

Measuring National Identity with Conjoint Experiments Using the Case of Taiwan

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Abstract

How should scholars measure national identity? Conventional survey batteries, such as those used by the International Social Survey Programme, ask respondents to rate identity attributes independently. This approach produces ceiling effects and reveals nothing about how people weigh competing identity criteria against one another. We propose conjoint experiments as an alternative measurement strategy. Using original survey data from Taiwan ($n = 2,050$), we field two choice-based conjoint experiments: a simple binary design replicating the ISSP national identity battery, and a complex multi-level design with Taiwan-specific attributes. The conjoint approach reveals a multidimensional identity space in which respondents make trade-offs between ascriptive, civic, and voluntarist criteria, trade-offs that are invisible to standard batteries. To demonstrate the substantive payoff of this approach, we use the conjoint format to investigate a theoretically important question that Taiwan is especially well positioned to address: whether democratic institutions have become constitutive of national identity. Subgroup analysis by Taiwanese identity strength and liberal-democratic values reveals that strong Taiwanese identifiers and respondents committed to liberal democracy place significantly greater weight on democratic institutions as a criterion for national membership, weighing them against and above competing ascriptive criteria. These findings demonstrate that conjoint experiments can advance the measurement of national identity beyond the limitations of existing approaches while generating new evidence on the constitutive relationship between democracy and national identity.

Keywords: national identity, conjoint analysis, Taiwan, survey methodology, nationalism

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I Introduction

National identity is among the most consequential political phenomena of the modern era. It shapes the boundaries of political community, structures claims to sovereignty, and mediates the relationship between citizens and the state (Anderson, 1983; Gellner, 1983; Smith, 1991). Despite its centrality to political life, the measurement of national identity in survey research remains surprisingly rudimentary. The dominant approach, exemplified by the International Social Survey Programme's (ISSP) National Identity modules fielded in 1995, 2003, and 2013, asks respondents to rate a series of attributes (ancestry, birthplace, language, and so on) independently on importance scales (ISSP Research Group, 1998, 2012, 2015). This item-by-item measurement strategy has generated a vast comparative literature on national identity (Kunovich, 2009; Jones and Smith, 2001; Shulman, 2002), but it suffers from two fundamental limitations.

First, independent rating scales produce pronounced ceiling effects. When respondents evaluate criteria one at a time, most attributes receive high importance ratings, compressing the distribution and obscuring meaningful variation. If large majorities rate both ancestry and democratic participation as “very important” for national membership, researchers learn little about the relative priority respondents assign to these very different criteria. Second, and more fundamentally, item-by-item batteries cannot reveal trade-offs. National identity is widely understood as a multidimensional concept, a bundle of ascriptive, civic, and voluntarist criteria that people weigh differently (Kohn, 1944; Brubaker, 1992; Shulman, 2004; Bonikowski and DiMaggio, 2016). Yet the conventional measurement approach treats each dimension as separable, providing no information about how respondents adjudicate when identity criteria conflict.

This paper proposes conjoint experiments as an alternative strategy for measuring national identity. Conjoint analysis, increasingly common in political science for studying multidimensional preferences (Hainmueller, Hopkins and Yamamoto, 2014; Bansak et al., 2021), asks respondents to evaluate profiles that bundle multiple attributes simultaneously. By forcing respondents to make choices among profiles that vary across several identity dimensions at once, conjoint designs recover the relative weight respondents place on each attribute, including the trade-offs between them. The approach yields valid causal estimates of the marginal effect of each identity criterion on perceptions of national belonging (Hain-

mueller, Hopkins and Yamamoto, 2014; Leeper, Hobolt and Tilley, 2020) while also mitigating social desirability bias that may affect responses to direct identity questions (Horiuchi, Markovich and Yamamoto, 2022).

We demonstrate this measurement strategy using original survey data from Taiwan ($n = 2,050$), a case that is particularly well suited for this approach. Taiwan's national identity landscape is characterized by a dramatic, ongoing transformation. Over three decades, exclusive Taiwanese identification has risen from roughly 18% to over 60% of the population, while Chinese identification has declined to single digits (Election Study Center, National Chengchi University, 2024). This shift is inseparable from Taiwan's democratization, which has rendered the boundaries of national community a perpetual subject of political contestation (Wachman, 1994; Rigger, 2011). Taiwan thus offers both high variation in identity configurations and a theoretically significant setting in which to examine how democratic values relate to national identification (Ho, 2022*b*; Chen, 2013).

We field two choice-based conjoint experiments on the same nationally representative sample. The first (CBC #1) is a simple binary design that replicates the content of the ISSP National Identity battery in a conjoint format. While the battery asks respondents to rate each attribute independently, the conjoint forces trade-offs among the same criteria. The second (CBC #2) is a more complex multi-level design with nine Taiwan-specific attributes. This richer design exploits the conjoint format's capacity for multi-level attribute variation to map the identity space in greater detail.

A further advantage of the conjoint design is that it makes subgroup analysis theoretically productive. Because conjoint experiments recover the full trade-off structure, comparing subgroups reveals not just whether groups differ on individual items but whether they *weigh identity criteria differently relative to one another*. We exploit this capacity to investigate a question that Taiwan is especially well positioned to address: whether democratic institutions have become constitutive of national identity. This question has deep theoretical roots (Nodia, 1992; Greenfeld, 1992; Linz and Stepan, 1996), but it has rarely been examined at the individual level with a measurement approach capable of isolating the democratic criterion from competing identity dimensions. Taiwan's trajectory, in which democratization and nation-building have proceeded in tandem, generates a clear theoretical expectation: citizens with the strongest national

identification and those most committed to liberal-democratic values should treat democratic institutions as constitutive of national belonging, not merely as a preferred form of governance. We operationalize this expectation by comparing respondents along two dimensions that map directly onto the theory: Taiwanese identity strength (the intensity of national identification) and liberal-democratic values (the depth of commitment to democratic governance). The results confirm the theoretical prediction: democratic institutions emerge as a significantly more important criterion for national membership among strong Taiwanese identifiers and among respondents who hold liberal-democratic values. The constitutive relationship between democracy and national identity becomes visible because conjoint experiments allow us to observe how democratic attributes are weighed against competing criteria.

The paper proceeds as follows. We first discuss the theoretical foundations of national identity measurement, the limitations of existing approaches, and how conjoint experiments address them. We then present Taiwan as a case, detail our research design, and report our findings. We conclude by discussing the implications of the conjoint approach for the study of national identity and the relationship between democracy and national belonging.

2 National Identity as a Multidimensional Concept

2.1 Dimensions of National Identity

The scholarly study of national identity has long recognized its multidimensional character. Kohn (1944) introduced the foundational distinction between “Western” civic nationalism, rooted in individual choice, law, and rational association, and “Eastern” ethnic nationalism, grounded in descent, language, and cultural community. While subsequent scholars have complicated and criticized this East-West mapping as overly rigid (Brubaker, 1992, 1996; Calhoun, 1993; Mylonas and Tudor, 2023), the underlying insight that national identity comprises analytically distinct types of criteria has remained central to the field.

Smith (1991) identified five elements of national identity: a historic territory, common myths and historical memories, a mass public culture, common legal rights and duties, and a common economy (see also Connor, 1994, on the ethnic dimension). Shulman (2002) proposed a tripartite classification of civic, eth-

nic, and cultural dimensions that maps empirical variation more accurately than the binary civic/ethnic framework. Building on this work, and treating identity as a measurable variable with specifiable content (Abdelal et al., 2006), Bonikowski and DiMaggio (2016) used latent class analysis to identify four “varieties” of American nationalism, demonstrating that national identity configurations vary systematically within populations, not just across countries.

For the purposes of measurement, we follow Shulman (2002) and Wright, Citrin and Wand (2012) in distinguishing three broad types of identity criteria. *Ascriptive* criteria are those a person is born with or into: ancestry, ethnicity, birthplace, and native language. *Civic* criteria concern formal membership in the political community: citizenship, respect for the political system, and residence. *Voluntarist* criteria reflect subjective identification and cultural engagement: feeling part of the national community and understanding the nation’s history and traditions (see Habermas, 1996; Kymlicka, 2001, on voluntarist conceptions). The key theoretical point is that these dimensions are not merely additive. People weigh them differently, and the relative weight assigned to each reveals something fundamental about the *kind* of national identity a person holds. We validate this tripartite classification empirically using exploratory factor analysis (see Appendix B).

The empirical study of these dimensions has produced an extensive comparative literature. Using ISSP data, Kunovich (2009) showed that national identification is associated with both exclusionary attitudes and prosocial orientations, depending on the content of the identity. Jones and Smith (2001) found that civic and ethnic components of identity load on distinct factors and are predicted by different individual and country-level variables. Theiss-Morse (2009) demonstrated that the boundaries of national identity, specifically who “counts” as American, are consequential for political attitudes and behavior. Yet all of this work relies on the same item-by-item battery approach, which limits what can be learned about the relative weight of identity criteria and the trade-offs among them.

2.2 Democracy and National Identity

A large theoretical literature argues that democracy and nationalism are more deeply intertwined than is often appreciated. Nodia (1992) contended that nationalism provides the “we” that makes democratic

self-governance possible: democracy requires a bounded political community, and nationalism supplies the principle of boundedness. Greenfeld (1992) traced the historical co-evolution of nationalism and democracy, showing that the idea of popular sovereignty emerged alongside the idea of the nation as a community of equal citizens. Linz and Stepan (1996) argued that democratic consolidation requires agreement on the boundaries of the political community, what they call “stateness,” before other democratic processes can function.

If democratic institutions are constitutive of national identity for some citizens, this has profound implications for how we understand the relationship between regime type and national belonging. In democratizing or newly democratic societies, citizens who internalize democratic values may come to regard those institutions as defining features of their national community, integral to *who they are* as a nation. This possibility complicates the influential critique of nationalism as inherently illiberal or exclusionary (Snyder, 2000; Mansfield and Snyder, 2005; Wimmer, 2006; Hechter, 2000). If democratic commitment can become an entry criterion for national belonging, then national identity may serve as a *vehicle* for liberal values rather than a threat to them. Hur (2022) provides evidence for precisely this mechanism in East Asia, showing that national attachments can generate democratic civic duty rather than undermine it: the sense of obligation to be a good citizen emerges from, rather than in spite of, national identification. The “thickness” of national identity, the extent to which it incorporates specific institutional and value commitments, varies across and within societies (Mylonas and Tudor, 2023).

Taiwan offers perhaps the clearest contemporary illustration of this dynamic. As the island democratized beginning in the late 1980s, a distinctly Taiwanese national identity emerged, defined less by ethnicity or geography than by commitment to democratic governance (Wachman, 1994; Rigger, 2011). The KMT’s authoritarian Chinese nationalist framework had suppressed alternative identity claims for decades; democratization opened space for a new national self-understanding centered on Taiwan’s political distinctiveness from authoritarian China (Ho, 2022*b*; Chu and Lin, 2001). By the 2000s, survey data consistently showed that Taiwanese citizens who identified most strongly with Taiwan also placed the greatest value on democratic institutions as markers of national community (Ho, 2022*a*; Chen, 2013). This process of democratic identity formation has been reinforced by cross-strait tensions: as the PRC has inten-

sified pressure on Taiwan, democratic governance has become a boundary marker that distinguishes the Taiwanese national community from the mainland (Wang, 2017; Wang et al., 2025). Taiwan thus exemplifies the theoretical proposition that democratic institutions can become constitutive of national identity, internalized as part of what defines the nation.

Yet testing this proposition rigorously requires a measurement strategy capable of isolating the democratic criterion from other identity dimensions. If we ask respondents separately whether ancestry and democratic participation are important for national membership, and both receive high ratings, we cannot determine whether democratic values are constitutive of national identity or merely correlated with it. We need a measurement approach that reveals how democratic criteria are weighed *against* competing identity criteria, the information that conventional batteries cannot provide.

2.3 Limitations of Existing Measurement Approaches

The ISSP National Identity module has been the workhorse instrument for comparative research on national identity since 1995. The module asks respondents: “Some people say that the following things are important for being truly [NATIONALITY]. Others say they are not important. How important do you think each of the following is?” Respondents then rate a series of attributes on a four-point scale from “very important” to “not important at all.”

This measurement approach has three key limitations. First, it produces *ceiling effects*. When respondents evaluate attributes independently, social desirability and acquiescence bias push ratings upward (Krosnick, 1991; Mutz, 2011; Sniderman and Grob, 1996). Most respondents rate most attributes as important, leaving researchers with truncated distributions and limited variation. The four-point response scale exacerbates this problem: with only four options, the top two categories (“very important” and “fairly important”) typically capture the vast majority of responses, leaving little room for differentiation.

Second, the battery provides *no information about trade-offs*. If a respondent rates both ancestry and democratic participation as “very important,” the researcher cannot determine which criterion the respondent would prioritize if forced to choose. This is not merely a technical limitation; it obscures precisely the information that is theoretically most interesting. Theories of national identity are fun-

damentally about the *relative* weight of different criteria: whether a nation defines itself by blood, by values, by institutions, or by some combination thereof (Kohn, 1944; Brubaker, 1992). A measurement instrument that cannot recover relative weights cannot adjudicate among these theories.

Third, the item-by-item format treats national identity as *decomposable* into independent dimensions, when in fact the dimensions are interdependent. The weight placed on one criterion is meaningfully related to the weight placed on others. A respondent who places heavy weight on ancestry may do so precisely because she places less weight on political values, and vice versa. By evaluating each criterion in isolation, the battery loses this relational information entirely. These measurement limitations have broader consequences for how scholars assess the effects of nationalism (vom Hau et al., 2023) and the contested boundaries of national membership (Koopmans and Statham, 1999).

2.4 The Conjoint Solution

Conjoint analysis addresses each of these limitations. Developed in marketing research and formalized for causal inference in political science by Hainmueller, Hopkins and Yamamoto (2014), conjoint experiments present respondents with pairs of profiles that vary randomly across multiple attributes. Respondents choose which profile they prefer or rate each profile independently. Because attributes are randomized, the marginal effect of each attribute level on the probability of selection, the average marginal component effect (AMCE), is identified nonparametrically.

