

Beyond the cosmopolitan assumption: National and global identity as complementary, not antagonistic, drivers of climate engagement

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Beyond the cosmopolitan assumption: National and global identity as complementary, not antagonistic, drivers of climate engagement

Abstract

Nationalism and national identity are often assumed to narrow the moral circle and obstruct cooperation on problems whose costs and beneficiaries cross borders. Climate change is the paradigmatic such problem, and a widely held view holds that only a globally scaled identity can motivate engagement with it, whereas national attachment depresses concern. This study tests that asymmetric, zero-sum assumption directly. Drawing on social identity theory, the psychometric paradigm of risk, and the theory of planned behavior, we analyzed survey data from a national sample of South Korean adults ($N = 1,552$), modeling climate-response intention and self-reported action as functions of sociodemographic controls, risk-related cognition and affect, planned-behavior constructs, and two distinct identities: a global identity encompassing concern for humanity as a whole and a national identity bounded by one's own country. Ordinary least squares regression showed that both identities were positively and independently associated with intention and action, and that the two were statistically orthogonal rather than opposite poles of a single dimension. Contrary to the cosmopolitan expectation, national identity was at least as strong a motivator as global identity and a stronger predictor of enacted behavior. Moderation analyses further revealed that the identities operate in distinct and partly counterintuitive ways: global identity decoupled engagement from institutional trust rather than amplifying other drivers, while national identity weakened the cognitive and affective predictors of intention yet reinforced moral obligation and, most strikingly, strengthened rather than suppressed the translation of global identity into action. These findings challenge the assumption that national and global identities are antagonistic and suggest that, in a strong-nation context, the two function as complementary psychological resources for climate engagement. Beyond climate politics, the results bear on wider debates over whether national identity is inherently exclusionary, indicating that a secure national attachment can enable rather than crowd out solidarity with humanity as a whole.

Keywords: global identity; national identity; climate-response intention; pro-environmental behavior; risk perception; social identity theory; institutional trust

1. Introduction

Physical evidence that the Earth's climate is changing has moved from projection to observation. The Intergovernmental Panel on Climate Change (2021) concluded that global surface temperature in the first two decades of the twenty-first century stood approximately 1.1°C above the late-nineteenth-century baseline, that each of the last four decades has been successively warmer than any that preceded it since 1850, and that human influence on the warming of the atmosphere, ocean, and land is now unequivocal. The consequences are no longer abstract. Heatwaves, heavy precipitation, droughts, and tropical cyclones have grown more frequent or more intense across most inhabited regions, sea levels have continued to rise, and the window for holding warming close to 1.5°C is narrowing with every year of delayed mitigation (IPCC, 2021). These are not distant hazards confined to the end of the century; they are unfolding within the lifetimes of people alive today, and the distance between the warming already set in motion and the ambition of current pledges has been described as an emission gap that widens with every year of delay (United Nations Environment Programme, 2022).

Confronting this crisis requires actions on two fronts. Mitigation seeks to reduce the greenhouse gas emissions that drive warming. Adaptation seeks to reduce the harm that warming already imposes. Both fronts depend heavily on the aggregation of individual conduct. Direct and indirect household activities, including energy use, transportation choices, diet, and consumption patterns, account for a substantial share of national emissions, and behavioral wedges have been estimated to deliver rapid and sizable reductions in the residential sector alone (Dietz et al., 2009). The political feasibility of ambitious decarbonization also depends on whether citizens are prepared to bear concentrated short-term costs in exchange for diffused and delayed collective benefits, as public acceptance is a recognized precondition for stringent climate policy (Drews & van den Bergh, 2016). Understanding what motivates individuals to form the intention to act and translate that intention into behavior is, therefore, central to any realistic mitigation strategy.

A long tradition of environmental psychology has explained such motivation through cognitive appraisals of risk (Slovic, 1987), affective reactions, trust in institutions, attitudes, perceived control, and norms specified by the theory of planned behavior (Ajzen, 1991). Recently, scholars have argued that climate action is not merely a calculation of costs and benefits but also an expression of who people understand themselves to be (Fielding & Hornsey, 2016; Vesely et al., 2021). Acting on a problem as vast and impersonal as global warming can be an enactment of

identity, and the kind of identity a person holds may shape both whether they care about it and how they respond. Two identities are especially relevant to a problem that is simultaneously planetary in scope and governed largely through nation-states: global identity, the sense of belonging to and caring about humanity as a whole (McFarland et al., 2012), and national identity, the attachment and pride a person feels toward their country (Tajfel & Turner, 1979).

However, the relationship between these two identities and climate engagement remains theoretically ambiguous. Climate change is the paradigmatic case of a shared human fate, and only an identity that encompasses all of humanity can supply a moral circle wide enough to motivate sacrifice on behalf of distant others and future generations. In this view, global identity should promote climate intention and action, whereas national identity, by drawing a boundary around the in-group, should depress concern about problems whose costs and beneficiaries spill across borders. From a competing perspective, national identity carries an environmental meaning. Where protecting the land, landscape, or a nation's standing in the world becomes part of what it means to belong, national attachment can mobilize, rather than inhibit, pro-environmental commitment. Which of these dynamics dominates is ultimately an empirical question that may depend on the national context in which the question is asked.

This study addresses this question by focusing on the following guiding research questions. It seems plausible that a globally oriented identity should serve a positive function for climate intention and behavior, whereas a nationally bounded identity should serve a negative function. However, is that actually the case? To answer this, we examined a national sample of Korean adults and modeled climate-response intention and climate-response action as functions of socio-demographic controls, psychometric risk-paradigm factors, planned behavior constructs, and the two identities. This study makes three main contributions to the literature. First, we estimated and directly compared the independent associations of global and national identities with both intentions and actions within a single fully controlled model. Second, we move beyond direct effects to ask whether the two identities moderate the influence of the other predictors, treating identity not only as a motivator but also as a lens that can strengthen or weaken the effects of risk cognition, affect, trust, and morality. Third, we tested whether national identity conditions the influence of global identity itself, allowing the two to interact rather than merely coexist. Accordingly, the study challenges prior assumptions and adds evidence from an underrepresented East Asian context.

2. Theoretical Background

2.1 Identity as a Driver of Climate-Relevant Behavior

Why would anyone respond to a threat that is remote from one's immediate experiences of climate change? Leary et al. (2011) framed this puzzle as one involving distal threats: when the consequences of behavior are temporally distant, weakly linked to a person's own actions, or of little personal relevance, the prospect of personal reward or punishment is often extremely faint to drive conduct. Their response indicated that people sustain such behavior because of its intrinsic connection to the self. Pro-environmental action can serve to affirm a valued identity, protect self-evaluation, or manage the impression one makes on others, and these self-relevant processes can carry behaviors that simple cost–benefit reasoning would not. Identity, in this account, is not a peripheral correlate of climate engagement but rather a fundamental mechanism that facilitates such engagement. Shadiqi et al. (2022) confirmed a role of identity factors behind someone's pro-environmental behavior (PEB).

Comparative evidence supports the centrality of identity while cautioning that not all identities operate alike. In an unusually comprehensive synthesis, Vesely et al. (2021) pooled 188 published studies covering well over four hundred thousand participants across eight meta-analyses and compared how strongly climate-friendly intentions and behaviors were tied to different kinds of self-definitions. Connectedness to nature, environmental self-identity, and social identification with relevant groups emerged as robust correlates, with environmental self-identity displaying the strongest association. The lesson is twofold: identity consistently matters for climate action, and the magnitude of its influence depends on the invoked identity. This motivates a closer look at the two group-based identities at the center of the present study.

2.2 Social Identity and the Logic of Collective Climate Action

Social identity theory posits that people derive part of their self-concept from membership in social groups and act, in part, to express and protect those memberships. Fielding and Hornsey (2016) argued that this framework reorients the study of environmental attitudes away from the individual considered in isolation and toward groups that assign meaning to environmental positions. From this vantage point, climate-relevant attitudes are not merely private preferences but also markers of group belonging, and the salience of a given group identity can shift what a person considers

normative, feasible, and worth doing. Climate change can be addressed only through collective action. This implies that mobilizing the correct group identity may be as consequential as supplying information or providing incentives.

Patterson (2022) extended this argument from individual psychology to the politics of decarbonization, contending that culture and collective identity deserve a more central place in explaining why ambitious climate policies are enacted or blocked. Where the dominant policy frame has emphasized the material distribution of costs and benefits, Patterson noted that the feasibility of phasing out carbon-intensive industries and the acceptability of the transition are shaped by how policies resonate with collective self-understandings. Identity, in other words, conditions not only private behavior but also the political space within which climate action becomes possible.

2.3 Global Identity and Climate Engagement

Global identity refers to a sense of belonging to humanity as a whole and concern for the well-being of all people, irrespective of nationality. As climate change distributes its causes and consequences across all species, several scholars have proposed that an identity scaled to humanity is uniquely suited to motivate climate action. Loy et al. (2022) tested this proposition directly, framing climate change as a common human fate that calls for sufficiently broad identification to encompass everyone affected. Across two studies, they found that people who identified more strongly with all of humanity attributed greater personal and societal relevance to climate change and reported more climate-protective behaviors, with the perceived relevance of the issue helping to explain the link. According to them, identifying with humanity made the abstract stakes of warming feel personally consequential.

The broader empirical record is encouraging but uneven. In a systematic review of studies relating global identity to environmental concern and behavior, Pong and Tam (2023) found that the association was predominantly positive across diverse samples and operationalizations, while also noting that effects sometimes weakened or disappeared once other predictors were controlled and that the strength of the relationship varied with how global identity and behavior were measured. Cardoso and Pinto (2025) added nuance by establishing that global identity partly predicted normative pro-climate behavior to the extent that people believed collective effort could be effective; global identity also exerted a direct association with behavior beyond this efficacy

pathway. Similarly, Li et al. (2022) demonstrated that a global rather than a local orientation of the self can shape how low-carbon household behavior responds to the way climate goals are framed. Together, these studies suggest that global identity generally facilitates climate engagement, although its influence is frequently channeled through beliefs about relevance and efficacy and can be attenuated in fully specified models.

