



Plate, glass, and social class: How dominance and prestige orientation shape food preferences

Michał Folwarczny^{a,*}, R.G. Vishnu Menon^b, Tobias Otterbring^c

^a University of Galway, Ireland

^b Massey University, New Zealand

^c University of Agder, Norway

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ABSTRACT

Studies suggest that individuals may display their food preferences as vehicles for seeking status: a universal motive across cultures. According to the dual model of status-seeking, individuals attain higher status either through dominance, which involves evoking fear and intimidation, or through prestige, which is achieved by offering valued skills, knowledge, and other behaviors that are seen as benefitting a group. We conducted two studies to test the prediction that choosing pro-environmental foods over environmentally harmful options is associated with prestige rather than dominance, because these choices are perceived to benefit society more than the individual. In Study 1, we found that prestige orientation was positively associated with a preference for foods that were considered sustainable (e.g., apples). There was no such association for dominance orientation. In Study 2, participants considered a manager using prestige tactics to prefer sustainable foods (e.g., a salad) over non-sustainable alternatives (e.g., a burger). In contrast, a manager using dominance was assumed to prefer non-sustainable foods over sustainable alternatives. These results shed light on how various approaches to seeking status influence preferences for sustainable foods. The present findings hold relevance for both theoretical and practical considerations within the broader domain of personality predictors of food preferences.

1. Introduction

Food production is one of the major contributors to climate change (Vermeulen et al., 2012). Thus, the Lancet Commission recommends reducing consumption of foods that are considered harmful to the environment such as meat from ruminants and increasing consumption of plant-based foods deemed as relatively sustainable such as whole grains, legumes, and vegetables (Willett et al., 2019). Food preference, however, is a complex phenomenon. Decades of research have demonstrated associations between personality traits and food preferences (e.g., Goldberg & Strycker, 2002; Lumley et al., 2016; Tankova et al., 1994; Yeo et al., 1997). Despite these academic endeavors, the literature has not extensively explored the role of individual-level tendencies in using specific status-seeking tactics and the inclination toward sustainable eating practices.

Given recent research suggesting that food choices and preferences can signal status and that status hierarchies are ubiquitous in human societies (Anderson et al., 2015; Folwarczny et al., 2023; Otterbring, 2023), this study makes three central contributions. First, we examine

whether trait-level orientations toward dominance and prestige, the two main ways to increase status (Henrich & Gil-White, 2001), are related to food preferences with respect to the environmental impact of those foods. Second, we test whether people occupying high-status positions within organizations who are perceived as either dominant or prestigious are also more (vs. less) likely to include sustainable (vs. non-sustainable) foods in their corporate menus. Finally, we contribute to the dual model of status seeking (Cheng et al., 2010; Henrich & Gil-White, 2001) by showing the applicability of the theory to the context of sustainable food. Together, the present findings hold relevance for both theoretical and practical considerations within the domain of personality predictors of food preferences (Bègue & Vezirian, 2023; Evers et al., 2010; Royal & Kurtz, 2010).

2. Theoretical framework

According to the dominance-prestige account (Henrich & Gil-White, 2001), status seeking occurs in one of two ways: dominance or prestige. Although these strategies are sometimes referred to differently, there is a

* Corresponding author.

E-mail address: michal.folwarczny@universityofgalway.ie (M. Folwarczny).

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consensus in the literature that status seekers use coercive (i.e., dominance-based) or noncoercive (i.e., prestige-based) tactics to increase their relative position within groups¹ (e.g., Andrews-Fearon & Davidai, 2022; Case & Maner, 2017; Case et al., 2021; Cheng et al., 2010; Cheng et al., 2013; Cheng, 2020; Jiménez & Mesoudi, 2019b; Körner et al., 2022; Maner, 2017; Maner & Case, 2016; McClanahan et al., 2022; Redhead et al., 2019, 2021).

2.1. Dominance and food preferences

Dominance is the older of the two strategies for attaining status that humans share with other species and revolves around the use of physical strength, inducing fear, intimidating others, and blocking their access to vital resources as well as redistributing rewards in groups (Chase et al., 2002; Otterbring et al., 2018). Dominance dates back to the common ancestors of humans, and almost all animal hierarchies are established through the use of dominance (Maner, 2017).

Interestingly, even subtle cues of physical formidability such as an upright posture effectively convey dominance (Weisfeld & Beresford, 1982). Status gained through dominance is “seized” by eliciting fear, coercion, and intimidation; thus, dominance is conferred involuntarily (De Waal-Andrews et al., 2015). Dominance arises from agonistic interactions in which those who possess high dominance control the redistribution of benefits and punishments (Chen Zeng et al., 2022). For example, a leader who uses dominance to enforce obedience may threaten to block the professional development opportunities of their subordinates if they do not work overtime against their will. Considering the extensive literature that associates dominance with self-interest rather than group benefits across various decision-making facets, it is plausible that dominance will not be associated with pro-environmental food preferences. This is because pro-environmental goods symbolize altruism and benefit the collective more than any single individual (Griskevicius et al., 2010), with these characteristics not being linked to dominance.