Applied to national identity, conjoint experiments present respondents with pairs of hypothetical persons who vary across identity-relevant attributes. Respondents judge which person is “more [NATIONALITY].” This design produces three advantages over conventional batteries. First, by requiring respondents to weigh multiple attributes simultaneously, it *eliminates ceiling effects*: respondents cannot simply rate everything as important, because the choice format forces discrimination. Second, it directly *reveals trade-offs*: the AMCE for each attribute estimates its marginal contribution to perceived national belonging, *holding other attributes constant*. Third, by presenting complete profiles rather than isolated items, it preserves the *multidimensional* character of national identity in the measurement instrument itself, treating identity as a structured combination of content and contestation (Abdelal et al., 2006).

An additional advantage, demonstrated by Horiuchi, Markovich and Yamamoto (2022), is that conjoint experiments can *mitigate social desirability bias*. When respondents evaluate complete profiles rather than individual attributes, the multi-attribute structure makes it less transparent which attribute is being “tested,” reducing the tendency to provide socially desirable responses. This is particularly relevant for sensitive dimensions of national identity such as ethnicity and ancestry, where direct questions may elicit normatively acceptable rather than genuine responses. The conjoint format does not eliminate social desirability concerns entirely, but it provides a less reactive measurement environment than conventional batteries.

Marginal means provide an additional quantity of interest. Unlike AMCEs, which are inherently relative to a reference category, marginal means estimate the absolute probability that a profile possessing a given attribute level is chosen, averaged over all other attributes (Leeper, Hobolt and Tilley, 2020). This makes them particularly useful for subgroup comparisons, where differences in marginal means across groups estimate the extent to which a given attribute level is valued differently by different types of respondents.

3 The Case of Taiwan

Taiwan offers a near-ideal setting for deploying conjoint experiments to study national identity. Three features of the Taiwan case make it particularly appropriate.

First, Taiwan exhibits unusually high variation in national identity configurations. The island’s complex history, spanning Japanese colonization (1895–1945), Kuomintang (KMT) authoritarian rule under a Chinese nationalist framework (1945–1987), and democratic transition (1987–present), has produced a population in which ascriptive, civic, and voluntarist criteria for national membership coexist in tension. Residents include descendants of Hoklo and Hakka settlers who arrived centuries ago, mainlanders (*waishengren*) who came with the KMT after 1949, and indigenous Austronesian peoples with claims predating all Chinese settlement. This diversity means that questions about who “truly” belongs to the national community are genuinely contested, not merely academic. Scholars have traced both ethnic and

civic paths in the formation of Taiwanese nationalism (Shen and Wu, 2008; Song, 2009), while identity in Taiwan has also been shaped by the cultural politics of recognition (Tu, 1996; Simon, 2007; Kaeding, 2011).

Second, Taiwan's national identity has undergone a dramatic transformation over the past three decades, directly linked to democratization. Data from the Election Study Center at National Chengchi University (NCCU) document this shift with remarkable clarity. In 1992, when Taiwan's democratic transition was just beginning, only 17.6% of respondents identified exclusively as "Taiwanese," while 25.5% identified as "Chinese" and 46.4% as "both Taiwanese and Chinese." By 2024, exclusive Taiwanese identification had risen to 63.3%, Chinese identification had declined to 2.4%, and dual identification stood at 29.7% (Election Study Center, National Chengchi University, 2024). This transformation has occurred alongside, and partly because of, Taiwan's consolidation of democratic institutions.

As Wachman (1994) argued, democratization opened space for a distinctly Taiwanese national identity to emerge from under the KMT's Chinese nationalist framework. The KMT had governed Taiwan under martial law from 1949 to 1987, promoting a Chinese national identity centered on the Republic of China's claim to represent all of China. The lifting of martial law, the first democratic presidential election in 1996, and the subsequent alternation of power between parties transformed the political landscape (Chu and Lin, 2001; Ho, 2022*b*). Crucially, the 1999 high school curriculum reform introduced "Getting to Know Taiwan" courses emphasizing the island's multiethnic history and distinctiveness from the mainland, socializing a generation into a specifically Taiwanese national narrative (Schubert, 2004; Chang, 2004; Chen, Lin and Yang, 2023). Public education thus served as an explicit instrument of nation-building, consistent with the mechanisms described by Weber (1976).

More recent work has shown that this Taiwanese identity is increasingly defined less by ethnic or linguistic criteria than by commitment to democratic governance and the political institutions that distinguish Taiwan from mainland China (Rigger, 2011; Ho, 2022*a*; Chen, 2013). Wang (2017) found that Beijing's carrot-and-stick policies toward Taiwan have failed to reverse the growth of Taiwanese identity, suggesting that the identity has become self-reinforcing and resistant to external pressure, though recent work documents some fluctuation in the trend (Wang et al., 2025). Survey data from 2014 suggest that

fewer than 8% of Taiwanese define national belonging by “common blood,” while roughly 39% emphasize identification with “Taiwanese culture and history” and 45% emphasize “living and working” in Taiwan, indicating a predominantly civic and voluntarist conception of the national community (consistent with Schubert, 2004; Corcuff, 2002).

Third, Taiwan’s cross-strait relationship with China makes the content of national identity politically consequential in ways that are immediately legible. The People’s Republic of China claims sovereignty over Taiwan and has not renounced the use of force to achieve unification. In this context, how Taiwanese citizens define the boundaries of national community, whether by ancestry, political values, cultural practice, or subjective feeling, has direct implications for the island’s political future. A national identity defined primarily by democratic values implies a community that is categorically distinct from authoritarian China; one defined primarily by ethnic Han ancestry implies potential compatibility with a Chinese national framework. The stakes of national identity measurement in Taiwan are thus unusually high, and the limitations of conventional batteries are correspondingly costly.

These three features make Taiwan not only a good test case for the conjoint method but also a theoretically important case for understanding the relationship between democracy and national identity. If democratic institutions have become constitutive of national identity anywhere, Taiwan, where democratization and nation-building have proceeded in tandem against the backdrop of an authoritarian rival, is where we should expect to find it. The conjoint design allows us to test this proposition directly by observing whether democratic criteria are weighed more heavily by those with the strongest national identification. Taiwan is not the only case where conjoint experiments could be applied to national identity; the approach is portable to any national context. But Taiwan’s combination of high identity variation, ongoing identity transformation, democratic consolidation, and geopolitical salience makes it an ideal demonstration case.

4 Research Design

4.1 Sample and Data Collection

We fielded an original online survey of 2,050 respondents in Taiwan between May and June 2024 through the Qualtrics panel platform. The sample was quota-matched to the Taiwanese adult population on age, gender, and region. The survey included three components: (1) a conventional national identity battery modeled on the ISSP, (2) a simple binary conjoint experiment (CBC #1), and (3) a complex multi-level conjoint experiment (CBC #2). Respondents completed all three components in sequence, along with demographic and attitudinal questions. Each respondent evaluated six forced-choice tasks per conjoint experiment, for a total of twelve conjoint tasks.

The conjoint task framing asked respondents to evaluate pairs of hypothetical persons: “Below you will see the profiles of two people and their characteristics. Please read each person’s profile carefully and choose who among the two you think is most truly a Taiwanese national.” Both the order of attributes within profiles and the assignment of attribute levels were fully randomized, satisfying the assumptions required for nonparametric identification of AMCEs (Hainmueller, Hopkins and Yamamoto, 2014). After a designated forced-choice task, respondents completed an open-text manipulation check explaining why they chose the profile they did, providing qualitative evidence that respondents were engaging with the attributes as intended.

4.2 Observational Battery

The survey included a nine-item battery based on the ISSP National Identity module. Respondents rated the importance of nine criteria for “being truly Taiwanese”: Han ancestry, being born in Taiwan, ROC citizenship, speaking Mandarin, speaking Taiwanese, feeling Taiwanese, respecting the political system, knowing history and traditions, and having lived in Taiwan. Responses were recorded on a four-point scale (“very important” to “not at all important”).

We classify these items into three dimensions: ascriptive, civic, and voluntarist. This classification is informed by exploratory factor analysis with oblimin rotation, which confirms that the nine items clus-

ter into three empirically distinguishable groups (see Appendix B for full factor loadings). The ascriptive dimension includes Han ancestry, speaking Mandarin, speaking Taiwanese, and knowing history and traditions; the civic dimension includes being born in Taiwan, ROC citizenship, and residence; the voluntarist dimension includes feeling Taiwanese and respecting the political system. Two items, being born in Taiwan and knowing history and traditions, exhibit cross-loadings across factors, consistent with their conceptual proximity to multiple dimensions. We retain them in their primary factor groupings but flag them accordingly.

4.3 CBC #1: Binary Design

The first conjoint experiment replicates the ISSP battery content in a conjoint format. Each task presents two hypothetical persons who vary across eight binary attributes: feeling (“feels Taiwanese” vs. “doesn’t feel Taiwanese”), ancestry (“ethnic Han” vs. “non-ethnic Han”), citizenship (“ROC citizen” vs. “not an ROC citizen”), language (“speaks Mandarin” vs. “doesn’t speak Mandarin”), origin (“born in Taiwan” vs. “not born in Taiwan”), residence (“lived most of life in Taiwan” vs. “lived most of life outside Taiwan”), political system (“respects Taiwan’s political system” vs. “shows little regard for system”), and tradition (“understands Taiwan’s history” vs. “doesn’t know much about history”). All attributes are fully randomized. Respondents indicate which person they consider “more Taiwanese.”

This design enables direct comparison with the observational battery. While the battery and the binary conjoint cover overlapping content, they are not identical: the battery includes nine items while CBC #1 uses eight binary attributes, and the response formats differ fundamentally. The battery elicits independent importance ratings; the conjoint forces trade-offs.

4.4 CBC #2: Multi-Level Design

The second conjoint experiment uses a more elaborate design with nine attributes, each having two to four levels. Table 1 summarizes the attributes, their levels, and the rationale for each attribute’s inclusion.

| Attribute | Levels | Rationale |
|------------------|--|--|
| Ancestry | Han person; Indigenous person; Non-Han person (ref.) | Captures ethnic variation in a majority-Han society where indigenous peoples and immigrant minorities challenge purely ethnic definitions of national belonging. |
| Origin | Taiwan (ref.); China; Southeast Asia | Distinguishes birthplace categories with distinct political and social valences in Taiwan’s migration landscape, where Chinese and Southeast Asian origins carry different implications for perceived belonging. |
| Language | Mandarin and Taiwanese; Mandarin only; Cannot speak Mandarin (ref.) | Tests the salience of linguistic markers, including bilingualism, as a boundary of national community. Taiwanese language proficiency signals local rootedness. |
| Legal Status | ROC citizen; Permanent resident; Short-term resident (ref.) | Measures the weight of formal legal membership and duration of legal ties relative to other identity criteria. |
| Residence | Entire life; 15 years; 7 years or less (ref.) | Assesses whether duration of residence serves as a proxy for commitment to and integration into the national community. |
| Sentiment | Identifies as Taiwanese; Both Taiwanese and Chinese; Chinese; Neither (ref.) | Tests subjective national identification, including the politically central dual identity category that characterizes roughly 30% of the population. |
| Politics | Supports democracy; Supports more govt control; No opinion (ref.) | Directly tests whether democratic political orientation functions as a criterion for national belonging, distinguishing democratic support from authoritarian preference and political apathy. |
| Culture | Participates in local religion; Follows Chinese traditions; Personal matter (ref.) | Distinguishes local Taiwanese cultural practice (temple festivals, folk religion) from Chinese-origin traditions to capture cultural boundary-drawing. |
| Civicness | Volunteers / attends meetings; Stays home / meets friends (ref.) | Tests whether active civic participation in community organizations and public meetings matters for perceived national membership. |

Table 1: CBC #2 attributes, levels, and design rationale.

This design captures Taiwan-specific nuances absent from the ISSP battery. The origin attribute distinguishes Taiwan, China, and Southeast Asia; the sentiment attribute includes the “both Taiwanese and

Chinese” dual identity that is central to Taiwan’s identity politics; the political attribute distinguishes democratic support from authoritarian preference and political apathy; and the culture attribute separates local Taiwanese practices from Chinese-origin traditions.

4.5 Estimation Strategy

We estimate average marginal component effects (AMCEs) and marginal means using the `cregg` package for R (Leeper, 2020; Hainmueller, Hopkins and Yamamoto, 2014). AMCEs estimate the causal effect of each attribute level on the probability of being selected as “more Taiwanese,” relative to the reference category, averaged over the joint distribution of all other attributes. As Bansak et al. (2023) clarify in response to concerns raised by Abramson, Kocak and Magazinnik (2022), AMCEs estimate average causal effects on choice probabilities, not the preferences of a majority; they remain the appropriate quantity for evaluating which attributes causally affect choices in conjoint designs. Marginal means estimate the unconditional probability that a profile with a given attribute level is selected, averaged over all other attributes (Leeper, Hobolt and Tilley, 2020). We report both AMCEs and marginal means throughout, as the latter provide a reference-category-free complement that is particularly useful for subgroup comparisons. We report dual confidence intervals (thick bars for 90% and thin bars for 95%) to allow readers to assess statistical significance at both conventional thresholds.

Conjoint estimates may be attenuated by measurement error arising from inattentive or inconsistent responding (Clayton et al., 2023). We estimate intra-respondent reliability (IRR) from our data using the extrapolation method proposed by Clayton et al. (2023): we compare choices across task pairs within each respondent, compute agreement rates as a function of the number of attributes that differ between paired tasks, and extrapolate to zero differences via weighted least squares. The resulting IRR estimate allows us to compute bias-corrected AMCEs and marginal means, which we report alongside uncorrected estimates in Appendix E.