2.4 National Identity: Barrier or Resource?

National identity presents a more contested picture. If concern for a planetary problem requires a planetary moral circle, then an identity organized around the boundary of one's own nation might be expected to narrow the scope of concern and depress the willingness to bear costs whose beneficiaries lie partly abroad. Some evidence supports this expectation, particularly for defensive variants of national attachment. Cislak et al. (2023) distinguished secure national identification, which is marked by solidarity and satisfaction with one's group, from national narcissism, which is an inflated belief in a nation's exceptionalism rooted in unmet psychological needs. They found that defensive and narcissistic forms predicted weaker support for climate neutrality policies, whereas secure identification did not carry the same cost. The form national attachment takes, not its mere presence, appears to govern whether it obstructs climate engagement.

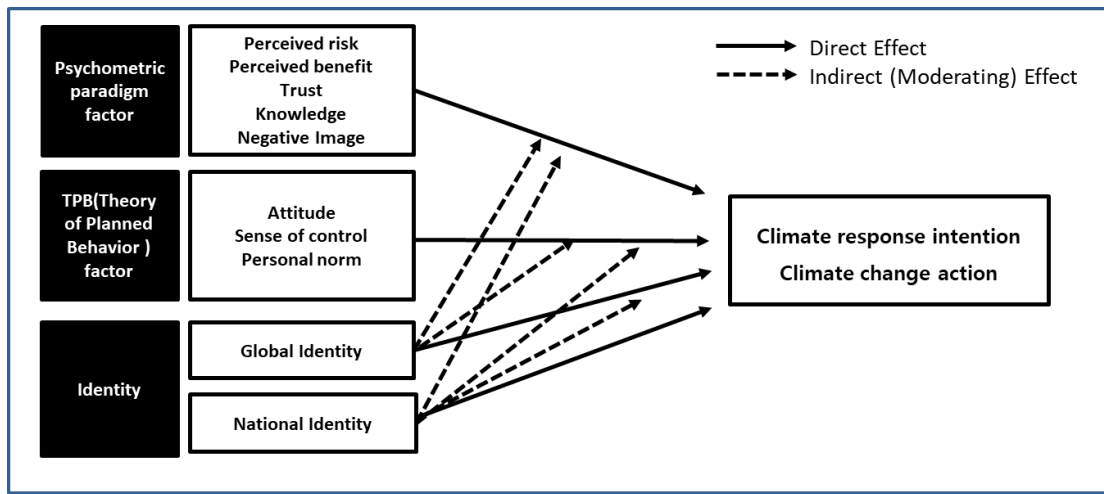
A second body of work entirely reverses the pessimistic expectations. Milfont et al. (2020) analyzed a large national dataset and found that, for a majority of New Zealanders, holding a clean-and-green attitude was treated as a core attribute of what it means to be a true national. Believing that the nation possessed a superordinate environmental identity was associated with both individual pro-environmental tendencies and support for collective measures such as carbon regulation and public transport subsidies, both cross-sectionally and over time. Where environmentalism is woven into the national self-image, national identity becomes a pathway to climate action rather than an obstacle. Charnysh et al. (2015) made a parallel argument outside the environmental domain, experimentally illustrating that heightening a shared national identity increases prosocial behavior across ethnic lines; they emphasized the constructive and inclusive potential of national identification against its more familiar association with chauvinism. Klas et al. (2022) further clarified that messages invoking the threat of national identity loss could raise climate-policy support under certain conditions, again implying that national attachment can be enlisted on behalf of climate goals.

The accumulated picture was then genuinely mixed. Recent scoping and review work captures this heterogeneity: Thye (2025) and Ucar et al. (2023) document that social identities relate to pro-environmental engagement through multiple and sometimes opposing routes, with efficacy beliefs, denial, and the specific content of the identity all shaping the sign and size of the effect. This ambiguity is precisely what makes a direct comparison valuable. Rather than assuming that global identity helps and national identity hinders, the present study estimates both associations within one model and in a single national setting and then asks how each identity shapes the operation of the other predictors.

3. Research Model and Hypotheses

The research model, presented in Figure 1, organizes the predictors of climate-response intention and action into three substantive blocks, namely the psychometric risk-perception paradigm, the theory of planned behavior, and identity, alongside a set of socio-demographic controls. This model specifies two types of pathways. The solid arrows represent the direct effects of each block on the two dependent variables. Dashed arrows represent the moderating role of the two identities, which are theorized not only to influence intention and action directly but also to condition how the risk paradigm and planned behavior predictors translate into climate engagement.

Figure 1. Research model.



Note. Solid arrows denote direct effects, dashed arrows denote indirect (moderating) effects.

3.1 The Psychometric Risk-Perception Paradigm

The first block of predictors is derived from the psychometric paradigm of risk perception, the research program initiated by Slovic (1987), which explains why lay judgments of hazards diverge so sharply from the quantitative estimates of experts. The central insight of the paradigm is that perceived risk is not a single quantity. It is a structured psychological response shaped by qualitative features of the hazard, such as whether it is dreaded, uncontrollable, catastrophic, involuntary, or unfamiliar. These features can be mapped through psychophysical scaling and multivariate analysis (Slovic, 1987). Climate change scores high on precisely the attributes that the paradigm identifies as amplifying perceived risk: its consequences are delayed, its causation diffuses, and its potential outcomes are catastrophic and irreversible. A subsequent extension of the paradigm, the affect heuristic, holds that people's overall positive or negative feelings toward an activity govern their parallel judgments of its risks and benefits so that affect operates as an information shortcut in its own right (Finucane et al., 2000). This study operationalizes the paradigm through five factors. Perceived risk captures the appraised severity of inaction. Perceived benefit captures the appraised gains from solving problems. Trust captures confidence in governmental climate information, an institutional dimension repeatedly shown to shape the acceptance of risk and policy (Siegrist, 2000). Negative feeling captures the affective, dread-related responses anticipated by the affect heuristic, and knowledge captures subjective familiarity with the causes of climate change. Collectively, these factors represent the cognitive and affective appraisals through which a distal, abstract hazard is rendered psychologically meaningful.

3.2 The Theory of Planned Behavior

The second block is derived from the theory of planned behavior, which is the most widely applied framework for predicting volitional behavior in social psychology (Ajzen, 1991). The theory holds that behavior is proximally determined by behavioral intention, which is, in turn, shaped by three antecedents: attitude toward the behavior, the favorable or unfavorable evaluation a person attaches to performing it, subjective norms, perceived social pressure to act, perceived behavioral control, and the sense that one has the capacity and resources to carry out the behavior. Perceived behavioral control is theoretically distinctive because it can influence behavior both indirectly through intention and directly to the extent that it reflects actual control (Ajzen, 1991). Meta-analytic evidence across many behavioral domains confirms that these

constructs predict intention and behavior with substantial accuracy (Armitage & Conner, 2001), and applications to environmental conduct have repeatedly supported the framework, suggesting that it benefits from the addition of moral variables (Bamberg & Möser, 2007). Therefore, the present model augments planned behavior constructs with a moral component drawn from norm activation and the value-belief-norm theory. In this tradition, behavior is driven by a personal norm—an internalized feeling of moral obligation—which is activated when individuals become aware of the consequences of their actions and ascribe responsibility to themselves (Schwartz, 1977; Stern, 2000). The block is therefore represented by three factors: attitude, the relative priority assigned to solving the climate problem; sense of control, the belief that one’s own effort can make a difference; and personal norms, the felt moral duty to act for future generations. These constructs capture the deliberative and moral routes to climate engagement, complementing the appraisal-based route of the psychometric paradigm.

3.3 Direct Effects of the Two Identities

The expectation that global identity should foster climate engagement relies on a clear theoretical logic. Climate change is a collective dilemma in which costs fall on people regardless of nationality and whose solution requires cooperation across borders. An identity that extends the boundary of the self to encompass all humanity expands the moral circle within which the welfare of distant others and future generations is registered as personally relevant (McFarland et al., 2012). When people define themselves as members of the human group, the suffering that warming imposes on strangers and later generations is no longer external to the self but becomes a matter of in-group welfare. Loy et al. (2022) made this mechanism explicit, demonstrating across two studies that identification with all of humanity heightened the personal and societal relevance people attributed to climate change, and through that heightened relevance, predicted more climate-protective behaviors. A systematic review by Pong and Tam (2023) found that this positive link recurs across most studies and operationalizations. Cardoso and Pinto (2025) documented that global identity predicts normative pro-climate behavior both directly and through beliefs about collective efficacy. Vesely et al. (2021) assembled eight meta-analyses that reinforce the general principle that broad, group-based self-definitions reliably correlate with climate-friendly intentions and behaviors. Thus, we anticipated a positive relationship between global identity and both intentions and actions.

H1a. Global identity is positively associated with climate response intentions and climate

response actions.

The case for national identity is less obvious but still grounded. Social identity theory holds that any self-defining group membership can mobilize behavior on the group's behalf and that the nation is among the most powerful of such memberships (Tajfel & Turner, 1979). Whether national identity helps or hinders climate engagement depends on the content that the national group attaches to. Environmental stewardship becomes woven into the national self-image, and acting on climate change becomes a way of being a good member of the nation. Milfont et al. (2020) demonstrated this phenomenon directly by finding that the belief that a nation possesses a superordinate environmental identity predicts both individual pro-environmental tendencies and support for collective climate measures. Charnysh et al. (2015) indicated that strengthening a shared national identity can increase pro-social behavior, even toward out-group members, underscoring the constructive rather than the merely exclusionary potential of national attachment. In the Korean setting, where national identity is strong and widely held, we expect it to function as a resource for climate engagement rather than as a brake on it.

H1b. National identity is positively associated with climate response intentions and actions.

The comparison between the two identities is at the analytical heart of this study. The conventional intuition, implicit in much of the cosmopolitan literature, is that a globally scaled identity should be the stronger motivator of climate engagement because climate change is a global problem demanding a global moral circle, whereas a nationally bounded identity should be comparatively inert or even counterproductive, narrowing concern for the in-group and licensing indifference to costs borne abroad. This intuition is not unreasonable. Some evidence of defensive forms of national attachment support this (Cislak et al., 2023). However, it may understate the motivational force of national identity in societies where the nation is a more salient and emotionally charged group and where environmentalism has begun to acquire national meaning (Milfont et al., 2020). Therefore, we frame the comparison as a directional hypothesis derived from the received view while designing the analysis to ensure that the data can either confirm or overturn it. Stating the hypothesis in its conventional form makes the test informative. A failure to support it would itself be a substantive finding regarding the limits of the cosmopolitan assumption.