2.2. Prestige and food preferences

Prestige, on the other hand, is a human-specific² strategy for seeking status, and it is phylogenetically the younger of the two paths to status (Henrich & Gil-White, 2001). Prestige is based on the presence of skills, expertise, competencies, and other qualities that are valued by a group (Maner & Case, 2016). Unlike dominance, prestige cannot be acquired by force or coercion and is based on cultural norms of behavior (Barkow et al., 1975).

People accord high prestige to individuals who not only have skills that are valued by a group in a particular area, but also intend to share those skills, thus helping groups achieve their goals (Maner, 2017). Prestige is therefore positively associated with activities such as giving advice, cooperativeness, and altruism (Cheng, 2020). In addition, prestige is conferred for qualities such as athletic, social, and intellectual achievement (Cheng et al., 2010). In some hunter-gatherer societies, the ability to hunt, prepare food, and the willingness to share food signals prestige (Von Rueden et al., 2008).

Individuals who use prestige as a means of gaining status engage in activities that are costly (e.g., they require years of practice to be performed successfully) and beneficial to a group, often requiring expertise in a particular area (Smith & Bird, 2000). Organic food is generally more

¹ Bai (2017) has argued that there is a third pathway for status seeking, virtue signaling (see also Bai et al., 2020; Konuk & Otterbring, 2024), but this account has been debated, and virtue signaling is likely yet another component of a broader category of prestige-based strategies (for a discussion, see Jiménez & Mesoudi, 2019a).

² For a recent discussion of whether nonhuman animals reason about prestige, see Mandalaywala (2022).

environmentally friendly than its non-organic counterparts, although it usually costs more due to limited supply, greater labor inputs, and less efficient post-harvest handling (FAO, n.d.). Thus, caring for planetary health by investing in such foods is costly, yet this type of consumption signals benefits to a group rather than to an individual. Consequently, preferences for pro-environmental foods may serve as viable signals of prestige rather than dominance (see also Cheng & Tracy, 2014). Supporting this notion, Case et al. (2018) found that prestigious, but not dominant, leaders tend to act in ways that resonate with group norms rather than being solely performance-oriented. This tendency to favor group cohesion over individual ambitions could, therefore, promote food preferences that align with collective goals, such as the United Nations' Sustainability Goals (United Nations, 2017), over individual preferences such as taste.

2.3. The current research

Although limited knowledge exists regarding the relationship between orientations toward specific status-seeking strategies and food choices and preferences, several previous studies have examined the related associations. For instance, Otterbring (2018) found that men exposed to highly attractive women, in comparison to less attractive ones, displayed a greater inclination to spend on expensive beverages and meals. Interestingly, this effect did not extend to the classification of food as healthy or unhealthy. Pertinent to the current study, this tendency was in part motivated by their desire to display status (Otterbring, 2018). Additionally, in urban contexts, men are regarded by their peers as more esteemed and altruistic when they prefer organic foods over traditional alternatives (Puska et al., 2016). Similarly, individuals portrayed in images as preferring organic to non-organic food items are perceived as pursuing status primarily through prosocial means (Luomala et al., 2020). Collectively, the extant literature suggests that sustainable food selections and preferences are viewed as markers of status-seeking via prosocial avenues rather than coercive strategies. This observation implies a potential association between prestige and a propensity for environmentally conscious food preferences (Cheng et al., 2013; Folwarczny et al., 2023; Henrich & Gil-White, 2001).

Based on existing research that has examined various psychosocial effects of status-seeking via either strategy, we draw the following predictions. First, we expect dominance to have either no association or a negative association with preference for foods and beverages that are considered sustainable, as dominance is not associated with traits such as altruism or concern for the environment (Henrich & Gil-White, 2001). Prestige, on the other hand, is associated with numerous aspects of prosociality (Cheng et al., 2013); hence, we expect prestige to be positively associated with a preference for foods considered sustainable. This proposition is supported by the fact that sustainability and prosocial traits such as altruism or empathy are significantly associated with sustainability in the contexts of organizational and consumer behavior (Florea et al., 2013; Panda et al., 2020).