For subgroup analysis, we estimate conditional marginal means and differences in marginal means by two moderating variables, following the approach developed by Leeper, Hobolt and Tilley (2020). For subgroup comparisons, differences in marginal means avoid the reference-category dependence that

makes conditional AMCEs potentially misleading (Leeper, Hobolt and Tilley, 2020). Conditional marginal means estimate the probability that a profile with a given attribute level is chosen, separately for each subgroup. Differences in marginal means test whether a given attribute level has a statistically distinguishable effect across subgroups. The conjoint design is particularly well suited to this kind of analysis because the randomization of attribute levels ensures that subgroup comparisons are identified even when subgroups differ on observables (Leeper, Hobolt and Tilley, 2020).

Our two moderating variables are Taiwanese identity strength and liberal-democratic values. For Taiwanese identity strength, respondents reported their subjective Taiwanese identity on a 0–10 slider. We dichotomize this variable at the 75th percentile, which in our sample corresponds to a score of 10 (the maximum). Respondents scoring at the 75th percentile or above are classified as “Strong Taiwanese ID” and those below as “Weak Taiwanese ID.” Approximately 56% of the sample falls in the strong category, reflecting the predominance of strong Taiwanese identification in the contemporary population. The full distribution is reported in Appendix C.

For liberal-democratic values, we construct an 11-item index from a battery of questions about democratic governance, including items on gender equality, freedom of expression, judicial independence, secular governance, and checks on government power. Two items are inverse-coded, and the total is inverted so that higher scores indicate stronger liberal-democratic values. We dichotomize respondents at the 75th percentile: those scoring at or above the 75th percentile are classified as “High lib-dem values” and those below as “Low lib-dem values.” Using the same percentile threshold for both moderators ensures consistency in the subgroup construction and avoids discarding observations from the middle of either distribution.

5 Results

5.1 Observational Battery and CBC #1: From Ratings to Trade-offs

We begin by comparing the observational battery with the binary conjoint (CBC #1), which cover overlapping identity criteria in different measurement formats. This comparison reveals both the consistency

and the added value of the conjoint approach.

Figure 1 presents the results of the conventional national identity battery. For each of the nine items, we report the percentage of respondents rating the criterion as “very” or “quite” important for being truly Taiwanese. Items are colored by their factor-analytic classification (ascriptive, civic, or voluntarist; see Appendix B).

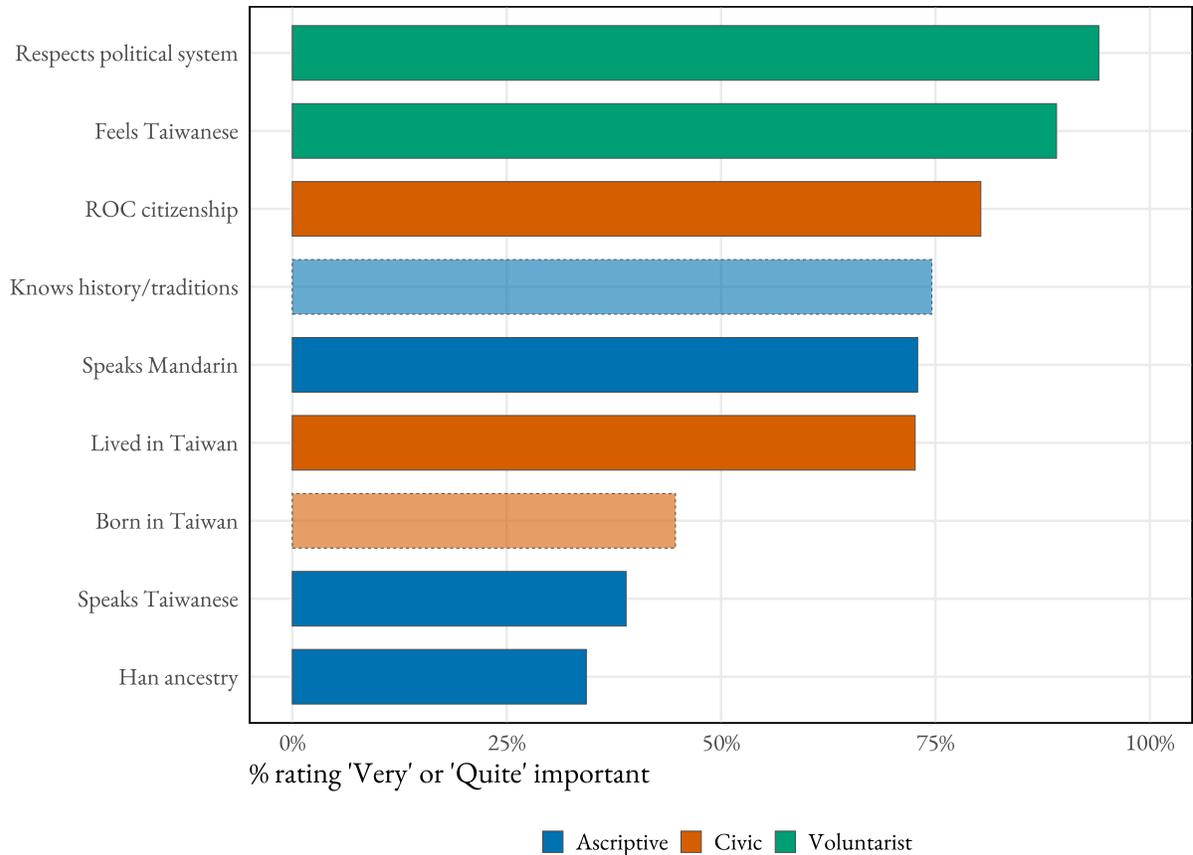


Figure 1: Observational national identity battery. Bars show the percentage of respondents rating each criterion as “very” or “quite” important for being truly Taiwanese. Items are colored by dimension: ascriptive (blue), civic (orange), and voluntarist (green), following the tripartite classification in Shulman (2002) and Wright, Citrin and Wand (2012), validated by our factor analysis (Appendix B). Cross-loading items are shown with lighter shading and dashed borders: “born in Taiwan” cross-loads on both the civic and ascriptive factors, and “knows history/traditions” cross-loads on the ascriptive and voluntarist factors. $n = 2,050$.

The battery results illustrate both the strengths and the limits of conventional measurement. The battery correctly identifies the broad hierarchy of identity criteria: voluntarist and civic items such as “feels

Taiwanese,” “respects political system,” and “lived in Taiwan” receive the highest importance ratings, while ascriptive items such as “Han ancestry” and “speaks Taiwanese” receive somewhat lower ratings. This ranking is informative: it suggests that Taiwanese respondents view civic and voluntarist criteria as more important than ascriptive ones even when evaluating each criterion independently. These are genuine signals, not noise. However, the overall distribution is compressed. The difference between the highest-rated and lowest-rated items is modest, and the battery provides no information about which criteria respondents would prioritize when they conflict. The battery tells us, for example, that “respects political system” is rated highly, but it cannot reveal what “respecting the political system” actually means to respondents: does it mean supporting democracy, accepting government authority, or simply having a political opinion? The multi-level conjoint (CBC #2) will address this limitation directly.

Figure 2 presents the AMCEs from CBC #1, the binary conjoint that covers the same identity criteria. The conjoint confirms the battery’s broad ranking while adding important information. Feeling Taiwanese, respecting Taiwan’s political system, and having ROC citizenship produce the largest AMCEs, consistent with the battery’s finding that voluntarist and civic criteria are rated most important. Ancestry and language show smaller effects, again consistent with the battery.

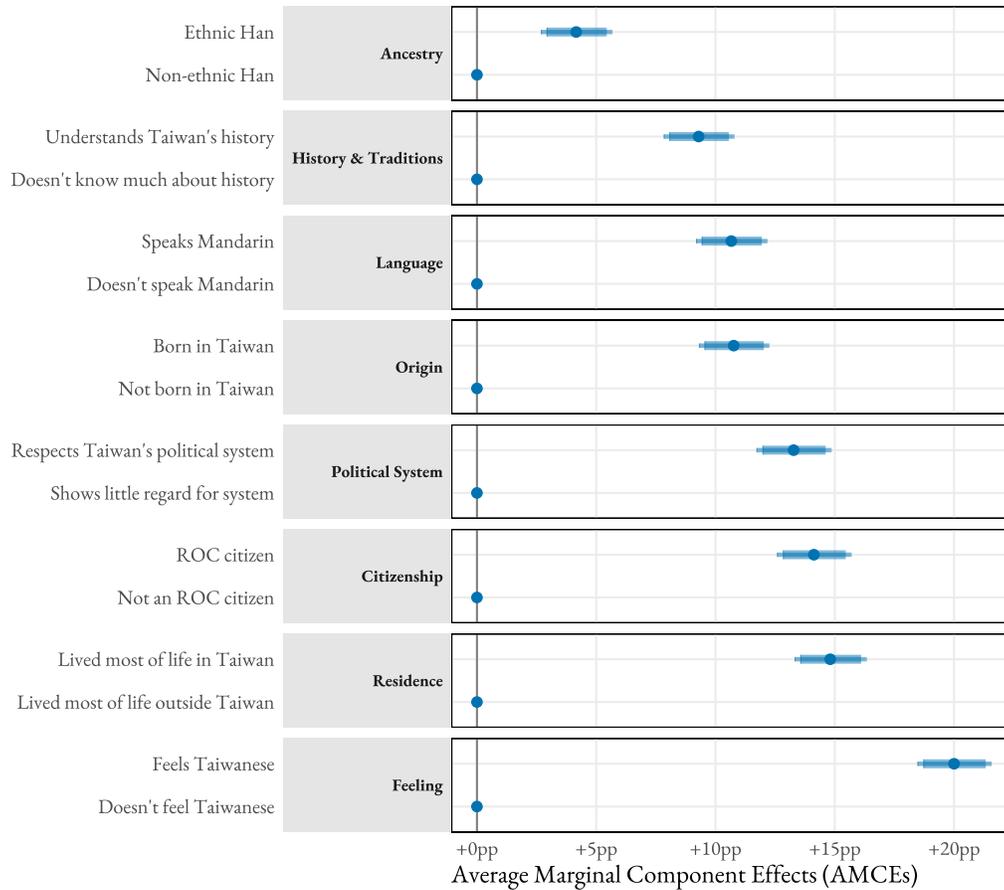


Figure 2: CBC #1: Average marginal component effects (AMCEs) for eight binary attributes. Points show estimated AMCEs with dual confidence intervals (thick: 90%; thin: 95%). Attributes ordered by effect magnitude. Reference categories are the “absence” or “weaker” framing for each attribute. $n = 2,050$, 6 tasks per respondent.

The consistency between the two approaches is itself a useful finding: it suggests that the conjoint design is not producing a fundamentally different picture but rather a sharper one. Where the battery tells us that most attributes matter, the conjoint quantifies *how much* each matters relative to the others. This is the kind of information theories of national identity require. The conjoint also reveals the magnitude of trade-offs. For instance, the AMCE for respecting Taiwan’s political system is substantially larger than the AMCE for ethnic Han ancestry, suggesting that respondents who are forced to choose between a person of non-Han ancestry who respects the political system and a person of Han ancestry who does not would favor the former. This kind of trade-off information is unavailable from any item-by-item battery.

At the same time, we should not overstate the difference between the two approaches. The battery does successfully distinguish more important from less important criteria; the conjoint sharpens this distinction rather than overturning it. The value of the conjoint lies not in contradicting the observational data but in resolving the ambiguity that compressed rating scales leave behind. What the battery and CBC #1 together cannot do, however, is unpack the substantive content of broad criteria like “political system” or “national sentiment.” This is precisely where the multi-level design of CBC #2 becomes essential.

5.2 CBC #2: The Multi-Level Identity Space

The multi-level conjoint (CBC #2) provides a more detailed map of Taiwan’s national identity space, moving beyond binary contrasts to capture the richer variation that characterizes real-world identity debates. Crucially, it unpacks the broad criteria that the battery and CBC #1 measured as single items. Where the battery asks whether “respecting the political system” matters for national belonging, CBC #2 distinguishes three political orientations: supporting Taiwan’s democratic system, preferring more government control, and having no political opinion. Where the battery asks whether “feeling Taiwanese” matters, CBC #2 separates four types of national sentiment: exclusive Taiwanese, dual Taiwanese-Chinese, exclusive Chinese, and no national identification. This multi-level structure allows us to identify which specific configuration of each criterion drives perceptions of national belonging. Figure 3 presents AMCEs and marginal means for all nine attributes. AMCEs reveal the relative effect of each level compared to its reference category, while marginal means estimate the absolute probability that a profile with a given attribute is chosen.