H2. The positive association between global identity and climate response intention and action is stronger than that of national identity.

3.4 Identities as Moderators of Other Predictors

Beyond their direct contributions, these two identities may shape how the other predictors operate. The direction in which each does so can be derived from the contrasting normative properties of the two identities. Reasoning draws on the self-categorization principle that the identity made salient governs which information is treated as relevant and how it is weighted (Fielding & Hornsey, 2016). When a self-category is active, considerations congruent with that category are amplified, and incongruent considerations are discounted. The key premise of this study is that these two identities are not symmetrical in their congruence with climate engagement. Global identity has an intrinsic pro-environmental orientation. Because it widens the moral circle to encompass all of humanity and frames climate change as a shared human fate, it sits in alignment with the appraisals and motivations that push toward climate action and thus reinforces them (Loy et al., 2022; McFarland et al., 2012). By contrast, national identity is theorized here as carrying a comparatively parochial orientation. Because it draws a boundary around the in-group and can foreground the nation's own short-term interests over diffuse, cross-border collective goods, it sits at odds with the logic of climate sacrifice and can blunt the motivational force of appraisals that would otherwise drive engagement (Cislak et al., 2023). In this asymmetric interpretation, the two identities moderate the other predictors in opposite directions.

The implication of a global identity is its facilitation. A person who strongly identifies with humanity has a standing reason to act on climate change, which is congruent with the risk appraisals, affective reactions, and moral and attitudinal drivers in the model. Where the two align, the globally identified should respond to those drivers more readily to ensure that the positive associations between the psychometric risk paradigm factors and planned behavior factors, on the one hand, and intention and action, on the other, are stronger at higher levels of global identity. In short, global identity is expected to strengthen the pathways from the other predictors to climate engagement. For national identity, the implication is attenuation. Insofar as a strong national attachment privileges the in-group and resists the cosmopolitan demands of climate action, it should dampen the responsiveness of the nationally identified to the same drivers, weakening the positive associations between the predictors and outcomes at higher levels of national identity. This asymmetric specification follows directly from the assumption that global identity is a pro-climate resource, whereas national identity is a comparatively anti-climate constraint, sharpening

the otherwise open-ended call to examine the conditional, identity-dependent operation of climate-relevant predictors (Vesely et al., 2021).

H3. Global identity strengthens the positive associations between the psychometric risk-paradigm factors (perceived risk, perceived benefit, trust, knowledge, negative feeling) and the theory-of-planned-behavior factors (attitude, sense of control, personal norm), on the one hand, and climate-response intention and action, on the other; the positive relationships are stronger at higher levels of global identity.

H4. National identity weakens the positive associations between psychometric risk-paradigm factors and theory-of-planned-behavior factors, on the one hand, and climate-response intention and action, on the other; the positive relationships are weaker at higher levels of national identity.

3.5 National Identity as a Moderator of Global Identity

Finally, the two identities need not operate in isolation from one another, and the same asymmetric logic that motivates H3 and H4 yields a directional prediction of how they interact. Nested identity models hold that a person can simultaneously identify with their nation and humanity (McFarland et al., 2012); however, holding both does not guarantee that they will pull in the same direction. Suppose that global identity supplies the pro-climate impulse, extending concern to all of humanity and lending climate action its motivational force, whereas national identity supplies a competing, parochial pull that privileges the in-group and resists cross-border sacrifices. A strong national identity should then interfere with the translation of global identity into climate engagement. The boundary-drawing tendency of national attachment narrows the operative in-group and crowds out the wider loyalties on which global identity depends, so that the positive effect of global identity on the outcomes is blunted when national identity is high (Cislak et al., 2023). From this perspective, the globally identified act most decisively on their planetary concern when they are not simultaneously anchored in a strong national identity that competes for allegiance; where national identity is strong, it dampens the behavioral expression of global concern. Therefore, we predict a negative interaction in which national identity weakens, rather than strengthens, the

positive influence of global identity. This prediction follows from the study's central premise that global identity is a pro-climate resource and national identity is a comparatively anti-climate constraint and completes the asymmetric account that runs through H2 to H5.

H5. National identity weakens the positive association between global identity and climate response intention and action; the positive effect of global identity is weaker at higher levels of national identity.

4. Method

4.1 Sample and Procedure

Data were collected through a structured questionnaire survey with a target population of adults aged 18 years and over residing in the Republic of Korea. Respondents were drawn from the Master Sample panel maintained by Korea Research, a professional survey organization, using proportional quota sampling by sex, age, and region, followed by random selection, with quotas set against the resident-registration population figures released by the Ministry of the Interior and Safety in December 2022. The survey was administered by Korea Research as a computer-assisted web interview over a three-day field period from April 5 to April 7, 2023. Of the 29,082 panel members invited, 2,908 began the survey, and 1,552 completed it, yielding a completion rate of 5.3 percent relative to invitations and 53.4 percent relative to those who began. The realized analytic sample of 1,552 respondents implies a maximum permissible sampling error of approximately ± 2.5 percent at the 95 percent confidence level under the assumption of simple random sampling.

The sample composition tracked the national adult population across quota dimensions. Women constituted 51.1 percent of the respondents, and men constituted 48.9 percent. The age distribution spanned five bands. These were 15.7 percent aged 18–29 years, 14.3 percent in their thirties, 18.2 percent in their forties, 19.5 percent in their fifties, and 32.2 percent aged 60 and over, a profile that reflects the older skew of the Korean adult population. Respondents were distributed across all major regions, with the largest shares in Incheon/Gyeonggi (31.7 percent) and Seoul (18.2 percent), and the remainder spread across Daejeon/Chungcheong, Gwangju/Jeolla,

Daegu/Gyeongbuk, Busan/Ulsan/Gyeongnam, and Gangwon/Jeju. In terms of education, 52.6 percent had attended at least junior college, 44.1 percent had completed high school, and 3.2 percent had less than a high school education. Regarding settlement type, 49.3 percent resided in large cities, 42.5 percent in small and mid-sized cities, and 7.9 percent in rural areas. All focal constructs were measured using multi-item scales anchored on a five-point Likert format ranging from strongly disagree to strongly agree. The size and demographic breadth of the sample afford ample statistical power to detect the modest interaction effects of central interest while permitting a stable estimation of a fully specified regression model containing sociodemographic controls, five risk-paradigm factors, three planned behavior factors, and two identities.

4.2 Measures

Table 1 reports the constructs, their subdimensions, representative items, internal consistency reliabilities, and response formats. These two dependent variables distinguish disposition from conduct. Climate response intention captures the willingness to participate in climate solutions, purchase energy-efficient but costlier products, and cooperate with and join government policy initiatives even under constraints. Climate response action captures the self-reported enactment of the corresponding behaviors. The psychometric risk-perception paradigm is represented by five factors: perceived risk, perceived benefit, trust in governmental climate information, negative feelings toward climate change, and subjective knowledge. Attitude, sense of control, and personal norms represent the theory of planned behavior, along with a moral component. Identity is measured by a global identity scale tapping identification with the wider world, global citizenship, and a national identity scale tapping pride in and belonging to one's own country.

The items were adapted from established instruments rather than reproduced verbatim, and the provenance of each construct was made explicit. These two identity scales are the most widely used in this field. The global identity items, which ask respondents to locate their primary interest in the wider world and to regard themselves as global citizens, parallel the content of the Identification With All Humanity Scale (McFarland et al., 2012) and related world-citizenship measures, although the present scale uses a shorter three-item form rather than the full original instrument. National identity items tap into pride in citizenship, perceived national superiority, and a sense of belonging. They follow the conventional operationalization of national identification

within social identity theory (Tajfel & Turner, 1979) and resemble the national identity and national pride items used in large cross-national surveys and prior climate-identity research (Milfont et al., 2020); they are similar in content but not identical in wording.

The planned behavior items were formulated to correspond to Ajzen's (1991) constructs: the attitude items capture the evaluative priority assigned to solving the climate problem, and the sense-of-control items capture perceived behavioral control, specifically the belief that individual effort can make a difference, mirroring the standard formulation of that construct rather than copying any single published item set. The personal-norm items, which invoke a felt moral obligation toward future generations and an ethical duty to act, were modeled on the personal-norm measures derived from norm activation and value-belief-norm theory (Schwartz, 1977; Stern, 2000); equivalent items have been used in pro-environmental applications (Bamberg & Möser, 2007).

Within the risk-perception block, the perceived-risk and negative-feeling items reflect the dread and affective dimensions central to the psychometric paradigm and the affect heuristic (Finucane et al., 2000; Slovic, 1987), while the perceived-benefit items capture the inverse benefit appraisal emphasized in the same tradition. The trust items, which assess confidence in government-provided climate information, follow the institutional-trust formulation that has been linked to risk and benefit perception (Siegrist, 2000). Where no identical published item existed, the closest established item was adapted to the climate-change context and Korean survey conventions. These adaptations are noted here rather than presented as exact replications. Internal consistency was acceptably strong for most scales. The comparatively lower coefficient for global identity reflects the breadth of that construct and the inclusion of a reverse-coded item and is comparable to values reported for short global identity measures in prior research (Pong & Tam, 2023).

Table 1. Measurement items, sub-dimensions, and reliability

Concept	Sub-dimension	Items	Cronbach's α	Scale
Dependent variable	Climate-response intention	I am willing to participate in actions to solve climate change. / I am willing to buy energy-efficient appliances even if they are more expensive. / I am willing to join government policy projects even under	.842	5-Likert

Concept	Sub-dimension	Items	Cronbach's α	Scale
		many constraints. / I am willing to cooperate with government policy even in difficult times.		
	Climate-response action	I practice climate-response behavior more than others. / I buy pricier products to help solve climate change. / I take part in policy projects even under many constraints. / I cooperate with government policy even when facing difficulties.	.789	5-Likert
Risk perception paradigm	Perceived risk	If we do not act on climate change, humanity will face serious problems. / If we do not act on climate change, it will bring many risks to me.	.828	5-Likert
	Perceived benefit	Solving the climate problem will bring great economic benefit to us. / Solving the climate problem will bring economic development.	.858	5-Likert
	Trust	I trust the information about climate change provided by the government. / The government's climate-change information can be trusted.	.788	5-Likert
	Negative feeling	I feel sad when I see climate change caused by global warming. / I feel gloomy when I think about climate change caused by global warming.	.876	5-Likert
	Knowledge	I know well about the causes of climate change. / I have considerable knowledge about climate change compared with others.	.711	5-Likert
TPB (Theory of Planned Behavior) Morality	Attitude	Solving the climate problem is more important than solving other environmental problems. / Solving the climate problem is more important than economic development.	.693	5-Likert
	Sense of control	Whether the climate problem is solved depends on what I do. / If I make an effort, I can help solve the climate problem.	.879	5-Likert
	Personal norm	I feel a moral obligation to solve the climate problem for future generations. / Solving the climate problem is personally an ethical duty for me.	.818	5-Likert
Identity	Global identity	My interest lies mainly in the whole world rather than my local area. / I consider myself a global citizen. / I am more interested in the world than my local area (reverse-coded).	.635	5-Likert

Concept	Sub-dimension	Items	Cronbach's α	Scale
	National identity	I am proud to be a citizen of the Republic of Korea. / My country's superiority over others is a source of national pride. / I feel a strong sense of belonging to my country.	.869	5-Likert

Note. N = 1,552. Cronbach's α computed on the items composing each construct. All items are measured on a 5-point Likert scale.