3. General method

We conducted two studies that were designed in an open-source, free-use PsyToolkit (Stoet, 2010, 2017). Data were analyzed in R version 4.2.2 (R Core Team, 2022). To ensure data quality and prevent non-human responses from confounding our results, we included “captcha” questions at the end of each study and visually inspected participants' completion times (Eyal et al., 2021). All datasets, data analysis codes, and materials, including PsyToolkit procedure scripts (Stoet, 2010, 2017), have been made publicly accessible via the Open Science Framework (OSF) at: https://osf.io/ar57v/?view_only=e71c6db3d6e94802997141824f56521a. The project was peer-reviewed and deemed low risk (Massey University Human Ethics Notification number: 4000027767). All participants accepted informed consent forms before participating in the studies. Table 1 summarizes the focal

Table 1
Overview of the measures taken in Studies 1 and 2.

Study number	Independent variable	Moderator	Dependent variable
Study 1 (correlational)	15-item Dominance/Prestige Scales (Körner et al., 2022)	The environmental impact of consuming the food (scaled from -100 for <i>very negative</i> to 100 for <i>very positive</i>)	Willingness to consume the product (scaled from -100 for <i>not at all</i> to 100 for <i>very much</i>)
Study 2 (experimental)	Condition: Reading about a dominant or a prestigious manager (between-subjects)	Food type: sustainable or non-sustainable	The fictitious leader's food liking (scaled from -100 for <i>does not like at all</i> to 100 for <i>likes very much</i>)

measures taken in Studies 1 and 2.

4. Study 1

In Study 1, we sought to determine whether individual differences in prestige orientation—rather than dominance orientation—are predictive of a preference for environmentally friendly foods (but not their non-sustainable alternatives). This study covered a comprehensive range of products that were evaluated based on the expected environmental impact of its consumption (i.e., from negative to positive). In addition, Study 1 used a recently validated scale that uniquely measures both dominance and prestige orientations.

4.1. Participants

We recruited 250 US participants who declared no dietary restrictions through Prolific Academic in Wave 1 (Mean age = 39.2, $SD = 13.6$, 50 % females, mean annual income = \$51,500). About 82 % of participants from the initial wave participated in the second wave, three days later through the same crowdsourcing platform ($N = 204$; Mean age = 39.8, $SD = 14.0$, 49 % females, mean annual income = \$51,000). The final sample size was twice that considered adequate in previous studies with similar designs and expected interaction effects (Folwarczny et al., 2021; Folwarczny et al., 2022).

4.2. Materials and procedure

4.2.1. Stimuli

As the stimuli, we used the extended version of the “Food-pics” database, which contains 1213 images (Blechert et al., 2019). Of these, 896 represent foods and beverages that vary in complexity, color, size, and spatial aspects (e.g., a banana, salmon with spinach, orange juice). According to Blechert et al. (2019), the expanded “Food-pics” database offers numerous advantages over many existing datasets that frequently depend on pictures of low quality, exhibit minimal variance in terms of portion size or viewing angles, or pertain to specific settings. The current food image database responds to the global research community's calls for the inclusion of dishes from multiple distinct countries varying in portion sizes and beverages. Consequently, the database encompasses a sufficient variety to be deemed representative of the everyday food landscape of consumers from diverse socioeconomic backgrounds, ethnicities, and eating habits. Such realistic, high-resolution food images strengthen the external and ecological validity of the current research, as called for by several scholars (e.g., Kihlstrom, 2021; Loebnitz et al., 2022; Morales et al., 2017).

The database includes additional information such as image properties (e.g., brightness, contrast) and nutritional profiles estimated for specific items, as well as participants' ratings of palatability, desire to eat, complexity, recognizability, valence, and arousal (Blechert et al., 2014). Five hundred sixty-two images were classified according to the 10 food categories defined by the World Health Organization (WHO; Medawar et al., 2022). To maximize the representation of our selected food items and to remain consistent across food and beverage categories, we intended to select an even number of products from each of the 10 WHO food categories. Thus, we randomly selected 60 images from the dataset because one category (i.e., fish) contained only six observations.

All these foods can be and often are consumed in solitary meal scenarios, as evidenced by the selected food images, which depict items such as a cup of coffee, a salad, apples, steak with vegetables, and cupcakes. Only two of the 60 selected foods, namely a cheeseboard and a vegetable platter with dip, might be considered atypical for solitary consumption.

4.2.2. The pilot study

In our effort to rule out potential confounding by floor and ceiling effects and to assess whether the selected images represented foods and beverages with a substantial variation in terms of the estimated environmental impact associated with consumption of these foods, we conducted a pilot study. Here, 21 US participants (Mean age = 36.2, $SD = 15.7$, 52 % females) recruited via Prolific Academic were asked to indicate “What is the environmental impact of consuming this product?” Participants entered their responses on a 201-point scale ranging from -100 (*very negative*) to 100 (*very positive*). Results of a calculated intraclass correlation coefficient (mean rating, absolute agreement, two-way random effects model) indicated good-to-excellent reliability of participants' ratings, $ICC = 0.90$, 95 % CI [0.85, 0.93] (Koo & Li, 2016; Shrout & Fleiss, 1979). Mean inferred environmental impact ratings of the featured products ranged from -42.5 (negative) to 63.2 (positive). Thus, the product images we selected varied considerably with respect to their perceived environmental impact, with the sliding scale appropriately designed to avoid floor and ceiling effects (grand mean = 9.16, $SD = 21.66$).