Several findings emerge from this richer design. Among the sentiment attribute levels, identifying as Taiwanese produces the largest positive AMCE, while identifying as Chinese produces a substantial negative effect. Identifying as “both Taiwanese and Chinese,” the dual identity held by roughly 30% of the population, occupies an intermediate position but still yields a positive AMCE relative to the reference category (no national identification). This confirms that national sentiment is the single most consequential identity criterion, and that the content of that sentiment matters: Taiwanese identification is

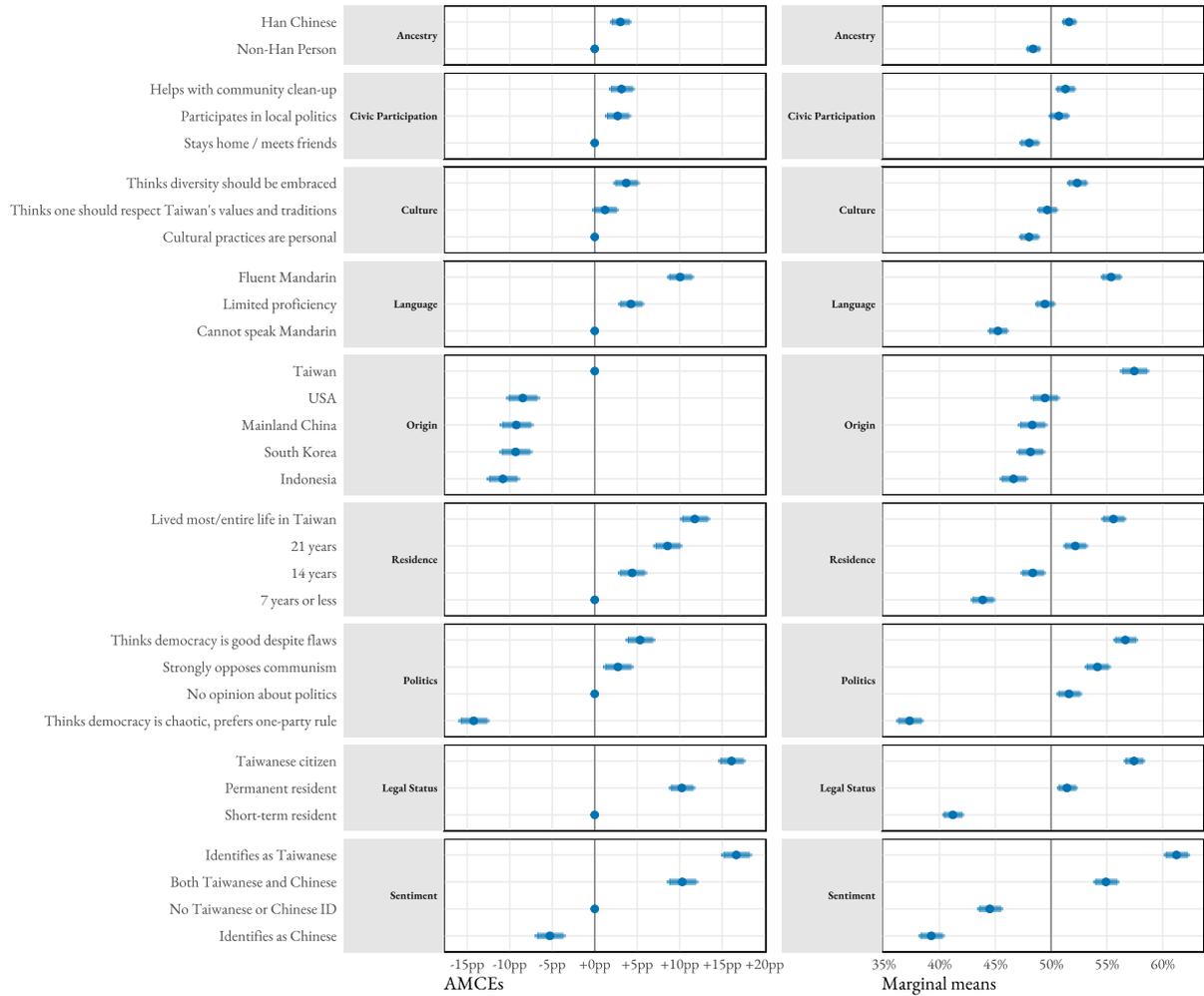


Figure 3: CBC #2: AMCEs (left) and marginal means (right) for all nine attributes. Points show estimates with dual confidence intervals (thick: 90%; thin: 95%). Attributes and levels ordered by effect magnitude. $n = 2,050$.

rewarded, Chinese identification is penalized, and dual identification falls in between.

Among the political attributes, supporting Taiwan’s democratic system produces a large positive AMCE, while preferring more government control produces a negative effect. Democratic political orientation is among the strongest predictors of perceived national belonging, rivaling subjective national sentiment in magnitude. Profiles described as supporting democracy are chosen as “more Taiwanese” at rates substantially above 50%, while profiles favoring greater government control, a framing that evokes authoritarian governance, are chosen at rates well below 50%. The reference category (“has no opinion about politics”) falls near the midpoint, suggesting that political apathy is neutral for perceived national membership but active anti-democratic preferences are disqualifying.

Civic participation (volunteering in community and attending civic meetings), cultural engagement (participating in local Taiwanese religious activities), and language (speaking both Mandarin and Taiwanese) all produce positive effects, though smaller in magnitude than sentiment and political orientation. These secondary attributes are nevertheless informative: civic engagement and cultural participation both matter for perceived national membership, suggesting that Taiwanese national identity rewards active participation in community life, not merely passive possession of demographic characteristics.

Ancestry and origin show effects that complicate simple ethnic or nativist narratives. While Han ancestry and Taiwanese origin produce positive effects relative to their reference categories, these effects are modest compared to civic and voluntarist criteria. A person of non-Han ancestry who feels Taiwanese and supports democracy is judged “more Taiwanese” than a person of Han ancestry who lacks these civic and voluntarist attributes. This is a significant finding for a society that is ethnically majority Han: ethnic criteria exist as identity markers but are clearly secondary to political and voluntarist criteria in determining perceived national belonging.

5.3 Subgroup Analysis: Democracy and National Identity

The preceding results establish the overall structure of Taiwan’s national identity space. We now turn to subgroup analysis to examine whether different types of respondents weigh identity criteria differently. This is where the conjoint design proves especially valuable, and where Taiwan’s characteristics as a case

become most relevant.

Conventional batteries can show that different groups rate different criteria as important, but they cannot reveal whether groups *trade off* criteria differently. The conjoint format can. By estimating conditional marginal means for each subgroup separately, we can observe not only which criteria each group values but how those criteria are weighed against competing alternatives. Differences in marginal means between subgroups then test whether these trade-off patterns diverge significantly.

We focus on two moderating variables that speak directly to the relationship between democracy and national identity: Taiwanese identity strength and liberal-democratic values. Taiwan's position as a consolidated democracy in the shadow of an authoritarian rival makes it a particularly informative case for this analysis. If democratic institutions have become constitutive of national identity, as theorized by Nodia (1992) and Greenfeld (1992), we should observe that those with the strongest national identification and those with the deepest commitment to democratic values assign greater weight to democratic criteria for national membership. The conjoint design allows us to test this directly.

5.3.1 Identity Strength

Figure 4 presents conditional marginal means (left panel) and differences in marginal means (right panel) by Taiwanese identity strength. Respondents scoring at or above the 75th percentile on the identity strength slider (a score of 10 out of 10, approximately 56% of the sample) are classified as strong identifiers.

The results reveal substantively important heterogeneity. For most attributes, strong and weak identifiers show similar preferences: both groups prefer profiles that speak Mandarin and Taiwanese, have lived in Taiwan for their entire lives, and hold ROC citizenship. These “consensus” attributes reflect widely shared criteria for national membership that do not vary by identity strength. But on several politically salient attributes, the groups diverge sharply.

Strong Taiwanese identifiers place significantly greater weight on “identifies as Taiwanese” relative to weak identifiers, and significantly less weight on “identifies as Chinese.” The multi-level sentiment attribute is especially revealing here: unlike the standard NCCU categorical question, which records only whether a respondent identifies as Taiwanese, Chinese, or both, the conjoint design shows how

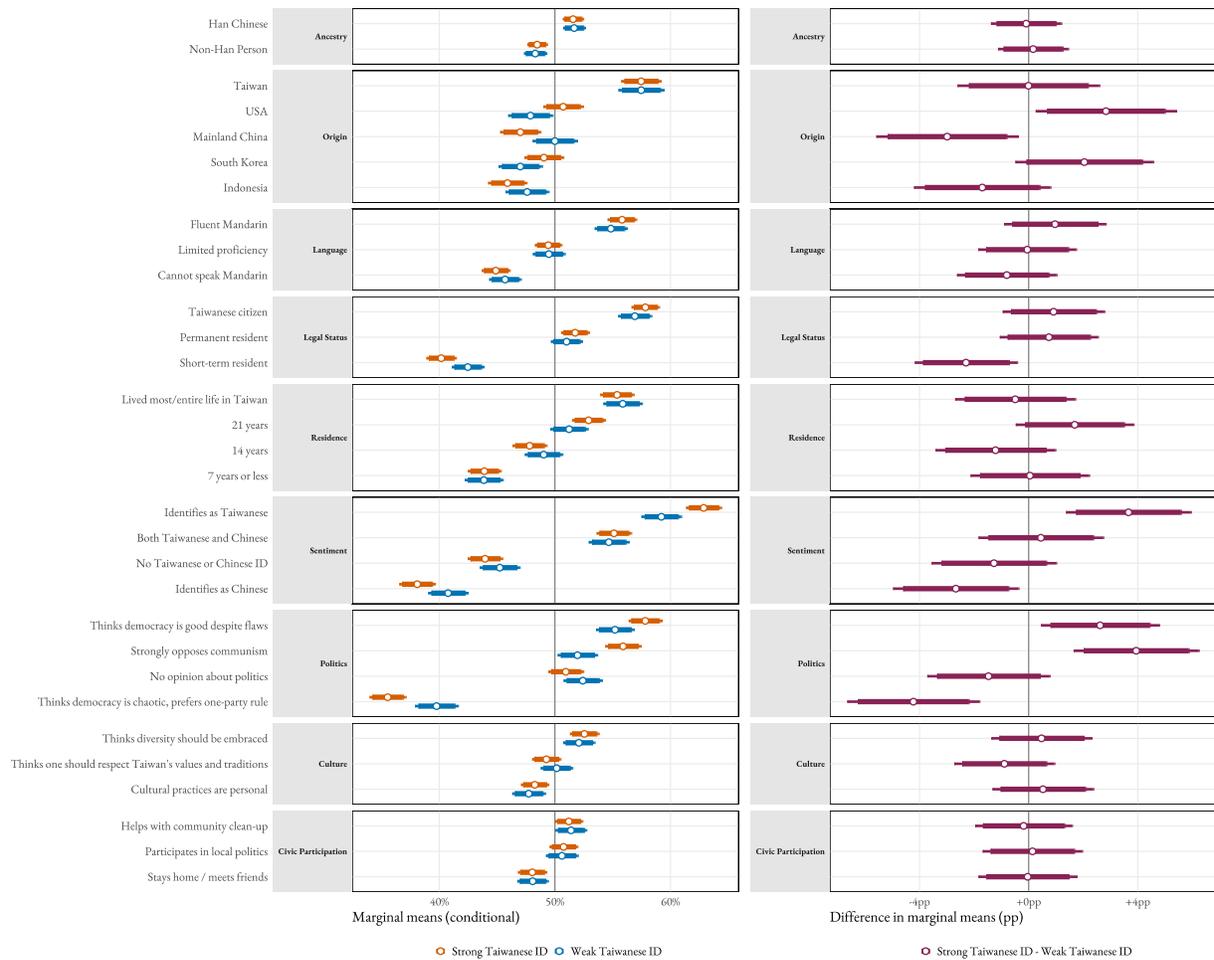


Figure 4: Subgroup analysis by Taiwanese identity strength. Left: conditional marginal means for strong vs. weak Taiwanese identifiers. Right: differences in marginal means (strong minus weak). Dual confidence intervals shown. $n = 2,050$.

respondents evaluate these specific sentiment configurations in others, and which configurations drive the sharpest subgroup divergence. Even more striking, strong identifiers value “supports Taiwan’s democratic system” substantially more than weak identifiers. The difference in marginal means for democratic support is among the largest observed across all attribute levels, indicating that the constitutive relationship between democracy and national identity is concentrated among those with the strongest national identification.

This finding suggests that for strong Taiwanese identifiers, democracy is not merely a preferred form of governance but a constitutive element of national identity itself. Taiwan’s democratic system is perceived as part of what makes the national community distinctive, and commitment to democracy is treated as a criterion for belonging. This is precisely the dynamic predicted by theories linking nationalism and democracy (Nodia, 1992; Greenfeld, 1992), but it has rarely been observed at the individual level with a measurement approach that can isolate the democratic criterion from other identity dimensions.

5.3.2 Liberal-Democratic Values

Figure 5 repeats the subgroup analysis, now comparing respondents scoring at or above the 75th percentile on the liberal-democratic values index with those below.

The results confirm and extend the identity-strength findings. Respondents with high liberal-democratic values place substantially greater weight on democratic political orientation as a criterion for national membership. The conditional marginal means show that high lib-dem respondents rate “supports Taiwan’s democratic system” considerably higher than low lib-dem respondents, and the difference is statistically significant. Conversely, high lib-dem respondents assign a lower marginal mean to “thinks the government should have more control,” indicating that authoritarian political preferences are actively penalized in their assessments of national belonging.

The lib-dem split also reveals divergence on the sentiment attribute. High lib-dem respondents place greater emphasis on identifying as Taiwanese and show greater resistance to Chinese identification. This pattern is consistent with the expectation that liberal-democratic values and exclusive Taiwanese identity are mutually reinforcing: both are grounded in the political distinctiveness of Taiwan’s democratic