4.3 Analytic Strategy

The analysis was conducted in four stages. We first described the distribution of the dependent variables and the two identities and examined whether they vary across sociodemographic groups using analysis of variance. We then inspected the bivariate structure of all the constructs using a Pearson correlation matrix. Next, we estimated two ordinary least squares regression models, one for intention and one for action, that enter the sociodemographic controls, the five risk-paradigm factors, the three planned-behavior factors, and the two identities simultaneously, isolating the independent direct association of each identity. Finally, we probed the moderation hypotheses by estimating the interaction terms and plotting the simple slopes of focal predictors at low, mean, and high levels of each identity, following the conventional practice of displaying a moderated relationship at one standard deviation below the mean, at the mean, and one standard deviation above the mean.

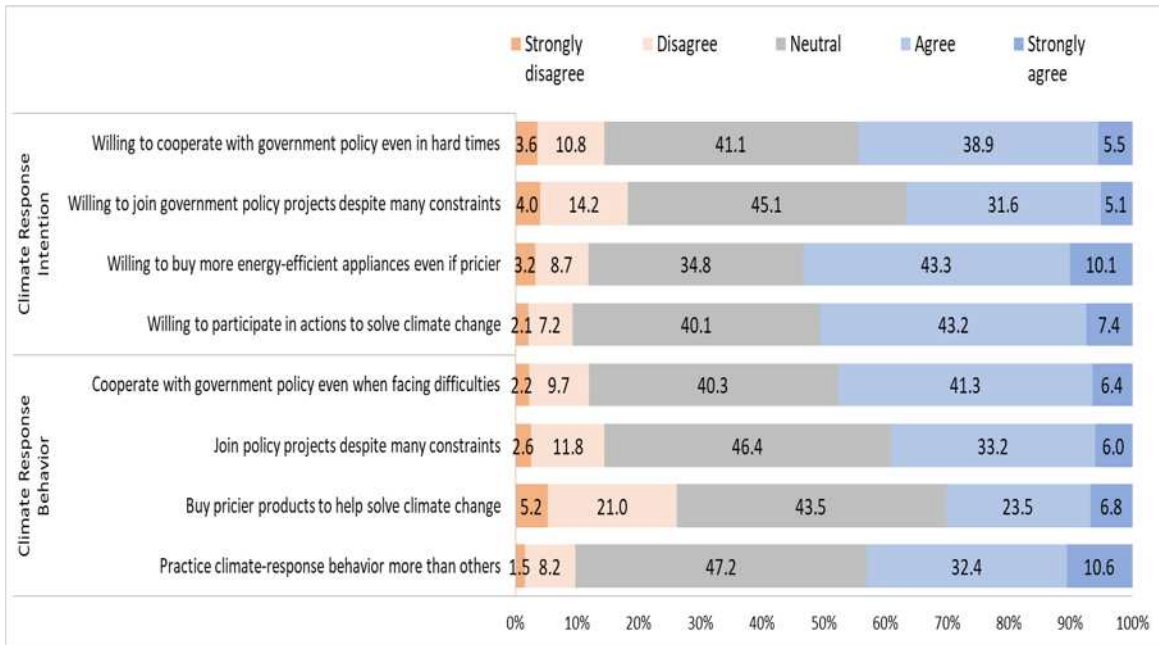
5. Results

5.1 Descriptive Distributions

Figure 2 displays the response distributions for the intention and action items. Across both sets, the modal response clusters around the neutral midpoint, with the combined agreement categories generally outweighing the disagreement categories but rarely commanding an outright majority. Willingness to participate in climate solutions and to purchase energy-efficient appliances drew agreement from approximately half of respondents, whereas willingness to join or cooperate with constrained government programs was endorsed less enthusiastically and attracted a larger share

of neutral responses. The action items echo this pattern at a slightly lower level: relatively few respondents reported practicing climate behavior more than others or buying pricier products, and a substantial neutral bloc persisted throughout. The gap between the more readily endorsed intention items and the more sparingly endorsed action items previews the familiar distance between disposition and conduct, the intention–behavior gap that recurs across applications of the theory of planned behavior to environmental conduct (Bamberg & Möser, 2007).

Figure 2. Frequency distribution: Climate-response intention and action (5-point scale).

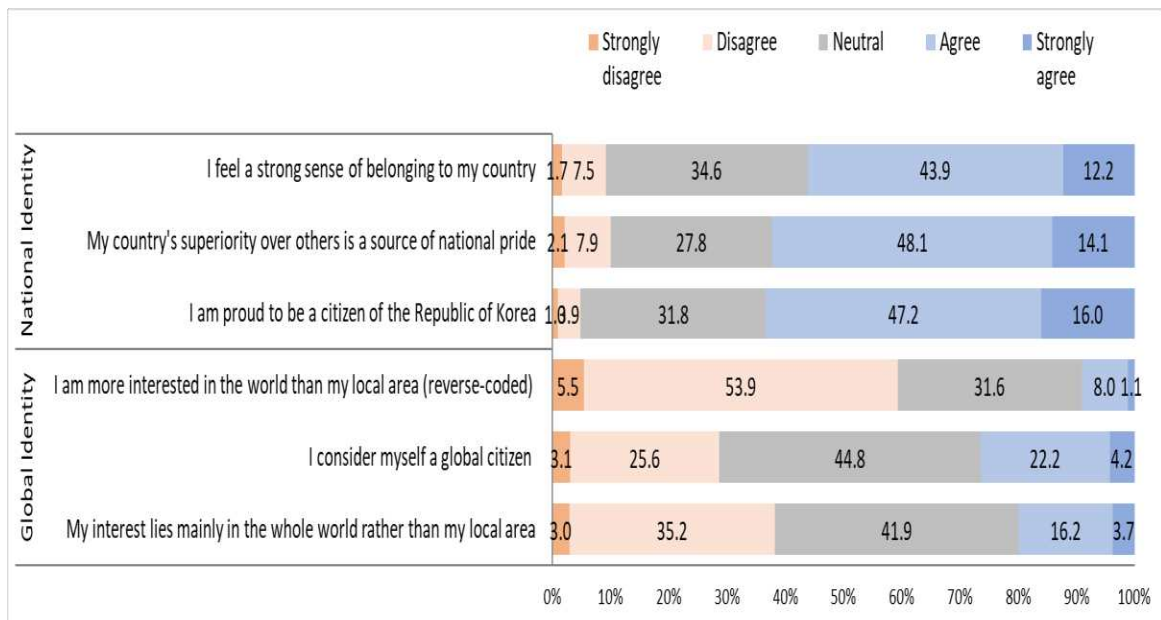


Note. Values are row percentages. N = 1,552.

Figure 3 illustrates the contrast between these two identities. National identity is strongly endorsed: clear majorities express pride in Korean citizenship and a sense of belonging to the country, and agreement categories dominate every national-identity item. Global identity is markedly weaker and more ambivalent. Identification as a global citizen and a primary interest in the wider world drew large neutral and disagreement shares, and the reverse-coded item likewise indicated limited global orientation. This asymmetry—robust national attachment alongside tepid global identification—describes the identity landscape within which the regression and moderation results must be interpreted. This finding matches the comparative salience of national belonging documented for societies in which the nation is a strongly held in-group (Charnysh et al., 2015;

Tajfel & Turner, 1979).

Figure 3. Frequency distribution: National versus global identity (5-point scale).



Note. Values are row percentages. N = 1,552.

5.2 Group Differences

Table 2 reports analysis-of-variance comparisons of intention, action, global identity, and national identity across socio-demographic categories. Gender and household income produced no significant differences on any of the four measures, indicating that climate disposition and identity are largely invariant across men and women and across income strata in this sample. Age, by contrast, was strongly differentiating. Both intention and action rose monotonically across age bands, with respondents aged sixty and over reporting the highest levels and those under thirty the lowest. National identity followed the same upward gradient with age, whereas global identity ran in the opposite direction, peaking among the youngest respondents and declining thereafter. Educational background mattered selectively. It did not differentiate intention or action but was associated with the two identities, with the college-educated reporting somewhat higher global identity and somewhat lower national identity. These patterns foreshadow the multivariate results by suggesting that the two identities are anchored in relatively opposing demographic locations: global identity is associated with the young and educated, while national identity is linked to the old; both intention and action, however, are influenced by age and the broader life stage it indexes.

The opposing demographic anchoring of the two identities echoes the observation that humanity-wide and nation-bounded identifications are distinct constructs with different correlates rather than two ends of one continuum (McFarland et al., 2012; Pong & Tam, 2023).

Table 2. ANOVA: Intention, action, global identity, and national identity by socio-demographic factors

Variables	Category	Intention		Action		Global identity		National identity	
		Mean value	Anova-Test	Mean value	Anova-Test	Mean value	Anova-Test	Mean value	Anova-Test
Gender	Male	3.37	0.125	3.28	0.285	2.77	0.575	3.66	0.114
	Female	3.36		3.30		2.74		3.64	
Age	18–29	3.13	23.525***	3.01	27.473***	2.95	11.129***	3.36	34.052***
	30s	3.19		3.15		2.87		3.35	
	40s	3.30		3.23		2.69		3.59	
	50s	3.39		3.32		2.66		3.76	
	60+	3.59		3.51		2.70		3.89	
Educational background	Under high school	3.38	0.640	3.33	3.826	2.71	6.832**	3.72	10.626**
	College and above	3.35		3.26		2.80		3.59	
Household income	Low	3.30	2.674	3.25	1.214	2.75	0.008	3.66	0.106
	Middle	3.39		3.30		2.76		3.65	
	High	3.40		3.31		2.76		3.64	

Note. *** $p < .001$, ** $p < .01$, * $p < .05$. Rows labeled F report F-statistics; other rows report group means on a 5-point scale. $N = 1,552$.