4.2.3. Procedure and measures

4.2.3.1. Wave 1. The main study was split into two waves to prevent participant fatigue and confounding one task (assessing environmental impacts associated with product consumption) with another task (indicating desire to consume a product). In Wave 1, participants read the instructions, which informed them that the study was conducted in two waves, three days apart. The first task was to estimate the environmental impact associated with consuming the 60 products using the same sliding scale of -100 to 100, as described above. At the conclusion of Wave 1, participants provided their demographic details.

4.2.3.2. Wave 2. Three days after completing the tasks in Wave 1, participants received an invitation via Prolific Academic to participate in the second part of the study. On a 201-point scale ranging from -100 (*not at all*) to 100 (*very much*), they first indicated their willingness to consume (“How much would you like to consume this product?”) each of the 60 products they had rated three days earlier (see Fig. 1 for an overview of the tasks in Study 1). Next, participants completed the Dominance/Prestige Scale, which captures trait-level orientation toward status-seeking via each of these two strategies (Körner et al., 2022). They indicated the extent to which they agreed with 15 statements on a seven-point scale ranging from 1 (*strongly disagree*) to 7 (*strongly agree*). Six statements captured dominance orientation (e.g., “I intimidate other people.”), whereas nine statements captured prestige orientation (e.g., “Others seek my advice on a variety of matters.”). We averaged responses to items measuring dominance and prestige to form corresponding indices (dominance $\alpha = 0.87$, prestige $\alpha = 0.94$).



Fig. 1. The tasks that participants completed in Study 1.

4.3. Results and discussion

4.3.1. Analytic approach

Given the nested nature of our data, which led to autocorrelations across measurements, we employed linear mixed models for analyses using the *lme4* and *lmerTest* packages in R (Bates et al., 2015; Kuznetsova et al., 2017). Random intercepts were incorporated for both participants and products in all analyses to account for within-participant and within-product dependencies. We standardized (z-scored) all the predictors and the outcome variable to enhance readability.

To test our hypothesis that prestige, but not dominance, *uniquely* interacts with the perceived environmental impact of the food products, we fit a model with prestige and the perceived environmental impact of products as predictors (fixed effects), including an interaction term between these two predictors. Following the analytic approach of previous studies that examined the influence of dominance and prestige on different outcome variables, we also added the dominance index as a covariate in the model (Andrews-Fearon & Davidai, 2022).

4.3.2. Primary analyses

The results of this model showed no main effect of prestige, $\beta = 0.04$, 95 % CI [-0.01, 0.09], $p = .091$, a positive effect of the perceived environmental impact of the food, $\beta = 0.15$, 95 % CI [0.13, 0.17], $p < .001$, no main effect of dominance, $\beta = 0.02$, 95 % CI [-0.03, 0.07], $p = .375$. Importantly, consistent with our theorizing, we found a significant interaction between prestige and the perceived environmental impact of the food, $\beta = 0.02$, 95 % CI [0.00, 0.03], $p = .029$.

To understand the nature of this interaction (see Fig. 2), we performed a simple slopes analysis using the *interactions* package for R (Long, 2019) at high ($M + 1 SD$), medium (M), and low ($M - 1 SD$) levels

of the moderator: the perceived environmental impact of food. The slope of prestige was significant and positive at high levels of the moderator (i.e., sustainable foods), $\beta = 0.06$, 95 % CI [0.01, 0.11], $p = .023$. However, this slope was neither significant at medium levels of the moderator, $\beta = 0.04$, 95 % CI [-0.01, 0.09], $p = .091$, nor significant at low levels of the moderator (i.e., non-sustainable foods), $\beta = 0.02$, 95 % CI [-0.03, 0.08], $p = .344$. To estimate the exact level of the moderator for which the effect of prestige was significant, we calculated Johnson-Neyman (JN) intervals (Spiller et al., 2013) using the same package for R. This analysis, performed on raw data for readability, revealed a significant effect of prestige for products with an estimated environmental impact of 17.05 and higher such as salads, berries, and crisp bread with cream cheese (this estimate ranged from -100 to 100, where 100 represents products whose consumption has very positive consequences for the environment).

