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# Political orientation, neophobia and sustainable food: are there differences between countries? A study between Italy, Finland, and Norway.

**Orientamento politico, neofobia e alimentazione sostenibile: ci sono differenze tra paesi diversi? Uno studio tra Italia, Finlandia, e Norvegia.**


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**Abstract**

The effects on the environment caused by overconsumption and overproduction are increasingly evident. The most glaring ones are observed on the climate, which is why we speak of climate change. At the origin of it is human action, which has led to the emission of increasing amounts of CO2. According to experts, in order to counter the environmental effects, it is necessary to drastically reduce CO2 production, and, in the second half of the century, achieve carbon neutrality. This transition requires a radical change in the way people produce, consume, travel, and represents the greatest challenge modern society has ever faced. Food, in particular, is responsible for producing more than 1/4 of all gas emissions and accounts for a large part of our lives. The production of animal products, specifically, accounts for 58 percent of emissions, and half of them, come from beef and lamb production. In order to promote a transition to sustainable food, it is essential to understand human behavior. To date, in the literature, there are only fragmentary studies considering some of the determinants of sustainable eating, although there are models that explain the most influential variables in sustainable behavior more generally. Because of its importance, the present correlational study is aimed at studying some of the likely determinants of sustainable eating, focusing in particular on the role that political orientation and neophobia play in sustainable food choices, specifically in this context, in reducing meat consumption favoring some alternatives (legumes and veggie burgers). The study was conducted in Italy, Finland and Norway using an online questionnaire. The results showed that the effect of political orientation on the intention to reduce meat consumption is mediated by food neophobia (the aversion to consuming unfamiliar food), in Italy and in Norway, but in Finland this mediation was not significant. The same mediation tested on the intention to increase consumption of alternatives to meat is significant in both Italy and Norway, but not in Finland. Future studies need to consider the role of food neophobia in order to promote awareness campaigns to encourage consumption of more sustainable foods, and thereby reducing food neophobia.

*Keywords:* meat consumption, political ideology, neophobia, political psychology, sustainability.

# Chapter 1

## The psychology of sustainable behavior

### 1.1 Introduction

Nowadays, the environmental effects caused by excessive consumption and production that now characterize our societies are increasingly evident. The most glaring ones can be seen on the climate, which is why we speak of climate change: global warming, increasingly extreme and frequent weather phenomena, are just some examples. The summer of 2022 was the hottest ever recorded in Europe.

At the origin of climate change is therefore human action, which has led to more and more fossil fuels (coal, oil, gas) being emitted. Indeed, the earth entered a new stage, called Anthropocene, where the change of the Earth System is mainly driven by humans (Rockström et al., 2009).

The concentration of CO2 is what causes the continuous rising of temperatures, which in turn makes floods, droughts, hydrogeological disruption, the spread of diseases, the crisis of agricultural systems, water crises, and the extinction of animal and plant species more and more frequent (WWF, n.d.).

In 2009, Johan Rockström and collaborators decided to develop the nine planetary boundaries framework (see figure 1.1), to estimate and quantify boundaries levels that cannot be overcome to respect the correct functioning of the Earth System. The planetary boundaries approach takes into account three different aspects. The first one considers human action and the capacity of the earth to support it; the second one focuses on the earth system processes while the last one is related to the concept of resilience.

The identified key processes that regulate the stability of our planet are nine. Climate change is just one of those boundaries while the others are: biodiversity loss, ocean acidification, ozone depletion, atmospheric aerosol pollution, freshwater use, biogeochemical flows of nitrogen and phosphorus, land-system change, and release of novel chemicals. If those boundaries are not respected, damage to the environment will be deleterious and catastrophic for human well-being.

