wing were reverse images of each other, with exactly opposite views on all issues, does suggest

that some type of self-enforcing or self-perpetuating dynamic of intergroup conflict may have created a political climate in which a diverse set of issue conflicts has collapsed into one dimension. Not only are the Progressive and Right-Wing groups far apart on all issues, the very meaning of the dimension on which they differ may well be in flux as it comes to encompass a wider range of issues. That is, continuous “conflict extension” (Layman and Carsey, 2002) or “oil spill polarization” (DellaPosta, 2020) can over time cause the meaning of the dimension on which the war is fought to change.

4.2 Cause for concern?

Our results can be viewed as alarming. First off, most people—the Normative, and the Anti-Gay, the latter of whom appear to have had a knee-jerk reaction to that one issue—in our sample accepted the dominant majority position across all items. We interpreted this as suggesting that they had internalized ideology to an extent that they would not consider their positions as ideological, but as neutral. This result is consistent with the general narrative of declining rates of interest in party politics and other traditional forms of political engagement, especially among young adults. They may feel that politics is not relevant to them because they are outside of politics, seeing things objectively. The results also suggest that these people are not engaged in some other, new forms of political participation. For these people, any position, no matter how obscene or outrageous, may, when appearing dominant, become “apolitical” common-sense. Given that a functioning democracy requires actively engaged and informed citizens that hold political authorities accountable for their actions, then this unwillingness to express any political opinions could be interpreted as a threat to democracy. In a worst-case scenario, the Normative could adapt also to more authoritarian or fascist regimes, accepting any new regime as the “new normal”.

Also noteworthy is that almost two thirds of the Progressive were women, but only a fifth of the Right-Wing and less than a third of the Anti-gay. That is, the political cleavage is strongly bound up with a demographic gender cleavage. This is, of course, not news. Men have consistently outnumbered women as voters for populist far-right parties since their inception, and continue doing so (Mudde and Kaltwasser, 2017). On the other hand, women are more likely to vote for left-wing parties than men (Shorrocks, 2018).

Another demographic divide was that between non-German native speakers and native German speakers. The former were more likely to belong to the Normative or Anti-gay classes. These two classes were rather similar in their indifference to most issues. However, the Anti-gay were strongly against the rights of sexual minorities. This opposition to the rights of sexual minorities among non-German native speakers could help explain why the Right-Wing, who were extremely “Right” on all other issues, were notably average with regards to the rights of sexual minorities. Anti-migration attitudes are at the heart of why people vote for right-wing populist parties—these parties promise to protect the “native” culture against outsiders (e.g., Rydgren, 2007). Despite their traditionalist, conservative, and sometimes even fascists roots, some of these parties have made defending sexual equality against Islam one of their arguments against immigration—homosexuality is no longer seen as a threat to the family, but a part of the native

culture (e.g., Dudink, 2017). In the present German context, the populist far-right party Alternative für Deutschland (AfD) ran a poster campaign ahead of 2016 local elections that showed two gay men saying that Muslim immigrants were a threat to their “way of life”. The AfD has indeed succeeded in attracting some LGBTIQ* voters (Hunklinger and Ajanović, 2022).

The demographic cleavages between men and women, native and non-native German speakers, can further raise concerns with regards to the polarization of the political arena. If individuals sort themselves into political factions based on fixed identity categories, the actual policy content may become less important, for instance for voting decisions. Moreover, impermeable barriers between groups may be associated with more intergroup prejudice and conflict (Turner and Reynolds, 2001). Our results are consistent with results from other context, such as Brazil (Layton et al., 2021), in which the emergence of far-right politics has increased the importance of demographics for one’s politics.

4.3 Do progressives care about equality also in real life?

Prior research has been remarkably inconclusive with regards to associations between political attitudes and social behavior (except for overtly political behavior). Our results add to this literature. The Progressive group gave somewhat more than other groups in the Public Goods Game, although only the difference to the Anti-gay, which group gave the least, was statistically significant. This makes sense if one presumes, as we did, that the left is defined by believing in equality (recall that inequality aversion has been shown to be the strongest motivator of Public Goods Game giving; Ashley et al., 2010).

Our results speak to research that has sought to identify some psychological basis for adopting one ideology over another (e.g., concepts such as “authoritarian personality”, “social dominance orientation”, and “moral foundations” have been suggested to underlie political attitudes). That political attitudes were, even if weakly, aligned with social behavior, suggests that they could share some common cause rooted in individual differences. However, it could also be that one’s politics, adopted for whatever reason, influences one’s social behavior. Moreover, we need to acknowledge that one reason the associations between political attitudes and public goods game were arguably weaker than could have been expected is that inequality aversion is by no means the only motivator of Public Goods Game behavior; for instance, risk aversion (Teyssier, 2012) and fear of exploitation also play a role (De Cremer, 1999).

4.4 Conclusions

We set out to investigate how ideologically constrained are the preferences of the mass public, and whether there is some association between one’s political commitments and one’s actual social behavior. Given the staying power of these questions, it comes as no surprise that we cannot give clear-cut results. Somewhat more than a third of our participants—the people we labeled the Progressive and the Right-Wing—were very

ideologically constrained in the classic sense, with extreme and opposite attitudes with regards to almost everything. The exception being attitudes toward the rights of sexual minorities, which only the Anti-gay group strongly opposed. This group expressed intermediate views on all other issues, as did the Normative, who constituted the far largest group. These people would probably consider themselves apolitical, objective, or free of ideology. However, following Žižek (1994), we argue the opposite—it is those who believe themselves to have stepped out of ideology that are the most enslaved by ideology. With regards to social behavior, the Progressive gave most in a monetarily incentivized Public Goods Game, whereas the Right-Wing and Anti-gay gave less. This could be interpreted as suggesting that Progressive, also in real life, care about equality. However, the differences were very small, and mostly not statistically significant.

One important take-away of our study is our recommendation to research on political attitudes to start making more use of the person-centered approach. Given the context dependence of “what goes with what” and the huge variability between voters in terms of ideological constraint, it may not be fruitful to search for dimensions that universally structure political attitudes. Rather, groups of people who resemble each other with regards to those attitudes that are at the foreground of the political debate should be identified and investigated. This can lead to discoveries that would not be possible with a variable-centered approach, such as that whilst a third of participants are engaged in a “culture war”, the rest may be equally constrained by not taking a side in this war.

Data availability statement

The datasets presented in this study can be found in online repositories. The names of the repository/repositories and accession number(s) can be found below: The data and R scripts are available online at <https://osf.io/2jtqy/>.

Ethics statement

The authors declare that full review and approval by an Ethics Committee was not required according to the local guidelines. However, experiments run at the Laboratory for Experimental Economics Research must conform to the guidelines of the experimental economics society. Written informed consent was obtained from all participants. The studies were conducted in accordance with the local legislation and institutional requirements. The participants provided their written informed consent to participate in this study.

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Author contributions

J-EL: Conceptualization, Methodology, Writing – original draft, Writing – review & editing. SL: Conceptualization, Data curation, Methodology, Visualization, Writing – review & editing. GW: Conceptualization, Data curation, Funding acquisition, Investigation, Methodology, Project administration, Resources, Writing – review & editing.

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Conflict of interest

The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

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Supplementary material

The Supplementary Material for this article can be found online at: <https://www.frontiersin.org/articles/10.3389/frsps.2025.1467884/full#supplementary-material>

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