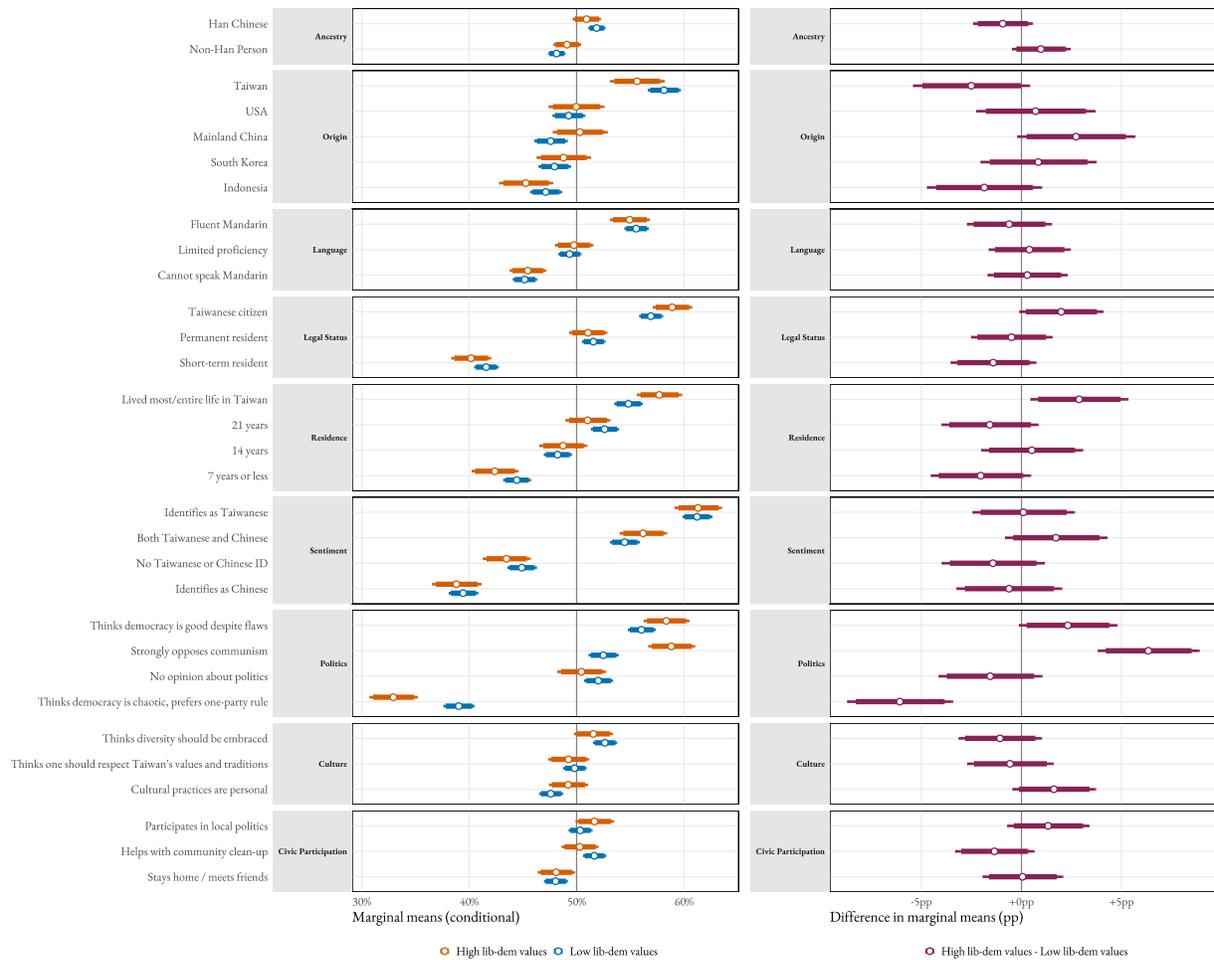


Figure 5: Subgroup analysis by liberal-democratic values. Left: conditional marginal means for high vs. low lib-dem respondents (above vs. below the 75th percentile). Right: differences in marginal means. Dual confidence intervals shown.

system relative to authoritarian China. For citizens who hold liberal-democratic values, “Taiwanese” is not merely a geographic or ethnic label but a political identity defined partly by its contrast with the authoritarian mainland. The appendix subgroup analyses show that this sentiment divergence recurs across additional moderators, including partisanship and identity category, suggesting a robust pattern rather than an artifact of a single operationalization.

The convergence of the identity-strength and lib-dem subgroup analyses strengthens the overall finding. Two different moderating variables, one measuring the intensity of national identification and the other measuring the content of political values, produce the same pattern: democratic institutions matter more for perceived national membership among those who identify most strongly as Taiwanese and among those who most value liberal democracy. Because the subgroup analyses involve multiple simultaneous comparisons, we apply Benjamini-Hochberg false discovery rate (FDR) correction jointly across all diff-in-MM estimates from the identity-strength and lib-dem analyses (see Appendix F for the full table). This triangulation, combined with FDR correction, suggests that the constitutive relationship between democracy and national identity in Taiwan is robust rather than an artifact of any single operationalization or of multiple testing. Additional subgroup analyses by ethnicity (*waishengren* vs. *benshengren*), education, gender, partisanship, and identity category are reported in Appendix D.

6 Discussion

6.1 What Conjoint Experiments Add

Our results demonstrate that conjoint experiments offer meaningful measurement advantages over conventional national identity batteries. The observational battery produces compressed distributions in which most criteria receive high importance ratings, leaving researchers to infer relative importance from small differences in means. The conjoint format, by contrast, forces respondents to make trade-offs, revealing a differentiated ranking of identity criteria that shows which attributes actually drive perceptions of national belonging.

The comparison between the observational battery (Figure 1) and CBC #1 (Figure 2) is instructive.

Both approaches cover overlapping content, and both place voluntarist and civic criteria above ascriptive ones. The conjoint's contribution is not to overturn the battery's conclusions but to sharpen them: it quantifies the relative weight of each criterion and reveals the trade-off structure that compressed ratings obscure. A researcher relying on the battery alone would correctly infer that Taiwanese citizens place more weight on civic and voluntarist criteria than on ascriptive ones, but would lack the information needed to assess the magnitude of these differences or the trade-offs respondents make when criteria conflict.

CBC #2 further demonstrates the conjoint's capacity for fine-grained measurement. With nine multi-level attributes, it maps a national identity space that would be impossible to recover from a conventional battery. The finding that democratic political orientation rivals national sentiment as a predictor of perceived Taiwanese-ness is theoretically significant but would be difficult to detect with item-by-item measurement, where both criteria would simply receive high importance ratings.

6.2 Democracy and National Identity in Taiwan

Our subgroup analyses provide individual-level evidence for the constitutive relationship between democracy and national identity, a relationship that has been theorized extensively but rarely measured directly. Nodia (1992) argued that democracy and nationalism are “two sides of the same coin”; our data suggest that for many Taiwanese citizens, this is literally true. For strong Taiwanese identifiers, democratic commitment is a criterion for national membership, a component of what it means to be Taiwanese.

This finding resonates with Taiwan's political trajectory. As the island democratized and sought to differentiate itself from the PRC, democratic institutions became a marker of national distinctiveness (Wachman, 1994; Rigger, 2011). Our conjoint data show that this process has been internalized at the individual level: citizens who identify most strongly as Taiwanese are precisely those who most strongly associate democracy with national belonging. The reinforcing relationship between lib-dem values and national sentiment (Figure 5) further confirms this dynamic. The multi-level sentiment attribute is particularly instructive: the conjoint reveals not just that subgroups disagree about the importance of national sentiment, but exactly which sentiment configurations, exclusive Taiwanese, dual, or Chinese, drive the divergence, information that no single-item categorical measure can provide.

These findings speak to broader debates about whether nationalism is inherently illiberal or whether it can be constitutively linked to democratic values (Tamir, 1993; Banting et al., 2020; Greenfeld, 1992; Hur, 2022). In the Taiwanese case, the answer appears clear: the dominant form of nationalism is deeply entwined with liberal-democratic commitments. This has implications for cross-strait relations, where Taiwan's democratic identity functions as a boundary marker separating the national community from authoritarian China.

6.3 Implications for Comparative Research

While our demonstration uses Taiwan, the conjoint approach is straightforwardly portable to other national contexts. Any setting in which researchers wish to understand how citizens weigh competing criteria for national membership can benefit from the forced-choice format. Comparative designs could field identical conjoint batteries across countries, enabling direct cross-national comparison of national identity structures, a significant advance over the ISSP approach, which permits comparison of individual item ratings but not of trade-off patterns. Göbel, Traunmüller and Schmidt-Catran (2023) have recently proposed a similar conjoint-based approach to measuring multidimensional social identification in a European context, suggesting that interest in experimental approaches to identity measurement is growing.

The conjoint approach is particularly valuable in contexts where national identity is contested or undergoing transformation. Transitional democracies, post-conflict societies, and countries experiencing significant immigration all feature competing visions of national community that conventional batteries cannot adequately capture. Hainmueller and Hopkins (2015) demonstrated the power of conjoint experiments for studying immigration preferences, revealing that Americans hold more nuanced views about immigrants than conventional polls suggest. Our application extends this logic from attitudes toward newcomers to the foundational question of what defines the national community itself.

The ability to identify trade-offs among identity criteria, for instance, whether citizens prioritize ancestry or democratic commitment, has direct implications for understanding political cleavages, coalition formation, and the prospects for inclusive national projects. In countries where democratic backsliding is a concern, conjoint experiments could reveal whether democratic institutions have become sufficiently

embedded in national identity to serve as a bulwark against authoritarian reversion, or whether they remain peripheral to how citizens define their national community.

Our Taiwan findings also contribute to comparative discussions about post-authoritarian identity formation (see Jo, 2024, for a comparative analysis of democratic nation-building narratives in South Korea and Taiwan). Hur and Yeo (2024) show that nationalist polarization during early democratization can impose “democratic ceilings” that constrain the quality of democracy in East Asia, a dynamic visible in Taiwan’s partisan divide over national identity. Taiwan’s experience, in which democratization catalyzed the construction of a new national identity centered on civic and voluntarist criteria, may have parallels in other cases of democratic transition. Comparative research could examine whether similar democracy-identity linkages emerge in other young democracies, or whether Taiwan’s geopolitical circumstances make this pattern uniquely strong. The conjoint approach is well suited to studying the “varieties of nationalism” that Mylonas and Tudor (2023) identify across East Asia, where identity fragmentation and reshaping are ongoing processes.

6.4 Limitations

Several limitations should be noted. Our sample is drawn from an online panel, which may not perfectly represent the Taiwanese adult population despite quota matching. The conjoint format asks respondents to evaluate hypothetical persons, and their choices may diverge from how they apply identity criteria in real-world encounters. While the conjoint mitigates some forms of social desirability bias (Horiuchi, Markovich and Yamamoto, 2022), it cannot eliminate it entirely.

Like all conjoint experiments, our estimates are subject to measurement error from inattentive or inconsistent responding. Clayton et al. (2023) show that such error attenuates AMCEs and biases marginal means toward 0.5, potentially understating the strength of attribute effects. We estimate intra-respondent reliability from our data using their extrapolation method and report bias-corrected estimates in Appendix E. The corrected estimates are larger in absolute value than the uncorrected ones, but the overall ranking and substantive conclusions are unchanged. The conjoint’s advantage for measuring national identity lies not in raw measurement reliability but in its ability to reveal trade-off structures and multidimensional

mensional attribute weightings that are invisible to conventional batteries, properties that are orthogonal to the attenuation concern.

Our subgroup analyses involve multiple simultaneous comparisons, raising the concern of false discoveries (Liu and Shiraito, 2023). We address this by applying Benjamini-Hochberg FDR correction jointly across all diff-in-MM estimates from the identity-strength and lib-dem analyses (Appendix F). Beyond formal correction, the same patterns recur across multiple independently motivated subgroup comparisons (identity strength, lib-dem values, partisanship, and identity category), providing informal replication that strengthens confidence in the main findings.

A related design choice is the 75th percentile threshold used for both moderating variables. For Taiwanese identity strength, this corresponds to a score of 10 out of 10, meaning that the “strong” group consists exclusively of respondents reporting the maximum possible identification. While this threshold is empirically grounded and produces a more balanced split than alternatives, it is ultimately a modeling choice; alternative thresholds could yield different subgroup compositions. We report the full distributions in Appendix C and per-subgroup effective sample sizes in Appendix G to support readers in assessing this choice.

The two conjoint experiments also use different attribute sets: CBC #1 replicates the ISSP content while CBC #2 uses Taiwan-specific attributes. While the common content (ancestry, citizenship, political system) shows consistent patterns across both designs, the different framing and level structures mean that AMCE magnitudes cannot be directly compared between CBC #1 and CBC #2.

Our study is cross-sectional. We cannot observe how the trade-off structure of national identity changes over time, though this is an important avenue for future research. Panel designs that field conjoint experiments at multiple time points could track how identity structures evolve in response to political events, a particularly promising application in the Taiwanese context, where identity is demonstrably in flux. Given the rapid trajectory of Taiwanese identity change documented by the NCCU data (Election Study Center, National Chengchi University, 2024), even a few years between waves could reveal meaningful shifts in how citizens weigh competing identity criteria.

7 Conclusion

This paper has argued that conjoint experiments offer a valuable approach to measuring national identity. Using original survey data from Taiwan, we demonstrated that the conventional ISSP-style battery produces compressed distributions that obscure the trade-off structure at the heart of national identity. Conjoint experiments identify a differentiated, multidimensional identity space in which respondents reveal the relative weight they place on competing criteria for national belonging. The multi-level conjoint goes further, decomposing broad criteria like “political system” and “national sentiment” into specific configurations that reveal what these categories actually mean for perceived membership.

Our substantive findings confirm that Taiwan’s national identity is primarily civic and voluntarist rather than ascriptive. Feeling Taiwanese, supporting democracy, and engaging in civic life are the strongest predictors of perceived national belonging; ancestry and language matter but play secondary roles. The choice of Taiwan as a case was not merely methodological but substantive: Taiwan’s intertwined histories of democratization and nation-building generate a clear theoretical expectation that democratic institutions should function as constitutive elements of national identity, not merely preferred governance arrangements. The conjoint design enabled us to test this expectation directly. Subgroup analysis by Taiwanese identity strength and liberal-democratic values, two moderators that map onto the intensity and content of the relationship between democracy and national identity, reveals that this relationship operates at the individual level: strong Taiwanese identifiers and citizens with liberal-democratic values place significantly greater weight on democratic institutions as a criterion for national membership. These are not arbitrary subgroup comparisons; they are theoretically motivated tests of whether democratic commitment has been internalized as part of what it means to belong to the national community.

These findings have implications beyond Taiwan. The conjoint approach to national identity measurement is portable, scalable, and theoretically motivated. It can be deployed in any national context to recover the trade-off structure of national identity, enabling more precise measurement and more informative cross-national comparison. The ISSP has fielded its National Identity module three times over two decades (ISSP Research Group, 1998, 2012, 2015); adding a conjoint component to future waves could dramatically increase the information yield of each survey.

More broadly, our results suggest that the relationship between democracy and nationalism deserves empirical attention at the individual level, not only at the macro level where it has typically been studied. The theoretical claim that democracy and nationalism are “two sides of the same coin” (Nodia, 1992) receives strikingly direct support when we observe that democratic commitment functions as a criterion for national membership among strong identifiers. Taiwan, where democratization and nation-building have unfolded against the backdrop of an authoritarian rival claiming sovereignty over the island, provides a setting where this relationship is both theoretically expected and empirically demonstrable. At a time when questions of national belonging are politically salient across the world, the ability to measure not just *whether* people value identity criteria but *how they weigh them against each other* represents a meaningful advance in our toolkit for understanding nationalism.