5.3 Bivariate Correlations

Table 3 presents Pearson's correlation matrix. Intention and action are strongly correlated, confirming that they index the same underlying disposition while remaining sufficiently distinct to warrant separate modeling. Both outcomes are significantly correlated with the dimensions of planned behavior and morality constructs. Personal norms, attitudes, and sense of control display

the largest associations, aligning with meta-analytic evidence that identifies them as key predictors of pro-environmental behavior (Bamberg & Möser, 2007). Additionally, these outcomes are substantially related to perceived risk, perceived benefit, negative feelings, and knowledge. Trust is the weakest of the risk-paradigm correlates, in line with the view that it operates indirectly by shaping risk and benefit appraisals rather than directly affecting behavior (Siegrist, 2000). The two identities exhibit markedly different behaviors at the bivariate level. National identity correlates positively and moderately with both intention and action and with most other predictors. Global identity correlates positively but more weakly with the outcomes and is essentially uncorrelated with several risk-paradigm factors, including perceived risk and trust, a pattern reminiscent of the attenuated zero-order associations sometimes reported for global identity (Pong & Tam, 2023). One result is particularly notable. The correlation between global and national identity is near zero, indicating that the two are statistically orthogonal in this sample rather than opposite poles of a single dimension, exactly as nested-identity models predict (McFarland et al., 2012). This independence is theoretically significant. It means that an individual can hold both, one, or neither, establishing the possibility that one identity might condition the influence of the other.

Table 3. Pearson correlation matrix

	1	2	3	4	5	6	7	8	9	10	11	12
1.Intention	1											
2.Action	.709**	1										
3.Perceived risk	.496**	.387**	1									
4.Perceived benefit	.462**	.390**	.540**	1								
5.Trust	.265**	.166**	.203**	.230**	1							
6.Negative feeling	.470**	.393**	.679**	.455**	.125**	1						
7.Knowledge	.472**	.520**	.339**	.362**	.188**	.342**	1					
8.Attitude	.499**	.442**	.517**	.442**	.141**	.487**	.363**	1				
9.Personal norm	.584**	.538**	.582**	.494**	.185**	.556**	.402**	.604**	1			
10.Sense of control	.496**	.514**	.361**	.455**	.213**	.346**	.426**	.406**	.507**	1		
11.Global identity	.177**	.214**	.037	.078**	.046	.087**	.248**	.108**	.126**	.195**	1	
12.National identity	.344**	.363**	.247**	.323**	.297**	.180**	.218**	.232**	.337**	.299**	.032	1

Note. **p < .01 (two-tailed). N = 1,552.

5.4 Direct Effects: OLS Regression

Table 4 reports the two regression models. Both fit the data well, accounting for approximately half of the variance in intention and in action. The planned-behavior and morality constructs are the dominant predictors throughout: personal norm, sense of control, and attitude carry large and highly significant coefficients for both outcomes, and knowledge is an especially powerful predictor of action. This prominence accords with the theory of planned behavior and its moral extensions, in which attitude, perceived control, and internalized norm are the proximal drivers of environmentally relevant behavior (Ajzen, 1991; Bamberg & Möser, 2007; Stern, 2000). The risk-paradigm factors behave asymmetrically across the two outcomes. Perceived risk, perceived benefit, trust, and negative feelings all significantly predict intention; however, their coefficients shrink toward zero and, in several cases, reverse to non-significance for action. The implication is that cognitive and affective risk appraisals shape what people are willing to do more than what they report actually doing, a divergence that follows the appraisal-based logic of the psychometric paradigm (Slovic, 1987). Age is positively associated with both outcomes, matching the descriptive gradient.

The identity results directly support the first set of hypotheses. Global identity was positively and significantly associated with both intention ($\beta = .071$) and action ($\beta = .094$), supporting H1a. National identity is likewise positive and significant for both intention ($\beta = .052$) and action ($\beta = .112$), supporting H1b. However, the comparison demanded by H2 runs contrary to conventional expectations. For intention, the two standardized coefficients are similar, with a marginally larger global identity. National identity is a strong predictor of action. Thus, there is no consistent evidence that global identity dominates national identity, and for actual behavior, the ordering is reversed. Therefore, H2 is not supported. In this Korean sample, bounded national attachment is at least as effective as a motivator of climate engagement as a globally scaled one, and it is more effective for the two where enacted behavior is concerned. This outcome aligns with the view that national identity can carry environmental meaning (Milfont et al., 2020) rather than with the assumption that it narrows the circle of climate concern.

Table 4. OLS regression: Direct effects on climate-response intention and action

Variable		Model 1: Intention for climate response			Model 2: Action for climate response		
		B	S.E	Beta	B	S.E	Beta
Socio-demographic factors	(Constant)	-0.512	0.137		-0.105	0.133	
	Gender (female)	-0.090***	0.026	-0.063	-0.027	0.025	-0.020
	Age	0.007***	0.001	0.153	0.008***	0.001	0.176
	College and above	0.007	0.027	0.005	-0.016	0.026	-0.012
	Income	0.038**	0.013	0.051	0.020	0.013	0.028
Risk perception paradigm	Perceived risk	0.084**	0.026	0.086	-0.006	0.025	-0.007
	Perceived benefit	0.049*	0.021	0.053	-0.003	0.021	-0.003
	Trust	0.066***	0.016	0.080	-0.023	0.015	-0.029
	Knowledge	0.156***	0.021	0.156	0.250***	0.021	0.262
TPB (Theory of Planned Behavior)	Negative feeling	0.078***	0.023	0.088	0.049*	0.022	0.058
	Attitude	0.115***	0.023	0.118	0.079***	0.022	0.085
Morality	Sense of control	0.129***	0.019	0.151	0.172***	0.019	0.211
Identity	Personal norm	0.176***	0.025	0.188	0.156***	0.024	0.175
	Global identity	0.080***	0.021	0.071	0.101***	0.020	0.094
	National identity	0.049*	0.019	0.052	0.101***	0.019	0.112
F-value		117.060***			108.566***		
R ² / adjusted R ²		0.516 / 0.512			0.497 / 0.493		

Note. ***p < .001, **p < .01, *p < .05. N = 1,552.

5.5 Moderating Effects of the Two Identities

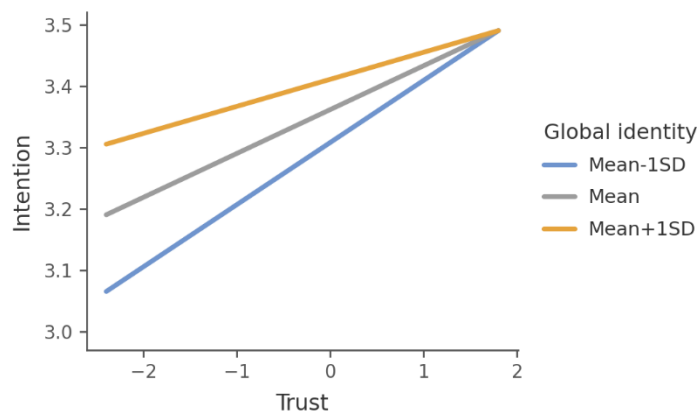
We now turn from the direct effects to the conditional relationships hypothesized in H3 through H5. This study analyzed whether global identity and national identity moderate the effects of perceived risk, perceived benefit, trust, knowledge, negative feeling, attitude, sense of control, and personal norm on climate action intention and climate action. To this end, we examined the interactions between the two moderating variables and the eight independent variables, as well as among the moderating variables, and derived the significant terms. We also analyzed how national identity moderates the influence of global identity. Through this verification, a total of nine significant interaction terms were identified. For the specific statistical values related to this, please refer to the Appendix. The simple slope plots in Figures 4 through 12 display each focal predictor

on the horizontal axis and the relevant outcome on the vertical axis, with separate lines for respondents with low (one standard deviation below the mean), average, and high (one standard deviation above the mean) moderating identity. The vertical spread among the three lines and the way in which the spread changes across the range of the predictor index the moderation.

5.5.1 Global identity as moderator

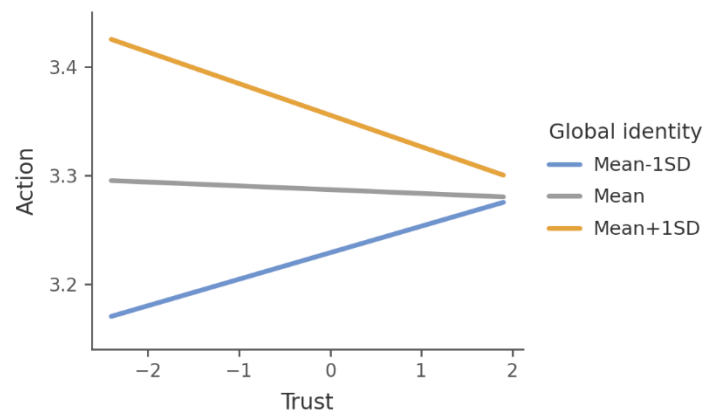
We begin with what H3 expected and did not obtain. This hypothesis anticipates that a strong global identity makes people more responsive to other drivers. In the one-pathway global identity conditions, the figures for trust present a reverse trend. In Figure 4, the trust slope for intention is steep for respondents low in global identity and nearly flat for those high in it, the three lines pinching together at the high-trust end. Read plainly, this means that the weakly globally identified lean on institutional trust to form an intention, whereas the strongly globally identified lean do not. Figure 5 further demonstrates this logic. For action, the high global-identity line tilts downward, crossing the low global-identity line so that trust and action become inversely related among the most globally minded. Neither panel indicates global identity or amplifies any effects. Instead, it severs the tie between climate engagement and confidence in national authorities, representing a substitution rather than a multiplication. Therefore, H3 is not supported on its own terrain, and the more interesting reading is that planetary identification supplies its own warrant for acting, independent of whether the state is trusted (Loy et al., 2022).