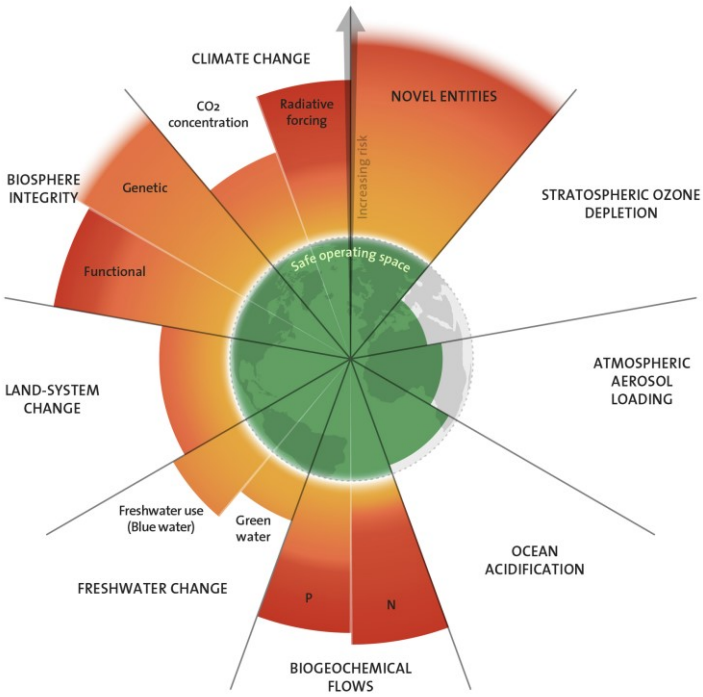


*Figure 1.1 The nine planetary boundaries. from* Stockolm Resilience Centre https://www.stockholmresilience.org/research/planetary-boundaries.html

At the moment, six of the nine planetary boundaries are already outside the safe operating space: climate change, biodiversity, land-system change, release of novel chemicals, biogeochemical flows (nitrogen and phosphorus imbalance) and freshwater use (Richardson et al., 2023).

Climate change is just one of them and it has been under discussion for several years. The 21st of March 1994 the United Nations Framework Convention on Climate Change created an international environmental treaty to contrast human action over the earth system in order to prevent dangerous interference. It was first signed by 154 states, currently 197 states are part of it. The Convention's main objective is to stabilize the amount of greenhouse gasses "at a level that would prevent dangerous anthropogenic (human induced) interference with the climate system" (United Nations Framework Convention on Climate Change, n.d). According to the document, "such a level should be achieved within a time-frame sufficient to allow ecosystems to adapt naturally to climate change, to ensure that food production is not threatened, and to enable economic development to proceed in a sustainable manner" (UNFCCC, n.d). The adoption of the Paris Agreement during the 21st session of the Conference of the Parties (COP21) in 2015 stands as the most recent significant achievement in the United Nations' efforts to address

climate change. Article 2 “Long-term temperature goal” of the Paris Agreement requires Parties to strive toward two temperature goals: limiting the rise in the average global temperature to 1.5°C above pre-industrial levels and keeping it well below 2°C. Now, the Earth is 1.1 °C warmer than the 1800s.

A further objective for the second half of the century is to achieve global net-zero emissions, which means balancing the amount of greenhouse gas emissions released in the atmosphere with the amount removed from it. This condition is known as carbon neutrality and involves making no net contribution to the production of greenhouse gasses in the atmosphere (UNFCCC, n.d.). Emissions must be reduced by 45% by 2030 and net zero by 2050.

More than 70 nations have established a net-zero goal. Between those, Finland has committed to reach carbon neutrality by 2035, Norway and Italy by 2050. Despite these commitments and diplomatic activities, experts say we are not doing enough to prevent climate catastrophe. The transition to a net-zero planet requires a radical change in the ways we produce, consume, travel; indeed, it represents the biggest challenge modern society has ever faced. In order to change people’s behavior, it is necessary first to understand the determinants of their decisions and actions (Klockner, 2013) and psychology, as its main interest, can help us to understand what can be done to change people’s behavior in a more environmental way. Pro-environmental behavior - or sustainable, green behavior - refers to actions individuals take to protect and preserve the environment, in order to impact it as little as possible.

## 1.2 Meat consumption

Between sustainable behaviors, house, transportation and food represents the main categories where people’s decisions can make the difference in terms of ecological footprint. Within the food category, meat and dairy products have the highest impact on the environment; of meat, beef and lamb have the most damaging effects (see figure 1.2). The agri-food industry, indeed, is one of the major GHG emitters, producing more than one-third of the global greenhouse gas emissions. More than half of those emissions are related to the production of animal-based foods (including the production of livestock feed; Bimbo, 2023). The production of livestock feed accounts for about 14.5 % of worldwide GHG emissions and it is the largest emitter of methane, a dangerous

greenhouse gas (Kwasny et al., 2022).