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A Sample Characteristics

Table A.1 reports the characteristics of our sample.

| Variable | Category | N | % |
|--------------------|--------------------------|------|------|
| Age | 18–29 | 431 | 21.1 |
| | 30–39 | 534 | 26.1 |
| | 40–49 | 541 | 26.4 |
| | 50–59 | 349 | 17.1 |
| | 60+ | 191 | 9.3 |
| Gender | Female | 962 | 46.9 |
| | Male | 1088 | 53.1 |
| Education | Graduate school | 509 | 24.8 |
| | Junior high or below | 113 | 5.5 |
| | Senior high / vocational | 379 | 18.5 |
| | University / college | 1049 | 51.2 |
| Region | Capital Area | 841 | 41.0 |
| | Central Taiwan | 357 | 17.4 |
| | Eastern Taiwan | 18 | 0.9 |
| | Northern Taiwan | 304 | 14.8 |
| | Offshore Islands | 5 | 0.2 |
| | Southern Taiwan | 525 | 25.6 |
| Ethnicity (father) | Benshengren | 1727 | 84.2 |
| | Other/Mixed | 36 | 1.8 |
| | Waishengren | 287 | 14.0 |
| Partisanship | DPP | 461 | 22.6 |
| | Don't know | 484 | 23.7 |
| | Green Party | 7 | 0.3 |
| | KMT | 489 | 24.0 |
| | NPP | 36 | 1.8 |
| | New Party | 8 | 0.4 |
| | Other parties | 58 | 2.8 |
| | PFP | 12 | 0.6 |
| | SDP | 2 | 0.1 |
| | TPP | 481 | 23.6 |
| | TSU | 1 | 0.0 |
| Identity | Both | 664 | 33.4 |
| | Chinese only | 29 | 1.5 |
| | Neither | 30 | 1.5 |
| | Taiwanese only | 1265 | 63.6 |

Table A.1: Sample Characteristics ($n = 2,050$).

B Factor Analysis of Battery Items

We conduct an exploratory factor analysis of the nine observational battery items to empirically validate the ascriptive, civic, and voluntarist classification used in the main text. We extract three factors using maximum likelihood estimation with oblimin rotation, which permits correlated factors. Table B.1 reports the factor loadings for each item.

The three-factor solution aligns with the theoretical classification. The ascriptive factor loads most heavily on Han ancestry, speaking Mandarin, and speaking Taiwanese. The civic factor loads on ROC citizenship, being born in Taiwan, and residence duration. The voluntarist factor loads on feeling Taiwanese and respecting the political system. Two items exhibit cross-loadings: being born in Taiwan loads on both the civic and ascriptive factors, and knowing history and traditions loads on both the ascriptive and voluntarist factors. These cross-loadings are substantively plausible, as birthplace can be understood as both an ascriptive characteristic and a formal marker of civic membership, while knowledge of history and traditions blends cultural engagement with inherited community membership. We assign each item to its primary factor but indicate cross-loading items with reduced opacity and dashed borders in the battery figure (Figure 1).

| Item | Ascriptive | Civic | Voluntarist | Classification | Cross-loading |
|---------------------------|------------|--------|-------------|----------------|---------------|
| Han ancestry | 0.453 | 0.102 | -0.078 | Ascriptive | |
| Knows history/traditions | 0.498 | -0.057 | 0.339 | Ascriptive | Yes |
| Speaks Mandarin | 0.417 | 0.228 | 0.093 | Ascriptive | |
| Speaks Taiwanese | 0.649 | 0.069 | 0.001 | Ascriptive | |
| Born in Taiwan | 0.336 | 0.526 | -0.149 | Civic | Yes |
| Lived in Taiwan | 0.086 | 0.542 | 0.110 | Civic | |
| ROC citizenship | -0.067 | 0.623 | 0.151 | Civic | |
| Feels Taiwanese | 0.041 | 0.157 | 0.525 | Voluntarist | |
| Respects political system | 0.012 | 0.021 | 0.750 | Voluntarist | |

Table B.1: Factor Loadings for National Identity Battery Items (3-Factor Oblimin Rotation). Maximum likelihood extraction with oblimin rotation ($n = 2,050$). Oblimin rotation permits correlated factors, which is theoretically appropriate because ascriptive, civic, and voluntarist identity dimensions are expected to co-vary within individuals. Varimax (orthogonal) rotation would impose the unrealistic constraint that these dimensions are uncorrelated. Loadings ≥ 0.30 on multiple factors indicate cross-loading items, shown with dashed borders in Figure 1.

C Moderating Variable Distributions

Figure C.1 shows the distribution of Taiwanese identity strength (0–10 slider) in our sample. The distribution is strongly left-skewed, with a mode at 10 and a median at the 50th percentile. We dichotomize respondents at the 75th percentile (a score of 10) for subgroup analysis. Approximately 56% of the sample scores at the maximum, reflecting the predominance of strong Taiwanese identification in the contemporary population.

Figure C.2 shows the distribution of the liberal democracy score. The distribution is approximately normal. We dichotomize respondents at the 75th percentile: those scoring at or above this threshold are classified as “High lib-dem values.”

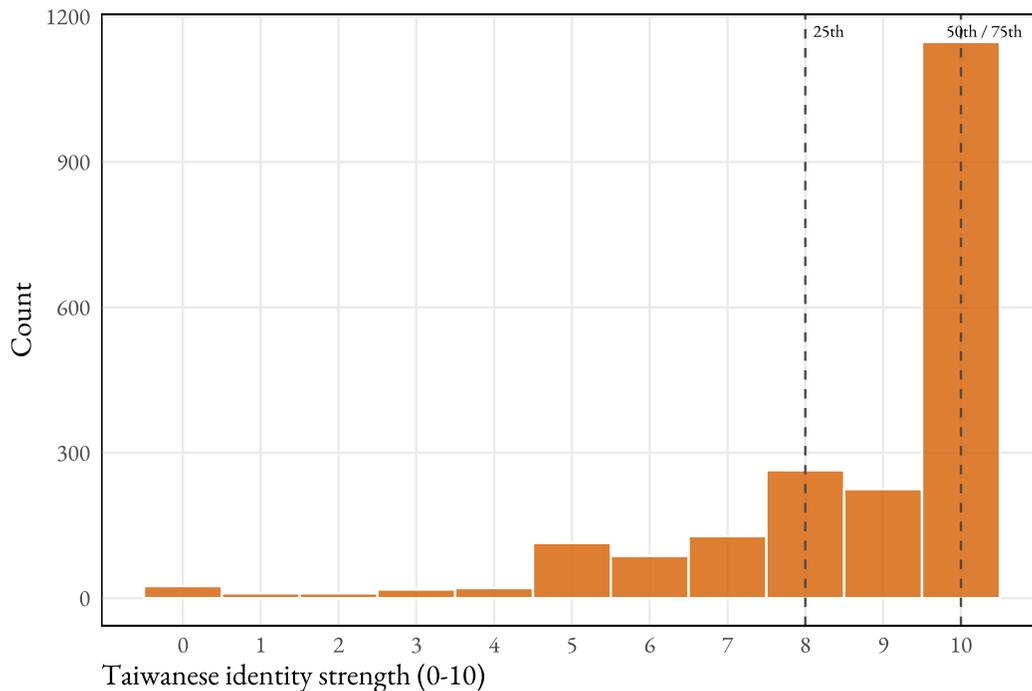


Figure C.1: Distribution of Taiwanese identity strength (0–10 slider). Dashed lines indicate 25th, 50th, and 75th percentiles. $n = 2,050$.

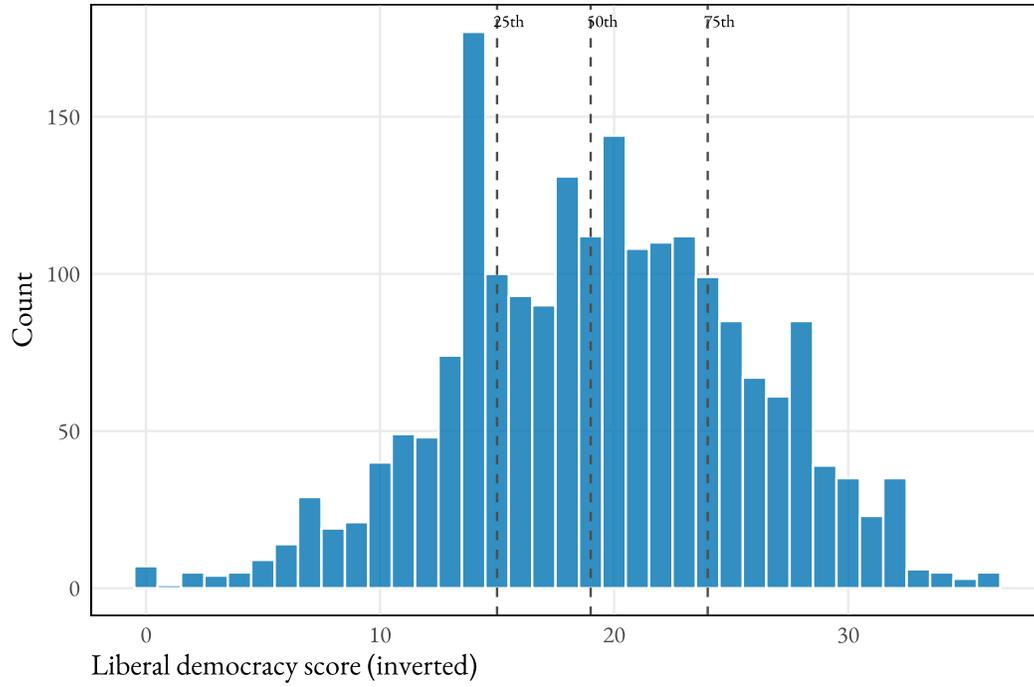


Figure C.2: Distribution of liberal democracy scores (11-item index, inverted). Dashed lines indicate 25th, 50th, and 75th percentiles. $n = 2,050$.

D Additional Subgroup Analyses

We conduct additional subgroup analyses to assess the robustness and generality of the main findings. Each analysis follows the same approach as the main text: we estimate conditional marginal means for each subgroup and differences in marginal means to test for statistically significant divergence.

D.1 Waishengren vs. Benshengren

Figure D.1 compares respondents whose fathers are classified as *waishengren* (mainlanders, families who arrived from mainland China after 1945) with those classified as *benshengren* (native Taiwanese, families with longer settlement histories). This cleavage is one of the most historically significant in Taiwanese politics, reflecting divergent experiences of colonization, migration, and authoritarian rule. Waishengren families were disproportionately associated with the KMT's Chinese nationalist project, while benshengren identities became increasingly aligned with Taiwanese nationalism during and after democratization.

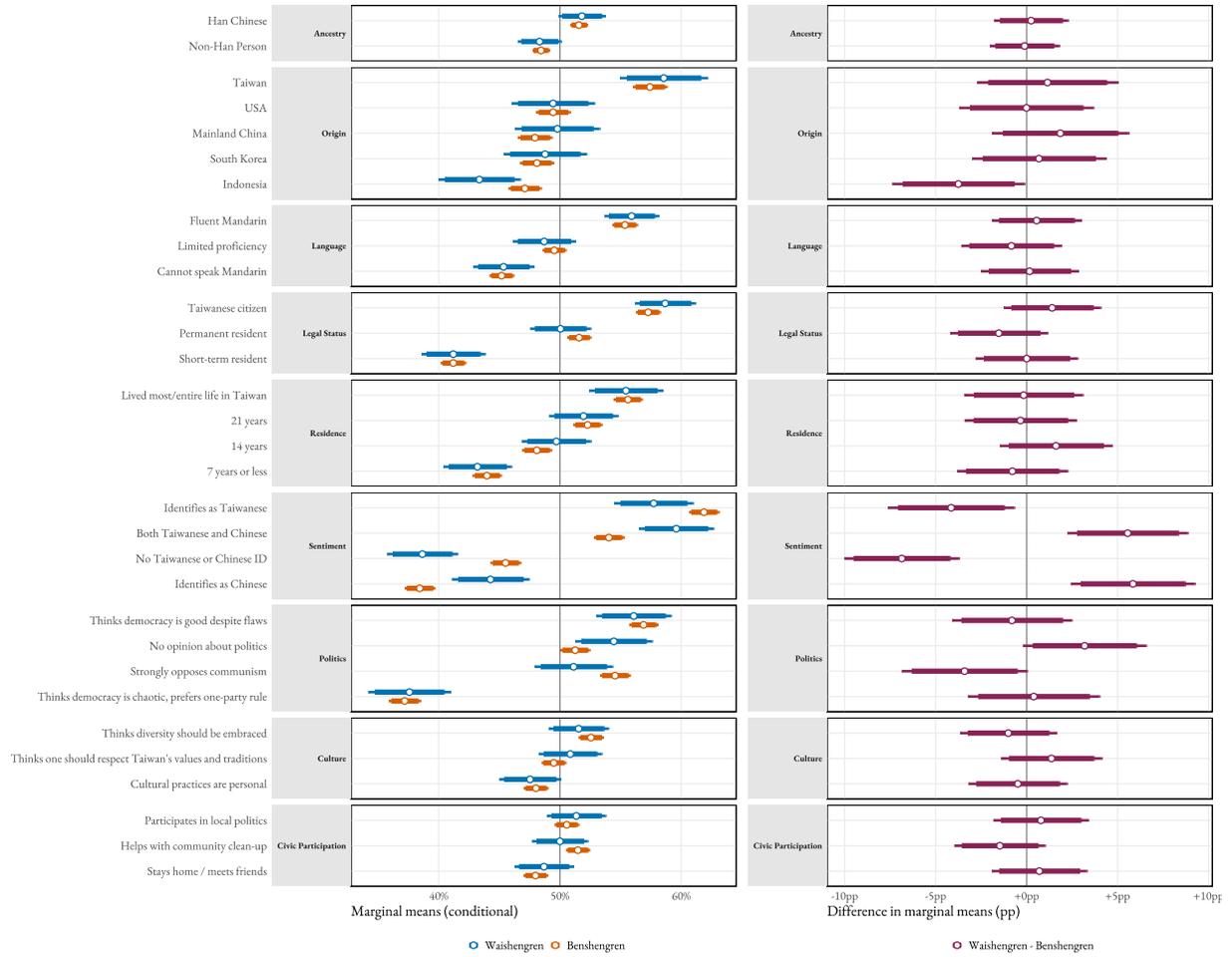


Figure D.1: Subgroup analysis by waishengren/benshengren classification (based on father's origin). Left: conditional marginal means. Right: differences in marginal means (benshengren minus waishengren). Dual confidence intervals shown (thick: 90%; thin: 95%).