Figure 4. Trust × Global identity on climate-response intention



Note. IV = independent variable; M = moderator; DV = dependent variable.

Figure 5. Trust $\times$ Global identity on climate-response action

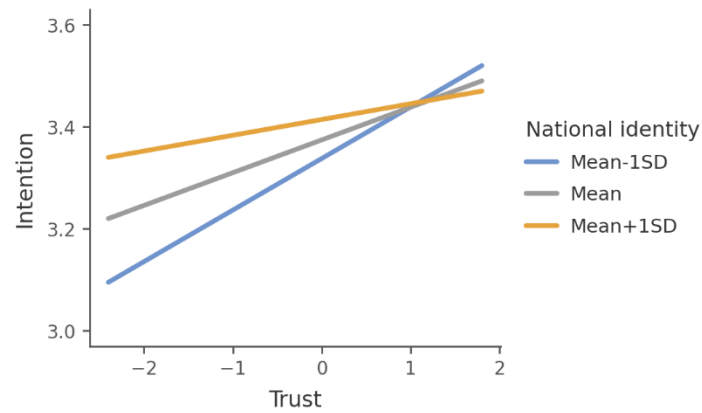


Note. IV = independent variable; M = moderator; DV = dependent variable.

5.5.2 National identity as moderator of risk-paradigm and TPB factors

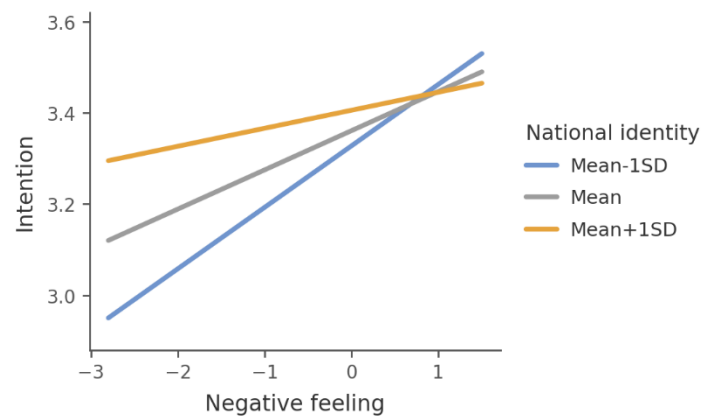
National identity covers more of the model, and here, at least in terms of intention, the parochial logic behind H4 mostly holds. The clearest case is that of trust (Figure 6). Where national identity is weak, trust drives intention sharply upward; where it is strong, the slope all but disappears, and the lines meet at the right edge of the plot. Negative feelings tell the same story with slightly less drama (Figure 7), and the affective charge of climate dread translates chiefly into intentions among those whose national attachment is loose. Knowledge and attitude (Figures 8 and 9) repeat the motif rather than add it. In both cases, the steep line is weakly nationally identified, and the shallow line is strongly identified. Among these four predictors, attenuation is the most common. National identity lifts the intention to a high level, leaving the cognitive and affective inputs little additional work to do and weakening their positive slopes. For appraisal-based pathways to intention, then, H4 is borne out (Cislak et al., 2023).

Figure 6. Trust $\times$ National identity on climate-response intention



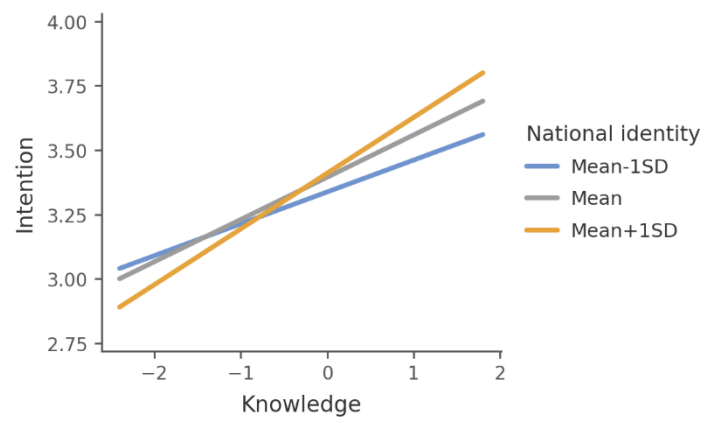
Note. IV = independent variable; M = moderator; DV = dependent variable.

Figure 7. Negative feeling $\times$ National identity on climate-response intention



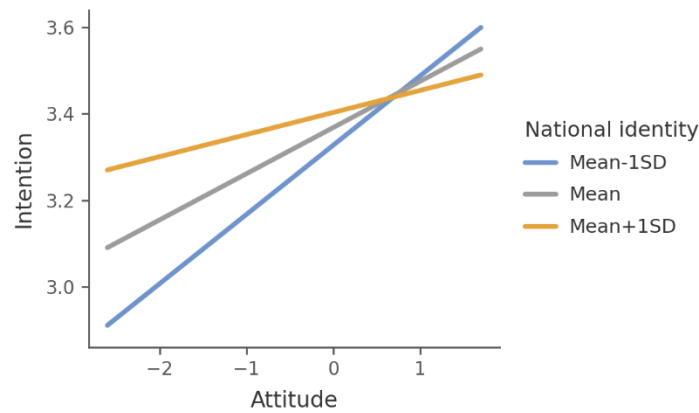
Note. IV = independent variable; M = moderator; DV = dependent variable.

Figure 8. Knowledge $\times$ National identity on climate-response intention



Note. IV = independent variable; M = moderator; DV = dependent variable.

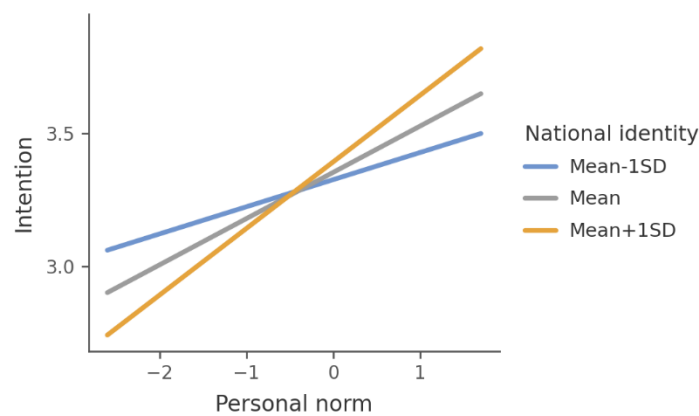
Figure 9. Attitude $\times$ National identity on climate-response intention



Note. IV = independent variable; M = moderator; DV = dependent variable.

Personal norms break this pattern (Figure 10). In this context, the steep line represents individuals with a strong national identity: their sense of moral obligation converts into intention most effectively when national attachment is high, the lines fanning open rather than close. National identity strengthens this pathway, and the exact opposite of what H4 predicted. The contrast between the four preceding figures is noteworthy. National belonging dampens cognitive and affective drivers but amplifies moral ones, as if duty to the nation and duty to the planet draw on the same well (Schwartz, 1977; Stern, 2000).

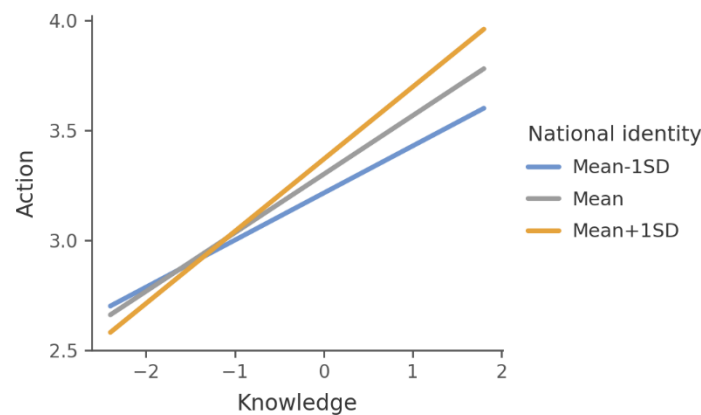
Figure 10. Personal norm $\times$ National identity on climate-response intention



Note. IV = independent variable; M = moderator; DV = dependent variable.

The second exception occurred when the outcome shifted from intention to action. Figure 11 plots knowledge against reported behavior, and the slope is marginally steeper (not flatter) for those strongly identified nationally. Knowledge becomes conduct most readily when it is paired with a firm sense of national belonging. The effect is modest, but its direction matters, as it again contradicts the expected blanket attenuation H4. Together with Figure 10, this data suggest that national identity's dampening hand falls on the appraisal-based route to intention, whereas the channels that carry disposition into actual behavior are left intact or even strengthened. What predicts willingness and what predicts conduct need not coincide (Slovic, 1987).

Figure 11. Knowledge $\times$ National identity on climate-response action



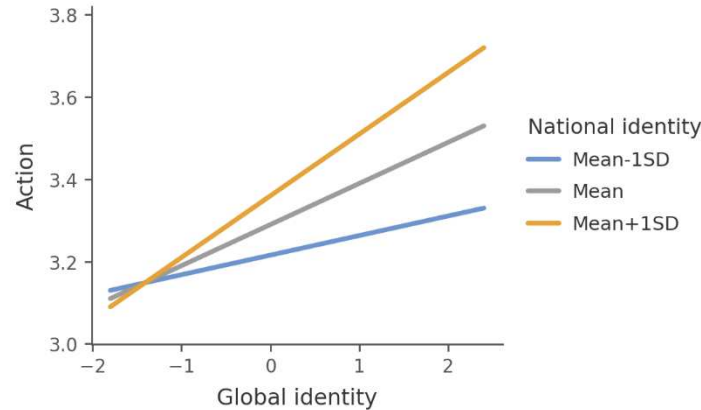
Note. IV = independent variable; M = moderator; DV = dependent variable.

5.5.3 National identity as moderator of global identity

The last interaction, which the study was built to test, produces the sharpest reversal. H5 reasoned that if national identity is parochial and global identity is cosmopolitan, the former should sap the latter's force, and the prediction was a negative interaction. Figure 12 delivers a positive result. As national identity rises, the slope of global identity in action does not flatten but steepens. The high national identity line climbs the fastest, and the three lines splay apart toward the right of the plot. In other words, a sense of shared human fate converts into climate action most fully among people who are also firmly attached to their own country and least among those who are not. The boundary that national identity supposedly draws does not fence off global concern; if anything, it anchors it. Therefore, H5 fails, and it fails by inversion rather than by a null result. That is, the more telling

outcome, because the zero-sum premise behind H3 through H5 cannot be rescued by saying that the effect was merely absent when it ran the other way. Instead, the pattern fits nested identity accounts in which identifying with one's nation and with humanity is layered rather than rival commitments and in which a secure national footing can be the platform from which wider loyalties are enacted (Cislak et al., 2023; McFarland et al., 2012).