4.3.3. Secondary analyses

For completeness, we conducted an analogous analysis in which we replaced prestige with dominance as the focal predictor while including prestige as a covariate in a model. This model revealed no main effect of dominance, $\beta = 0.02$, 95 % CI [-0.03, 0.07], $p = .383$, a positive effect of the perceived environmental impact of the food, $\beta = 0.15$, 95 % CI [0.13, 0.17], $p < .001$, no main effect of prestige, $\beta = 0.04$, 95 % CI [-0.01, 0.09], $p = .089$, and, as expected, no significant interaction between dominance and the perceived environmental impact of the evaluated food, $\beta = 0.00$, 95 % CI [-0.01, 0.02], $p = .758$.

4.3.4. Robustness tests

Food preferences are moderated to some extent by demographic factors such as socioeconomic status, gender, education, and age (e.g.,

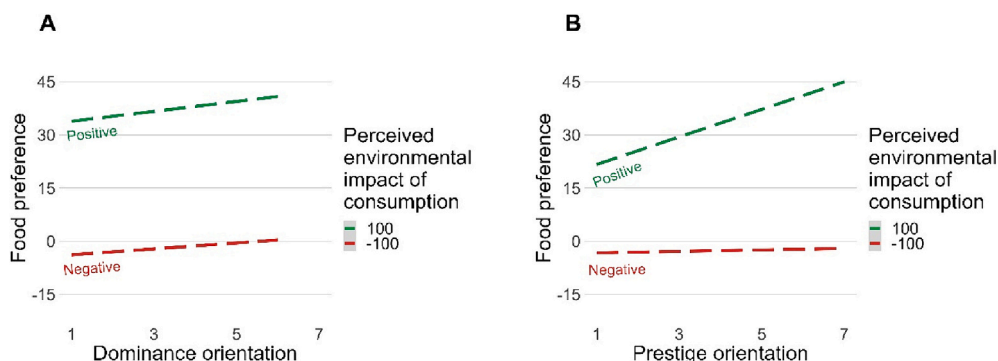


Fig. 2. The interaction effect in Study 1.

Baumann et al., 2019; Drewnowski, 1997; Goldberg & Strycker, 2002). Although we did not measure participants' educational levels, socioeconomic status has been globally found to correlate positively with academic achievement using a variety of measures (Liu et al., 2022). Thus, to exclude these potential alternative explanations for our findings, we conducted robustness tests. Our data collection included several background variables: the 5-item measure of social class by Dietze and Knowles (2016), McArthur's Ladder of Subjective Socioeconomic Status (Adler et al., 2000), and participants' pretax annual income. We incorporated these variables, along with participants' gender and age (all z-scored), into the previously described models. Despite the inclusion of these covariates, the nature and significance of the effects remained unchanged, indicating that prestige interacted with the perceived environmental impact of food, $\beta = 0.02$, 95 % CI [0.00, 0.03], $p = .025$. Consequently, our findings are robust against the inclusion of demographic background variables. Furthermore, incorporating the social status-related variables in an interaction term with our two-way main interaction did not alter the nature or significance of the main findings, $p = .027$.

4.3.5. Discussion

The results of Study 1 provide evidence that prestige—but not dominance—interacts with the perceived environmental impact associated with consuming certain food products, such that status-seeking via prestige is positively associated with a preference for products whose consumption is perceived to have relatively positive impact on the environment. No such effect of prestige was found for foods perceived to be less environmentally friendly, i.e., foods scoring lower than 17.05 on the sliding scale of -100 to 100 in environmental friendliness such as burgers, candies, and roast beef.

5. Study 2

Study 1 found a positive association between prestige orientation and a preference for foods whose consumption is viewed as relatively beneficial to the environment. However, it remains unclear whether people perceive others who seek status through prestige-oriented strategies to choose environmentally friendly foods over non-sustainable alternatives. Echoing the rationale from Study 1, we expected no relationship or possibly an inverse relationship for individuals thought to seek status through dominance (i.e., they may be perceived as preferring non-sustainable over sustainable foods), but a positive relationship between individuals thought to seek status through prestige and their preference for sustainable food products.

5.1. Participants

In Study 2, we sought to maximize the sample size given our budget constraints. We recruited 310 US participants who declared no dietary restrictions through Prolific Academic (Mean age = 39.6, $SD = 13.8$, 47.7 % females, mean annual income = \$46,000).

5.2. Materials and procedure

This study used a mixed design in which the experimental condition (prestige vs. dominance) was a between-subjects factor and the product image (six food pictures) was a within-subjects factor.