D.2 Education

Figure D.2 compares respondents with university-level education or above with those without. Education may shape both the content and structure of national identity through exposure to cosmopolitan values, critical thinking about political institutions, and differential socialization experiences.

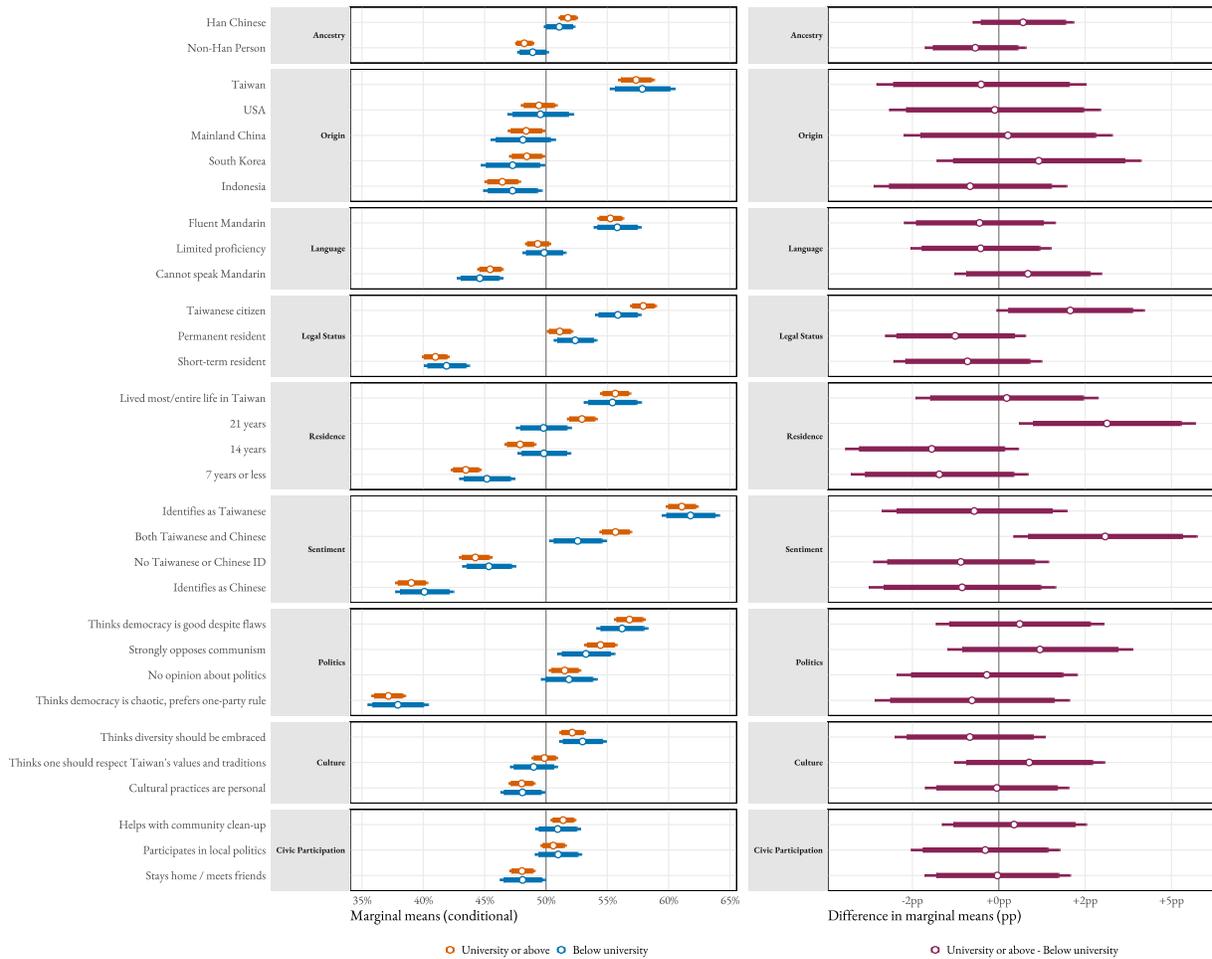


Figure D.2: Subgroup analysis by education level (university or above vs. below university). Left: conditional marginal means. Right: differences in marginal means (university minus below). Dual confidence intervals shown (thick: 90%; thin: 95%).

D.3 Gender

Figure D.3 compares male and female respondents. Gender differences in national identity have received limited attention in the Taiwan context, making this an exploratory analysis.

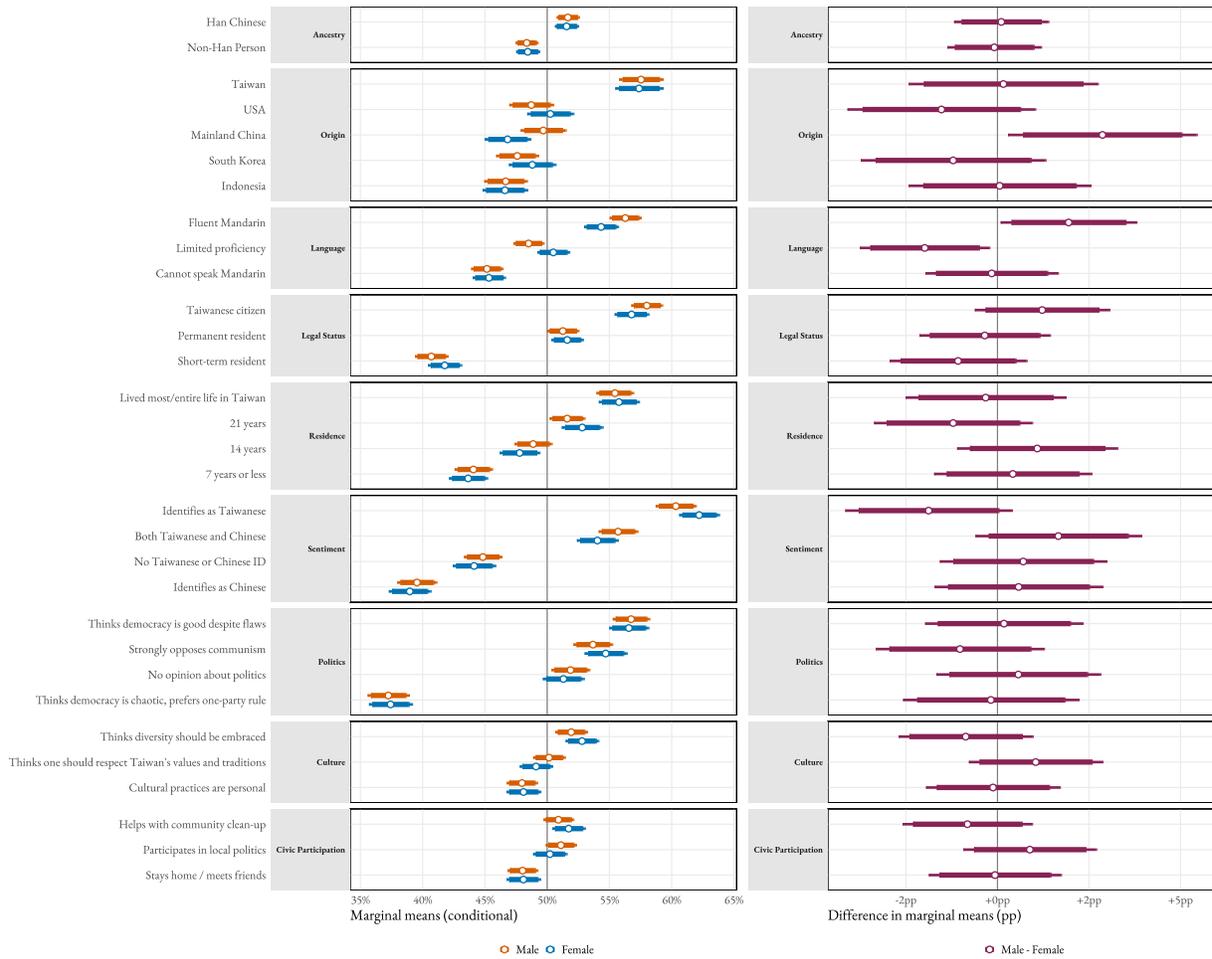


Figure D.3: Subgroup analysis by gender. Left: conditional marginal means for male vs. female respondents. Right: differences in marginal means (male minus female). Dual confidence intervals shown (thick: 90%; thin: 95%).

D.4 Partisanship (Pan-Green vs. Pan-Blue)

Figure D.4 compares respondents who identify with pan-Green parties (DPP, NPP, Green Party, TSU) with those who identify with pan-Blue parties (KMT, PFP, New Party), following the standard camp-level operationalization of partisan identity in Taiwan (Yu, 2017). Supporters of the Taiwan People's Party (TPP) and nonpartisans are excluded, as these respondents do not map cleanly onto either camp. Partisan camp may shape which criteria respondents prioritize for national membership, with pan-Green supporters potentially placing greater weight on Taiwanese-centric and democratic criteria.

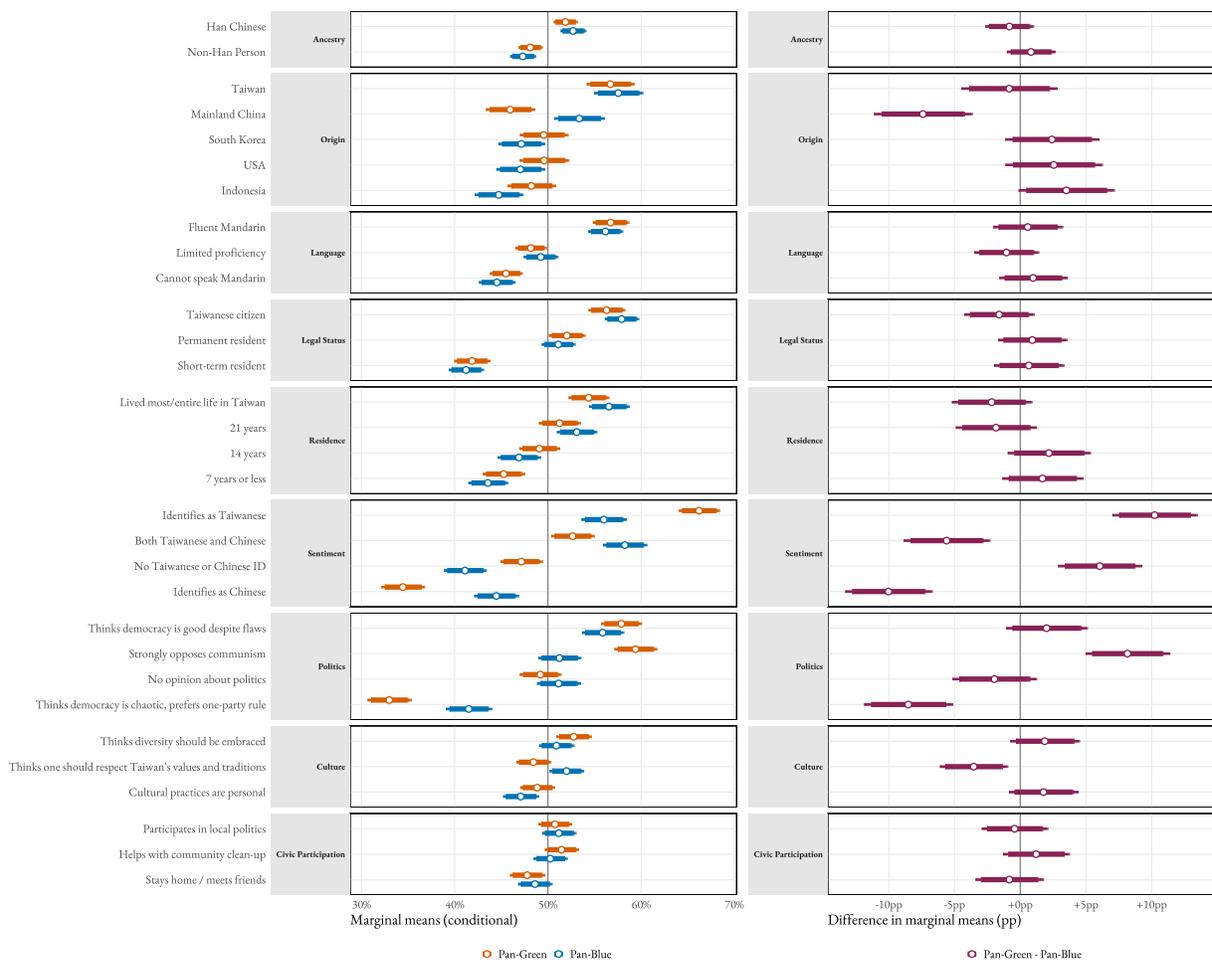


Figure D.4: Subgroup analysis by partisan camp (pan-Green vs. pan-Blue; TPP and nonpartisans excluded). Left: conditional marginal means. Right: differences in marginal means (pan-Green minus pan-Blue). Dual confidence intervals shown (thick: 90%; thin: 95%).

D.5 Identity Category (Taiwanese Only vs. Both)

Figure D.5 compares respondents who identify exclusively as Taiwanese with those who identify as “both Taiwanese and Chinese.” Respondents who identify as Chinese only or who select other categories are excluded due to small cell sizes. This comparison tests whether the categorical identity distinction, which has been the primary measure of Taiwanese identity in decades of survey research (Election Study Center, National Chengchi University, 2024), maps onto different weighting of identity criteria in the conjoint format.