Figure 12. Global identity × National identity on climate-response action



Note. IV = independent variable; M = moderator; DV = dependent variable.

5.5.4 Overview of the moderation analyses

Table 5 collates all nine moderation analyses to compare their patterns. For each analysis, the table records the focal predictor, moderating identity, dependent variable, and shape of the interaction (whether the moderator strengthened or weakened the predictor's positive slope). The verdict implies the relevant directional hypothesis. Reading down the table reveals how unevenly the asymmetric expectations fared. Global identity, predicted by H3 to strengthen other pathways, flattens and reverses the trust slope for both intention and action; therefore, H3 is not borne out for the pathway on which global identity acts. The globally identified stay was engaged but independent of trust, rather than responding more to it. National identity behaves in line with H4 for four of its analyses, namely trust, negative feelings, knowledge, and attitude toward intention, where it weakens the positive slope, as predicted. However, it violates H4 for the remaining three, namely personal norms on intention, knowledge on action, and global identity on action, where it strengthens rather than weakens relationships. The interaction between the two identities (Figure 12) is the clearest reversal: H5 predicted that national identity would weaken the effect of global

identity, yet national identity amplifies it.

Table 5. Summary of the nine moderation analyses

Fig.	Predictor (IV)	Moderator (M)	Outcome	Effect on positive slope	Hypothesis verdict	Interpretation
4	Trust	Global identity	Intention	Weakens (flattens)	H3 not supported	Globally identified stay engaged without trust
5	Trust	Global identity	Action	Weakens/reverses	H3 not supported	Trust–action link turns negative at high global identity
6	Trust	National identity	Intention	Weakens	H4 supported	Strong national identity blunts trust effect
7	Negative feeling	National identity	Intention	Weakens	H4 supported	Strong national identity blunts effect
8	Knowledge	National identity	Intention	Weakens	H4 supported	Strong national identity blunts knowledge effect
9	Attitude	National identity	Intention	Weakens	H4 supported	Strong national identity blunts attitude effect
10	Personal norm	National identity	Intention	Strengthens	H4 not supported	Moral duty and national belonging reinforce each other
11	Knowledge	National identity	Action	Strengthens	H4 not supported	Knowledge converts to action best at high national identity
12	Global identity	National identity	Action	Strengthens	H5 not supported	Global concern is enacted most where national identity is strong

Note. Figures 4 and 5 plot trust at low, mean, and high global identity for intention and action, respectively, Figures 6–12 plot the remaining analyses at low, mean, and high national identity. “Weakens” denotes a flatter positive slope at high moderator values; “strengthens” denotes a steeper slope. H3 predicted that global identity will strengthen, H4 predicted that national identity will weaken, and H5 predicted that national identity will weaken the effects of global identity. N = 1,552.

Overall, the nine analyses convey a coherent narrative that only partly matches the asymmetric expectations of H3, H4, and H5. The premise was that global identity, being intrinsically pro-environmental, would strengthen other pathways, whereas national identity, being comparatively parochial, would weaken them and dampen the influence of global identity. The data confirm one strand and overturn two. The weakening role of national identity holds for appraisal-based pathways: trust, affective dread, knowledge, and a favorable attitude all lose force as drivers of intention when national identity is high, exactly as the parochial reading predicts (Cislak et al., 2023; Slovic, 1987). However, the strengthening role attributed to global identity is not borne out because global identity loosens the dependence of engagement on trust rather than amplifying it (Loy et al., 2022). The supposed parochialism of national identity fails in these three telling cases. It reinforces, rather than blunts, the internalized moral route captured by personal norms (Schwartz, 1977; Stern, 2000), the conversion of knowledge into action, and most consequentially, the behavioral expression of global identity itself. These exceptions were not noises. They cluster around morality and the translation of disposition into conduct, suggesting that national identity weakens the cognitive and affective machinery of intention while leaving or even boosting moral and behavioral channels intact. The result is a more qualified picture than the asymmetric premise anticipated, and it reiterates the intention–action distinction seen in direct effects (Bamberg & Möser, 2007).

6. Summary and Discussion

This study set out to adjudicate a widely held belief that a globally scaled identity helps people engage in climate change, whereas a nationally bounded identity hinders it. The evidence presented here complicates that belief in an instructive manner. The findings can be summarized around the five hypotheses (see Table 6).

First, both types of identity matter. Global and national identities predicted climate-response intention and action positively and significantly after a demanding set of controls, supporting H1a and H1b. The two identities were statistically independent of each other; therefore, they were genuinely separate contributions rather than two readings of a single dimension. Second, contrary to our expectations, global identity did not dominate. The two identities were comparable in terms

of intention. National identity was a strong predictor of action. Therefore, H2 was rejected. The notion that planetary concern requires planetary identity and national attachment necessarily narrows the moral circle is contradicted by these data. In a society where national identity is strongly held, and global identity is comparatively weak, national belonging does more of the work of converting disposition into reported behavior. This outcome resonates with accounts in which environmentalism becomes part of the national self-image (Milfont et al., 2020) and national identification carries constructive, pro-social potential (Charnysh et al., 2015).

Third, the moderation results strongly qualify the asymmetric expectations of H3, H4, and H5. H3 held that global identity would strengthen the pathways from other predictors of engagement. Instead, global identity decoupled engagement from institutional trust, flattening, and even reversing the trust slope rather than steepening it; thus, H3 was not supported on the pathway it governs. The globally identified sustained intentions diverged in their actions, independent of whether they trusted government information. This divergence is a substitution effect rather than an amplification of the predicted hypothesis. H4 held that national identity would weaken the same pathways, and here the evidence was mixed. For appraisal-based drivers, namely trust, negative feeling, knowledge, and attitude, national identity weakened the positive association with intention, as predicted; among the strongly nationally identified drivers, these inputs added comparatively little. However, for personal norms and the knowledge-action link, national identity strengthened rather than weakened the relationship, contradicting H4 and indicating that its attenuating influence was confined to cognitive and affective appraisals, not moral motivation. Fourth, H5 predicted that national identity would weaken the effect of global identity, yet the interaction would run in the opposite way. National identity amplified the influence of global identity on action; thus, H5 was not supported, and its sign was reversed. People who most readily translated humanity-wide concerns into behavior were those who also identified strongly with their own nations.

Together, these results overturn the asymmetric premise underlying H3, H4, and H5, which assumed that global identity is uniformly pro-climate while national identity is uniformly parochial, and instead present a more nuanced understanding. National and global identities emerge not as antagonists but as distinct psychological resources that can operate in parallel and even potentiate each other. National identity weakens appraisal-based drivers of intention, as a parochial reading would predict, yet it simultaneously reinforces moral obligation and provides a base from which

global concern is more, not less, readily expressed (Cislak et al., 2023). Global identity, for its part, does not amplify the other drivers but frees engagement from reliance on national institutions, which fits its conceptualization as an identification scale above the nation (McFarland et al., 2012). The clean opposition that the hypotheses assume thus gives way to a picture in which each identity has a specific and partly counterintuitive sphere of influence. The persistent divergence between intention and action, with risk cognition predicting the former far more than the latter, and the descriptive gap between readily endorsed intentions and sparingly reported behaviors reiterate the long-standing intention-behavior gap and caution against treating expressed willingness as a proxy for conduct (Ajzen, 1991; Bamberg & Möser, 2007).

Table 6. Summary of hypothesis tests

H	Statement	Result
H1a	Global identity positively predicts intention and action	Supported
H1b	National identity positively predicts intention and action	Supported
H2	Global identity's effect exceeds national identity's	Not supported
H3	Global identity strengthens the positive effects of the risk-paradigm and TPB predictors	Not supported (it weakens the trust pathway)
H4	National identity weakens the positive effects of the risk-paradigm and TPB predictors	Partly supported (weakens trust, negative feeling, knowledge, attitude on intention; strengthens personal norm and knowledge-action)
H5	National identity weakens the positive effect of global identity	Not supported (it strengthens the effect)

Note. H3–H5 were directional hypotheses derived from the premise that global identity is pro-climate, and national identity is comparatively parochial. The moderation results from the simple slope analyses are summarized in Figures 4–12 and Table 5.

7. Implications and Conclusion

Theoretically, this study contributes to the identity-based account of climate change in three ways. First, it directly tests the asymmetric, zero-sum intuition that global identity is uniformly pro-climate and national identity is uniformly parochial and finds it wanting. This premise generated

three falsifiable predictions (H3 through H5), two of which failed: global identity did not amplify the other drivers, and national identity did not suppress the influence of global identity but magnified it. Therefore, a more accurate model is one of differentiated complementarity rather than opposition, in which the two identities are statistically independent, each independently motivating, and capable of reinforcing one another (McFarland et al., 2012). Second, the study reveals that identity operates not only as a direct motivator but also as a moderator with a specific and partly counterintuitive sphere of influence. Global identity loosens the grip on institutional trust rather than strengthening any pathway, while national identity weakens the cognitive and affective predictors of intention, even though it energizes moral obligation and the behavioral expression of global concern. Third, it adds evidence from an underrepresented society to the literature dominated by Western samples, qualifying generalizations drawn primarily from these settings (Fielding & Hornsey, 2016; Pong & Tam, 2023; Vesely et al., 2021). That national identity amplified, rather than weakened, the effect of global identity is especially instructive. This suggests that the secure-versus-defensive distinction emphasized in recent work (Cislak et al., 2023) may matter more than the global-national distinction itself and that a secure national identity can enable rather than crowd out planetary concern.