5.2.1. Manipulation

Participants read a 250-word story about one of two managers named Taylor, a gender-neutral name used to avoid gender-specific effects. The manager in the dominance condition was described as using coercion, intimidation, and lacking concern about others' opinions with sentences such as "Within the organization, Taylor's name has become synonymous with a heavy-handed management style that leaves little room for dissent or collaboration." On the other hand, participants in the

prestige condition read about a manager who was respected for sharing skills, fostering collaboration, and being empathetic. A sample sentence describing this type of manager read as follows: "Taylor, a manager at a thriving company, is widely admired and respected for inclusive and empowering leadership style."

5.2.2. Stimuli

As per food images, we selected the three products rated highest and the three rated lowest on the environmentally-harmful (e.g., a burger) to environmentally-friendly (e.g., apples) continuum from participants' evaluations in Wave 1 of Study 1. Here, we averaged the responses to the three products representing environmentally-harmful ($\alpha = 0.74$) foods to create an index of non-sustainable foods. The same procedure was applied to the three foods that were environmentally-friendly ($\alpha = 0.90$), which we averaged into an index of sustainable foods. To complete the study, participants provided their demographic data.

5.2.3. Procedure and measures

After reading their assigned 250-word story, participants viewed one of two book covers that showed either a person who looked like a rogue dictator (dominance condition) or a person holding another person's hand and walking a dog (prestige condition). Participants read that this cover depicted Taylor's favorite book, with this procedure serving as a manipulation booster (Gasiorowska et al., 2023; Mittal et al., 2015; Otterbring et al., 2021), after which they were instructed to write a description of the book's contents of at least 200 characters and suggest a book title to further increase the chances that our manipulation triggered desired impressions of prestige and dominance.

To ensure that our manipulation actually created the impression of a fictional character who predominantly used dominance or prestige strategies, we next adapted the 15-item Dominance/Prestige Scale used in Study 1 (Körner et al., 2022). Specifically, we reworded the items so that they asked about Taylor's characteristics. Items were reworded to be gender neutral to avoid gender inferences. For example, an item "Others know it is better to let me have my way" was rephrased as "Others know it is better to let Taylor lead." We created a dominance index by averaging responses to the six corresponding items ($\alpha = 0.94$), and a prestige index by averaging responses to the remaining nine prestige items ($\alpha = 0.96$).

After participants completed the 15-item instrument measuring the fictional leader's assumed dominance and prestige, they had to "guess how much Taylor likes each of these foods." They rated the character's food preferences on a 201-point scale ranging from -100 (*does not like at all*) to 100 (*likes very much*) (Fig. 3).

5.3. Results and discussion

5.3.1. Manipulation checks

As manipulation checks, we tested whether participants in their assigned experimental condition actually perceived the fictitious manager as seeking status primarily through dominance or prestige. Indeed, an independent samples *t*-test revealed that the fictitious manager in the dominance condition ($M = 6.13$) was perceived as more dominance-oriented than the one in the prestige condition ($M = 2.41$), $t(308) = 34.21$, $p < .001$, $d = 3.90$. On the other hand, the fictitious manager in the prestige condition ($M = 6.32$) was perceived as more prestige-oriented than the one described in the dominance condition ($M = 4.32$), $t(308) = -19.61$, $p < .001$, $d = -2.24$. Thus, the manipulation performed as intended.

5.3.2. Analytic approach

Because Study 2 had a similar data structure to Study 1, we followed the analytic approach of the previous study. Also similar to Study 1, we standardized (z-scored) all predictors and the outcome variable to enhance readability. To test our main prediction, we fit a linear mixed model with food preference as the outcome variable, the experimental

condition (dominance vs. prestige) and food type (sustainable vs. non-sustainable) as predictors (fixed effects) with an interaction term between the two predictors.

5.3.3. Primary analyses

The results of this model revealed that food preference was generally lower in the prestige condition than in the dominance condition, $\beta = 0.15$, 95 % CI [0.11, 0.20], $p < .001$. There was no main effect of food type, $\beta = -0.07$, 95 % CI [-0.32, 0.18], $p = .633$. Importantly, consistent with our prediction, there was a significant interaction between the experimental condition and food type, $\beta = 0.48$, 95 % CI [0.45, 0.52], $p < .001$.

To understand the nature of the interaction, we performed a simple slopes analysis as described in Study 1. For non-sustainable foods, the slope of the experimental condition was significant and negative, $\beta = -0.33$, 95 % CI [-0.38, -0.27], $p < .001$, indicating that the dominant manager was seen as preferring non-sustainable foods to a greater extent than the prestigious manager. For sustainable foods, on the other hand, the slope of the experimental condition was significant and positive, $\beta = 0.64$, 95 % CI [0.58, 0.69], $p < .001$, indicating that the prestigious manager was perceived as preferring sustainable foods to a greater extent than the dominant manager (Fig. 4).