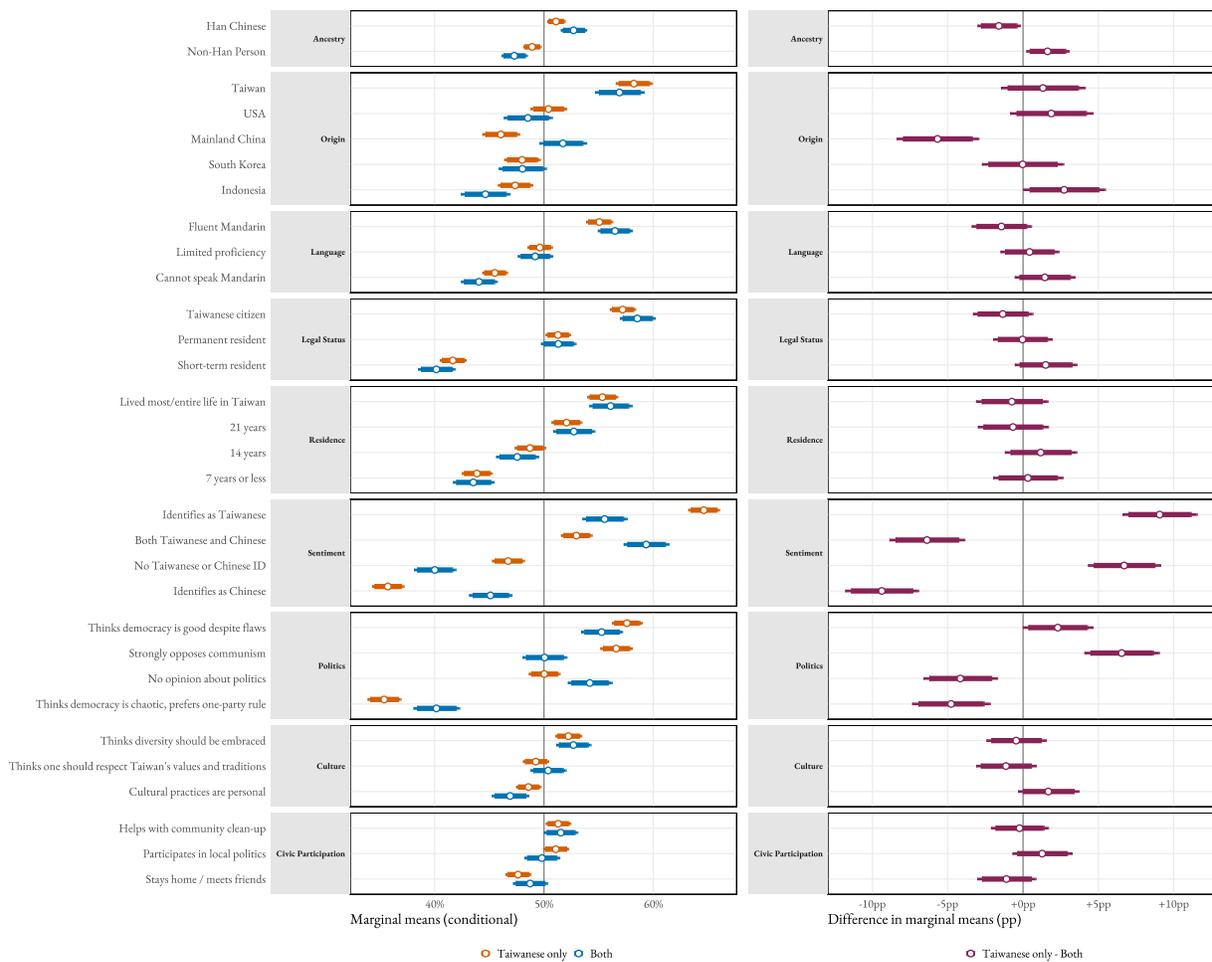


Figure D.5: Subgroup analysis by identity category (Taiwanese only vs. both Taiwanese and Chinese; other categories excluded). Left: conditional marginal means. Right: differences in marginal means (Taiwanese only minus both). Dual confidence intervals shown (thick: 90%; thin: 95%).

E Measurement Error Correction

Conjoint estimates may be attenuated by measurement error when respondents answer inconsistently across tasks (Clayton et al., 2023). We estimate intra-responder reliability (IRR) from our data using the extrapolation method of Clayton et al. (2023). For each respondent, we form all within-responder pairs of conjoint tasks and compute the rate at which the respondent makes the same choice (selects the same profile number) across paired tasks, as a function of the number of attributes whose configurations differ between the two tasks. We then extrapolate this agreement rate to zero attribute differences via weighted least squares; the intercept estimates the IRR.

Figure E.1 shows the extrapolation for both conjoint experiments. CBC #1, with 8 binary attributes, provides better coverage at low difference levels. CBC #2, with 9 multi-level attributes, requires longer-range extrapolation because nearly all task pairs differ on many attributes simultaneously.

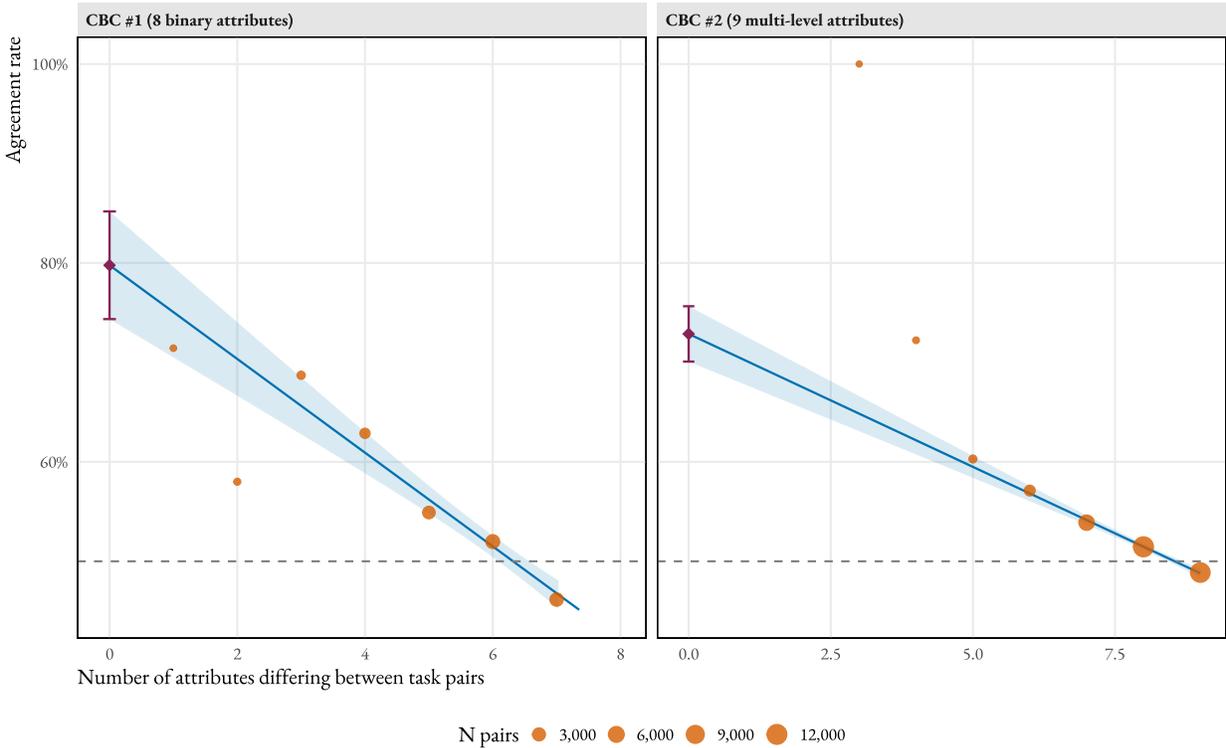


Figure E.1: Intra-responder reliability (IRR) estimation via the extrapolation method of Clayton et al. (2023). Points show observed agreement rates for task pairs grouped by number of differing attributes (sized by number of pairs). Line shows WLS fit with 95% CI. Diamond at $x = 0$ shows estimated IRR. Dashed line at 50% indicates random agreement.

Table E.1 reports uncorrected and bias-corrected AMCEs and marginal means for key attribute levels in CBC #2. The correction inflates estimates by a factor of $1/(1 - 2\tau)$, where τ is the error rate derived from the IRR. Corrected estimates are larger in absolute value, but the ranking of attributes and the substantive conclusions are unchanged.

| Attribute | Level | AMCE | AMCE (corr.) | MM | MM (corr.) |
|-----------|--|--------|--------------|-------|------------|
| Ancestry | Han Chinese | 0.030 | 0.045 | 51.6% | 52.4% |
| Language | Fluent Mandarin | 0.101 | 0.149 | 55.4% | 58.0% |
| Status | Permanent resident | 0.103 | 0.152 | 51.4% | 52.1% |
| | Taiwanese citizen | 0.161 | 0.238 | 57.4% | 61.0% |
| Residence | Lived most/entire life in Taiwan | 0.118 | 0.174 | 55.6% | 58.3% |
| Sentiment | Identifies as both Taiwanese and Chinese | 0.103 | 0.152 | 54.9% | 57.3% |
| | Identifies as Chinese | -0.053 | -0.078 | 39.3% | 34.1% |
| | Identifies as Taiwanese | 0.167 | 0.246 | 61.2% | 66.6% |
| Politics | Strongly opposes communism | 0.027 | 0.040 | 54.2% | 56.1% |
| | Thinks democracy is chaotic, prefers one-party rule | -0.142 | -0.211 | 37.3% | 31.3% |
| | Thinks democracy is good despite flaws | 0.053 | 0.079 | 56.7% | 59.8% |
| Culture | Thinks one should respect Taiwan's values and traditions | 0.012 | 0.018 | 49.7% | 49.5% |
| Civicness | Participates in local politics | 0.027 | 0.040 | 50.7% | 51.0% |

Table E.1: Uncorrected and bias-corrected AMCEs and marginal means for key CBC #2 attribute levels. Correction follows Clayton et al. (2023). See text for sensitivity analysis at assumed IRR values of 0.70, 0.75, and 0.80.

F Benjamini-Hochberg FDR Correction

The subgroup analyses in the main text estimate differences in marginal means for all attribute levels across two moderating variables (identity strength and liberal-democratic values), yielding a large number of simultaneous hypothesis tests. Following Liu and Shiraito (2023), we apply the Benjamini-Hochberg procedure to control the false discovery rate (FDR) at 0.05 across all diff-in-MM tests from both main subgroup analyses jointly. Table F.1 reports the uncorrected and BH-corrected p -values for all estimates that are significant at $p < 0.05$ before correction, along with whether they survive correction. The same patterns also recur across additional subgroup comparisons (partisanship, identity category), providing informal replication that further supports the robustness of the findings.

| Subgroup | Attribute | Level | Diff-in-MM | p | p_{BH} | Survives |
|-------------------|-----------|---|------------|--------|----------|----------|
| Identity strength | Politics | Thinks democracy is chaotic, prefers one-party rule | -0.042 | 0.0006 | 0.0117 | Yes |
| | Politics | Strongly opposes communism | 0.039 | 0.0008 | 0.0117 | Yes |
| | Sentiment | Identifies as Taiwanese | 0.037 | 0.0017 | 0.0213 | Yes |
| | Status | Short-term resident | -0.023 | 0.0163 | 0.1495 | No |
| | Politics | Thinks democracy is good despite flaws | 0.026 | 0.0177 | 0.1495 | No |
| | Sentiment | Identifies as Chinese | -0.027 | 0.0228 | 0.1495 | No |
| | Origin | Mainland China | -0.030 | 0.0241 | 0.1495 | No |
| | Origin | USA | 0.028 | 0.0310 | 0.1746 | No |
| Lib-dem values | Politics | Strongly opposes communism | 0.063 | 0.0000 | 0.0001 | Yes |
| | Politics | Thinks democracy is chaotic, prefers one-party rule | -0.061 | 0.0000 | 0.0002 | Yes |
| | Residence | Lived most/entire life in Taiwan | 0.029 | 0.0198 | 0.1495 | No |

Table F.1: Benjamini-Hochberg FDR correction for diff-in-MM estimates. Shows all estimates significant at $p < 0.05$ before correction, with BH-corrected p -values and survival status at $FDR < 0.05$.

G Effective Sample Sizes

Table G.1 reports the number of unique respondents and effective observations (respondents \times tasks) for each subgroup used in the analyses. Following Stefanelli and Lukac (2020), subgroups with fewer than 3,000 effective observations may be subject to elevated Type S (sign) and Type M (magnitude) errors and should be interpreted with caution.

| Subgroup Variable | Group | <i>N</i> Respondents | Tasks | Effective <i>N</i> |
|-------------------|---------------------|----------------------|-------|--------------------|
| Full sample | — | 2,050 | 6 | 12,300 |
| Identity strength | Weak Taiwanese ID | 902 | 6 | 5,412 |
| | Strong Taiwanese ID | 1,148 | 6 | 6,888 |
| Lib-dem values | Low lib-dem values | 1,502 | 6 | 9,012 |
| | High lib-dem values | 548 | 6 | 3,288 |
| Waishengren | Benshengren | 1,727 | 6 | 10,362 |
| | Waishengren | 287 | 6 | 1,722† |
| Education | Below university | 492 | 6 | 2,952† |
| | University or above | 1,558 | 6 | 9,348 |
| Gender | Female | 962 | 6 | 5,772 |
| | Male | 1,088 | 6 | 6,528 |
| Partisanship | Pan-Blue | 509 | 6 | 3,054 |
| | Pan-Green | 505 | 6 | 3,030 |
| Identity category | Both | 664 | 6 | 3,984 |
| | Taiwanese only | 1,265 | 6 | 7,590 |

Table G.1: Effective sample sizes by subgroup for CBC #2 (6 tasks per respondent). † indicates subgroups with effective $N < 3,000$, where statistical power may be insufficient for reliable subgroup comparisons (Stefanelli and Lukac, 2020).