Practically, the results imply that climate communication does not need to choose between cosmopolitan and patriotic appeals but should target each identity where it is effective. Because national identity is strongly held and does real motivational work, framing climate action as continuous with national pride, belonging, and moral responsibility is likely to mobilize broad segments of the public, especially older citizens, among whom national identity is the highest and engagement is already strong, echoing evidence that identity loss and national pride framings can raise climate-policy support (Klas et al., 2022; Milfont et al., 2020). As national identity weakens the leverage of trust, affect, knowledge, and attitude toward intention, appeals to the strongly nationally identified who rely on raising risk awareness or supplying information are likely to yield diminishing returns. Moral framing, which reinforces national identity, is a promising approach (Schwartz, 1977; Stern, 2000). Because global identity frees engagement from dependence on institutional trust, cultivating a sense of shared human fate may be especially valuable for sustaining engagement when confidence in government is low and among the young and educated for whom global identity is comparatively salient (Loy et al., 2022). One implication deserves emphasis. The finding that national identity strengthens, rather than weakens, the behavioral

expression of global identity means that the two appeals can be combined, invoking the nation's stake in a shared human future, without pulling against each other. This is contrary to what the zero-sum view would predict and fits the broader observation that public support for climate policy hinges on more than information alone (Drews & van den Bergh, 2016).

Several limitations qualify these conclusions. The data are cross-sectional and self-reported; therefore, the associations cannot establish a causal direction, and reported action is an imperfect index of behavior, a caveat underscored by the gap between intention and conduct in the planned behavior literature (Armitage & Conner, 2001). This analysis reflects a single national setting at one point in time. The comparative strength of national identity observed here may not transfer to contexts where national attachment takes a more defensive form (Cislak et al., 2023) or where global identity is more widely held. The global-identity scale displayed modest internal consistency, which may attenuate its estimated effects. This issue is a recurring measurement challenge for short global-identity instruments (Pong & Tam, 2023). Future research could employ longitudinal or experimental designs to test the causal and complementary dynamics proposed here, distinguish secure from defensive national identities directly, and replicate the comparison across societies that vary in the cultural meaning attached to nationhood and the degree to which environmentalism has been absorbed into national self-image (Milfont et al., 2020; Patterson, 2022).

In summary, the guiding question of whether global identity helps and national identity hinders climate engagement received a qualified and largely negative answer. Global identity helps but does not amplify other motives. This finding frees engagement from its dependence on institutional trust. National identity also helps, sometimes more than global identity, and although it weakens the cognitive and affective drivers of intention, as a parochial interpretation would predict, it strengthens rather than suppresses moral obligation and the behavioral expression of global concern. Therefore, the directional hypotheses built on a clean opposition between the two identities did not survive testing, and the data point instead to two distinct, partly complementary resources. This finding is more hopeful than the asymmetric premise allowed, as it addresses a problem that is both planetary in cause and national in governance. The identities people already hold most strongly need not be obstacles to climate action and may instead be among its most underused resources.

Data availability

Data will be made available upon reasonable request.

Ethics statement

This study was exempt from institutional ethical review in accordance with Article 2, Paragraph 1 of the Bioethics and Safety Act of the Republic of Korea (Act No. 13467)¹. All research was performed in accordance with the relevant guidelines and regulations, including the Declaration of Helsinki and the Bioethics and Safety Act of the Republic of Korea. As the study involved an anonymous, non-interventional online survey of adult respondents and collected no identifiable personal information, it qualified for exemption from review by an Institutional Review Board under the provisions cited above. Participation was voluntary, and informed consent was obtained electronically from all participants prior to their completion of the survey, in which they were informed of the study's purpose, the anonymity and confidentiality of their responses, and their right to withdraw at any time without penalty.

This study was based on an anonymous, voluntary, self-administered online survey (computer-assisted web interview, CAWI) of adults aged 18 years and over, recruited from the Master Sample panel maintained by Korea Research. Before beginning the survey, all participants were presented with information describing the purpose of the study, the voluntary nature of participation, their right to withdraw at any time without penalty, and the anonymous handling of their responses. No personally identifiable or sensitive personal information was collected, and all data were analysed in anonymised, aggregate form.

Given the anonymous and minimal-risk nature of the survey, informed consent was obtained as implied consent: participants who, after reading the study information, voluntarily proceeded to complete and submit the questionnaire were deemed to have provided their consent to participate. Written or verbal informed consent was therefore neither feasible nor necessary for this type of self-completed, anonymous online survey.

The study was exempt from institutional ethical review in accordance with Article 2, Paragraph 1 of the Bioethics and Safety Act of the Republic of Korea (Act No. 13467), which exempts research using anonymously collected information that does not permit identification of individual participants.

¹ https://elaw.klri.re.kr/eng_mobile/viewer.do?hseq=33442&key=36&type=part

Competing Interests

The authors declare no competing interests

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Author Contributions

Appendix A. Moderation analysis

Model 1: Trust × Global Identity = Intention							Model 2: Trust × Global Identity = Action						
	B	SE	beta	B	SE	beta		B	SE	beta	B	SE	beta
Trust	0.074***	0.015	0.09	0.073***	0.015	0.09	Trust	-0.006	0.015	-0.007	-0.003	0.015	-0.004
Global Identity	0.080***	0.021	0.071	0.077***	0.021	0.068	Global Identity	0.101***	0.021	0.094	0.098***	0.021	0.091
Interaction Term				-0.046*	0.021	-0.035	Interaction Term				-0.043*	0.021	-0.035
F-value	125.139***			81.155***			F-value	112.631***			71.427***		
R² square	0.514			0.516			R² square	0.488			0.495		
Adjusted R²	0.51			0.51			Adjusted R²	0.483			0.488		
R² square Change				0.002			R² square Change				0.007		
Simple Slope Test	Low	B = 0.103***, SE = 0.021, t = 4.96					Simple Slope Test	Low	B = 0.025, SE = 0.020, t = 1.217				
	Middle	B = 0.073***, SE = 0.015, t = 4.79						Middle	B = -0.003, SE = 0.015, t = -0.185				
	High	B = 0.044*, SE = 0.020, t = 2.18						High	B = -0.030, SE = 0.020, t = -1.513				
Effect Size	0.004					Effect Size	0.014						

Model 3-1: Trust × National Identity = Intention							Model 3-2: Negative Feeling × National Identity = Intention						
	B	SE	beta	B	SE	beta		B	SE	beta	B	SE	beta
Trust	0.066***	0.016	0.08	0.066***	0.016	0.08	Negative feeling	0.080***	0.023	0.091	0.090***	0.023	0.101
National identity	0.048*	0.019	0.051	0.049	0.020	0.011	National identity	0.048*	0.019	0.051	0.049	0.020	0.011
Interaction term				-0.047**	0.018	-0.081	Interaction term				-0.063*	0.029	-0.055
F-value	123.880***			79.706***			F-value	123.880***			79.706***		
R² square	0.512			0.522			R² square	0.512			0.522		
Adjusted R²	0.507			0.516			Adjusted R²	0.507			0.516		
R² square change				0.01			R² square change				0.01		
Simple slope test	Low	B = 0.101***, SE = 0.021, t = 4.8					Simple slope test	Low	B = 0.138***, SE = 0.032, t = 4.2				
	Middle	B = 0.055***, SE = 0.015, t = 4.21						Middle	B = 0.090***, SE = 0.023, t = 3.95				
	High	B = 0.030, SE = 0.020, t = 1.49						High	B = 0.041***, SE = 0.03, t = 1.38				
Effect size	0.021					Effect Size	0.021						

Model 3-3: Knowledge × National Identity = Intention							Model 3-4: Attitude × National Identity = Intention						
	B	SE	beta	B	SE	beta		B	SE	beta	B	SE	beta
Knowledge	0.170***	0.021	0.171	0.175***	0.021	0.176	Attitude	0.115***	0.023	0.119	0.109	0.023	0.112
National identity	0.048*	0.019	0.051	0.049	0.020	0.011	National identity	0.048*	0.019	0.051	0.049	0.020	0.011
Interaction term				0.059**	0.022	0.045	Interaction term				-0.072**	0.025	-0.057
F-value	123.880***			79.706***			F-value	123.880***			79.706***		
R ² square	0.512			0.522			R ² square	0.512			0.522		
Adjusted R ²	0.507			0.516			Adjusted R ²	0.507			0.516		
R ² square change				0.01			R ² square change				0.01		
Simple slope test	Low	B = 0.13***, SE = 0.026, t = 5.08					Simple slope test	Low	B = 0.164, SE = 0.029, t = 5.69				
	Middle	B = 0.175***, SE = 0.021, t = 8.4						Middle	B = 0.109, SE = 0.023, t = 4.73				
	High	B = 0.22, SE = 0.029, t = 7.93						High	B = 0.054, SE = 0.031, t = 1.73				
Effect size	0.021						Effect Size	0.021					

Model 3-5: Personal Norm × National Identity = Intention							Model 4: Knowledge × National Identity = Action						
	B	SE	beta	B	SE	beta		B	SE	beta	B	SE	beta
Personal norm	0.179***	0.025	0.192	0.183***	0.025	0.196	Perceived Benefit	0.268***	0.020	0.281	0.275***	0.021	0.288
National identity	0.048*	0.019	0.051	0.049	0.020	0.011	National identity	0.101***	0.019	0.112	0.018	0.033	0.015
Interaction term				0.104***	0.027	0.085	Interaction term				0.097***	0.019	0.108
F-value	123.880***			79.706***			F-value	113.318***			71.413***		
R ² square	0.512			0.522			R ² square	0.489			0.495		
Adjusted R ²	0.507			0.516			Adjusted R ²	0.485			0.488		
R ² square change				0.01			R ² square change				0.006		
Simple slope test	Low	B = 0.104***, SE = 0.031, t = 3.35					Simple slope test	Low	B = 0.216***, SE = 0.025, t = 8.58				
	Middle	B = 0.183***, SE = 0.025, t = 7.28						Middle	B = 0.275***, SE = 0.021, t = 13.41				
	High	B = 0.262*, SE = 0.034, t = 7.78						High	B = 0.334***, SE = 0.027, t = 12.24				
Effect size	0.021					Effect Size	0.012						

Model 6: Global Identity × National Identity = Action						
	B	SE	beta	B	SE	beta
Global identity	0.101***	0.201	0.094	0.099***	0.024	0.092
National Identity	0.101***	0.019	0.112	0.096***	0.019	0.107
Interaction Term				0.068**	0.023	0.048
F-value	108.566***			102.457***		
R ² square	0.497			0.5		
Adjusted R ²	0.493			0.495		
R ² square change						
Simple slope test	Low	B = 0.047, SE = 0.027, t = 1.71				
	Middle	B = 0.099***, SE = 0.020, t = 4.83				
	High	B = 0.151***, SE = 0.026, t = 5.74				
Effect size	0.006					

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