5.3.4. Robustness tests

Following the approach used for robustness verification in Study 1, we incorporated the same sociodemographic variables into our model as covariates, including subjective socioeconomic status, income, social class, gender, and age. The nature and significance of the results remained unchanged despite the inclusion of these covariates: the experimental condition continued to interact significantly with food type, $\beta = 0.48$, 95 % CI [0.45, 0.52], $p < .001$. This consistency underscores the stability of our findings against potential demographic influences. Moreover, the inclusion of variables related to social status as part of an interaction term with the primary two-way interaction did not alter the nature of the primary interactional effect either, $p < .001$.

5.3.5. Discussion

Overall, Study 2 provided further evidence for the prediction that prestige, rather than dominance, is positively associated with a preference for sustainable foods. If anything, the results of Study 2 indicate that dominance is linked to a stronger preference for non-sustainable foods.

6. General discussion

The present research shows that individual difference in prestige orientation is positively associated with a preference for foods perceived

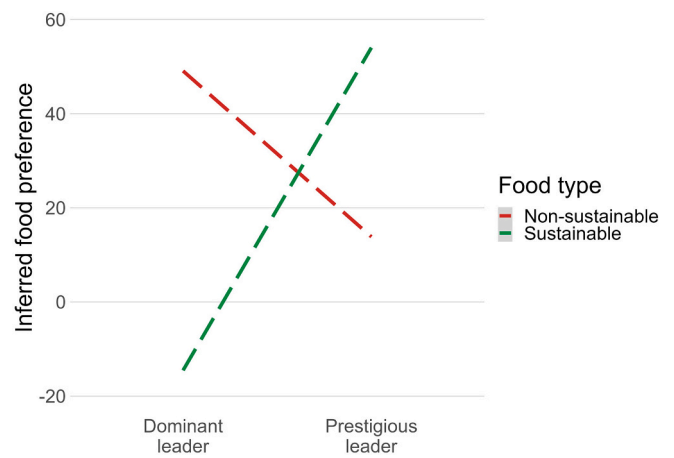


Fig. 4. The interactional effect in Study 2.

as sustainable, but not for foods perceived as non-sustainable. Importantly, this pattern is reversed for dominance orientation, where estimated food sustainability is rather related to preferences for non-sustainable foods. Overall, the data suggest that prestige, but not dominance, is positively associated with a preference for sustainable foods.

Taken together, the current results show that the dominance-prestige account of status seeking, which has traditionally been applied to understand how human group dynamics are established in contexts unrelated to food (Andrews-Fearon & Davidai, 2022; Barkow et al., 1975; Case et al., 2021; Cheng et al., 2013; Cheng & Tracy, 2014; De Waal-Andrews et al., 2015; Henrich & Gil-White, 2001; Jiménez & Mesoudi, 2019a; Kakkar et al., 2020; Körner et al., 2022; Maner & Case, 2016; McClanahan et al., 2022; Panchal & Gill, 2020; Redhead et al., 2019; Von Rueden et al., 2011; Winegard et al., 2014), is generalizable to the domain of sustainable food preferences. The current findings broaden the scope of dominance-prestige account originally by Henrich and Gil-White (2001) by demonstrating its applicability beyond group dynamics to the domain of food preferences. This extension represents a novel application not explored in the original theory and provides valuable insight into how prestige and dominance orientation may influence consumers' food preferences.

Hence, our research contributes to the understanding of interpersonal relationships by showing that status hierarchies of prestige and dominance are not limited to interpersonal interactions, but are also present in the marketplace, where the choices people make about products can have a broader social and environmental impact (Otterbring & Folwarczny, 2022). This complex understanding of



This book is Taylor's favorite. Based on what you learned about Taylor earlier, write about what might be in this book. Use at least 200 letters (about 5-6 sentences).

"How much does Taylor like this product?"

Does not like at all 14 Likes very much

Fig. 3. The tasks that participants completed in Study 2.

interpersonal relationships can also help influence consumer behavior toward sustainability, as we demonstrate that people who seek status via prestige may be more likely to behave in environmentally friendly ways.

Food preferences and choices are a complex and multifaceted element of human behavior that is influenced by a wide variety of individual-level variables (Sobal et al., 2014). Whereas previous research has made great strides in understanding the factors that shape these preference patterns and how these signal status (Anderson et al., 2015; Folwarczny et al., 2023), little attention has been paid to the role of orientations toward prestige and dominance in what ends up on our plates. Although these orientations do not independently predict food preferences, perceptions of the environmental impact of food consumption, whether positive or negative, interact with the levels of prestige orientation in shaping food preferences.

The findings have implications for policy makers and organizations seeking to promote sustainable eating habits. They can be used to design campaigns and interventions that portray sustainable choices as symbols of prestige that are appealing to some people's desire for recognition and social status (Konuk & Otterbring, 2024). In addition, our research highlights the importance of status hierarchies in interpersonal relationships and their impact on food preferences by showing that individuals can signal their social position through their food choices, with sustainable eating habits being one such signal (Folwarczny et al., 2023). Practitioners can create and leverage social norms by demonstrating how a growing number of people make sustainable choices. Such social proof and peer perceptions can influence decision making toward sustainable behavior (Venema et al., 2020).

7. Limitations and future research

Future research should examine the mediating factors that explain the relationship between prestige and food preferences to enable targeted interventions to promote sustainable choices. As such, the current research has not investigated the psychological mechanisms responsible for shifts in food preferences as a result of prestige versus dominance orientation.

Although Study 1 found that individual differences in participants' prestige orientation predicted more sustainable food preferences, Study 2 was restricted to third-person perceptions of sustainable (vs. non-sustainable) food preferences as a function of experimentally manipulated prestige (vs. dominance) orientation. Hence, a natural extension would be to examine whether similar situational manipulations could also influence participants' own food preferences in a prosocial direction or, alternatively, whether individuals' dispositional prestige (vs. dominance) orientation acts as a stable anchor, thereby precluding the possibility to momentarily shift consumer preferences toward more sustainable food options through experimental manipulations.

Another fruitful avenue for future research is to test our theorizing under more ecologically valid conditions, beyond the computer screen, to investigate whether our obtained effects also apply to, for example, naturalistic consumer choice between more or less sustainable food options or increased spending on eco-labeled products in actual shopping settings such as restaurants or grocery stores (Gidlöf et al., 2021; Machin et al., 2020; Otterbring, 2021). Such investigations are particularly relevant given the rarity of capturing consumer responses "in the wild" using behavioral evidence instead of stated preferences or self-reported responses (Gneezy, 2017; Otterbring et al., 2023; Simester, 2017).

The generalizability and replicability of our findings might be somewhat limited by the selection of stimuli. Although we aimed to select a database that reflects the daily food landscape typical in solitary consumption scenarios, the expanded "Food-pics" dataset was developed by researchers primarily from German-speaking countries who recruited participants mainly from Germany (Blechert et al., 2014; Blechert et al., 2019). We believe that our selection of 60 foods from this database includes products frequently consumed by our target sample of

US participants; however, certain foods, such as pickles or summer sausages, might not be universally representative. Additionally, even though we screened our participants to ensure they reported no dietary restrictions, we cannot ascertain with certainty that the foods presented were actual options in their diets. If they were not, then their food preference estimates may have been influenced by their dietary habits. Future research should collect more detailed information regarding participants' dietary habits to minimize the possibility that such confounders influence the results.

The foods selected in our studies likely varied greatly in terms of healthiness. For instance, in Study 2, foods categorized as environmentally harmful were typically high in cholesterol (e.g., summer sausage), whereas foods considered environmentally friendly were low in calories and rich in fiber and vitamins (e.g., berries). Consequently, it is plausible that prestige (as opposed to dominance) is linked not only to pro-environmental food preferences but also to a preference for foods perceived as healthy. Our current dataset does not allow for a thorough examination of these proposed pathways; therefore, further research is necessary to differentiate between food healthiness and pro-environmental attributes. Nonetheless, it is probable that these constructs are interconnected, as generally, foods beneficial to the planet also tend to be healthful, whereas foods contributing to environmental degradation often have adverse health effects (e.g., Perkovic et al., 2022; Perkovic & Orquin, 2018; Willett et al., 2019).

Although Study 1 adopted a correlational approach, Study 2 employed a between-subjects experimental design, reinforcing the idea that prestige, rather than dominance, positively influences preferences for pro-environmental food products. However, beyond basic socio-demographic factors, our research did not account for numerous potential confounding variables. For instance, cultural factors and individual differences in environmentalism influence food preferences, with the latter showing a positive correlation with agreeableness (Cantarero et al., 2013; Hirsh & Dolderman, 2007). Regarding the latter, prestige (unlike dominance) is also positively correlated with agreeableness. Therefore, it is conceivable that environmentalism or related constructs may account for some of the variance observed in our results. Future research should aim to control for such potential confounding factors.

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CRediT authorship contribution statement

Michał Folwarczny: Writing – original draft, Visualization, Methodology, Formal analysis, Data curation, Conceptualization. **R.G. Vishnu Menon:** Writing – review & editing, Funding acquisition, Conceptualization. **Tobias Otterbring:** Writing – review & editing, Methodology, Conceptualization.

Declaration of competing interest

The authors declare that they have no known competing financial interests or personal relationships that influenced the work reported in this paper.

Data availability

Data can be made available upon a request submitted to the first author.

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