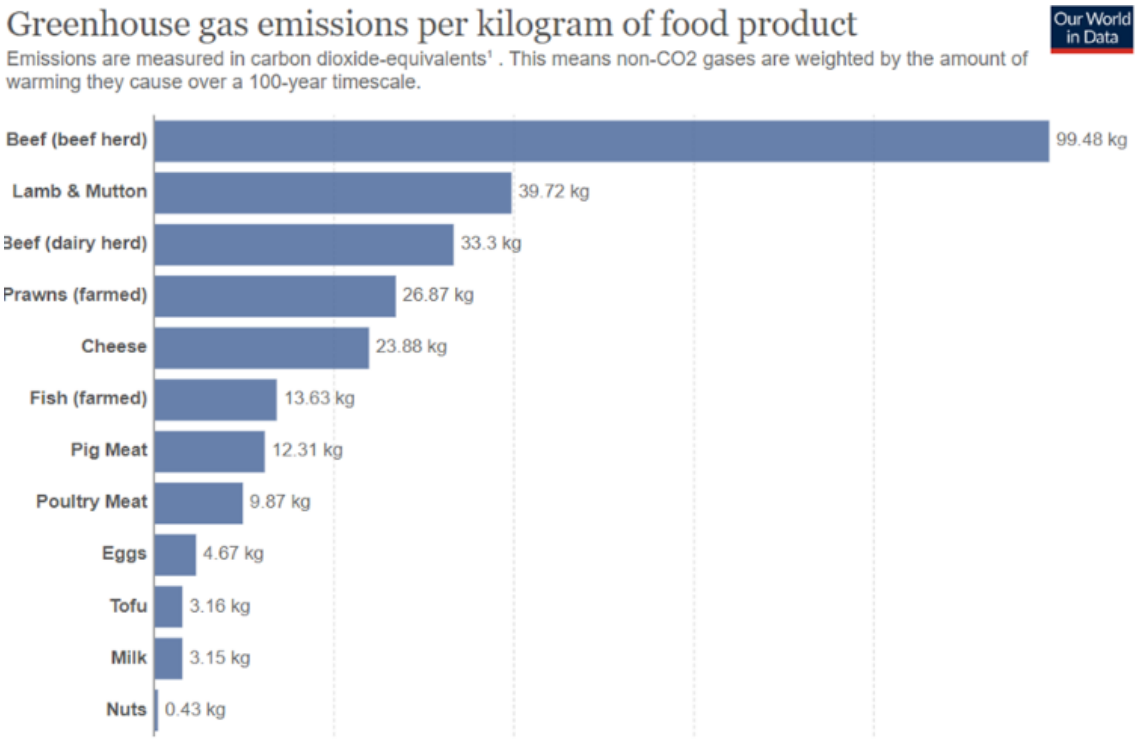


*Figure 1.2: Greenhouse gas emissions per kilogram of food product (from* Ritchie & Roser, 2020)

The demand for meat has been steadily increasing across the world; since 1961, meat production has more than quadrupled, reaching over 340 million tonnes annually. Nowadays, Asia represents the largest producer, accounting for 40-45 percent of the total. However, this distribution has significantly changed over time. In 1961, Europe and North America held the dominant positions, accounting for 42 percent and 25 percent of meat production, respectively. At that time, Asia only produced 12 percent (Ritchie et al., 2017).

### 1.2.1 Per capita meat consumption

Examining per capita meat consumption, there are diverse trends across countries. On a global scale, per capita meat consumption has risen by approximately 20 kilograms since 1961, reaching an average of around 43 kilograms per person in 2014. This indicates that meat production has been growing at a faster rate than population growth (Ritchie et al., 2017).

### 1.2.2 Which countries eat the most meat?

There are significant differences in the direction and rate of change in per capita meat consumption among nations. China and Brazil, two nations that have undergone considerable economic change, have had enormous growth, with China's per capita spending increasing by about 15 times since 1961. The exception is India, where meat consumption per capita has remained at less than 4 kg per person since 1961 due to the country's main vegetarian tastes. High-income nations, especially Australia, have the greatest meat consumption rates; in 2013, Australians consumed almost 116 kg of meat per person. On average, people in Europe and North America consume about 80 kilos and more than 110 kilograms, respectively. However, the expansion of consumption patterns in high-income nations has been slower (Ritchie et al., 2017).

### 1.2.3 Meat consumption in Italy, Norway and Finland

As target countries of our study, meat consumption per person has been calculated. As the figure 1.3 shows, meat consumption across those countries is similar. If we just consider meat, and not fish, in 2020 Italy and Finland consumed the same amount of meat, 71 kg, while Norway 67 kg.

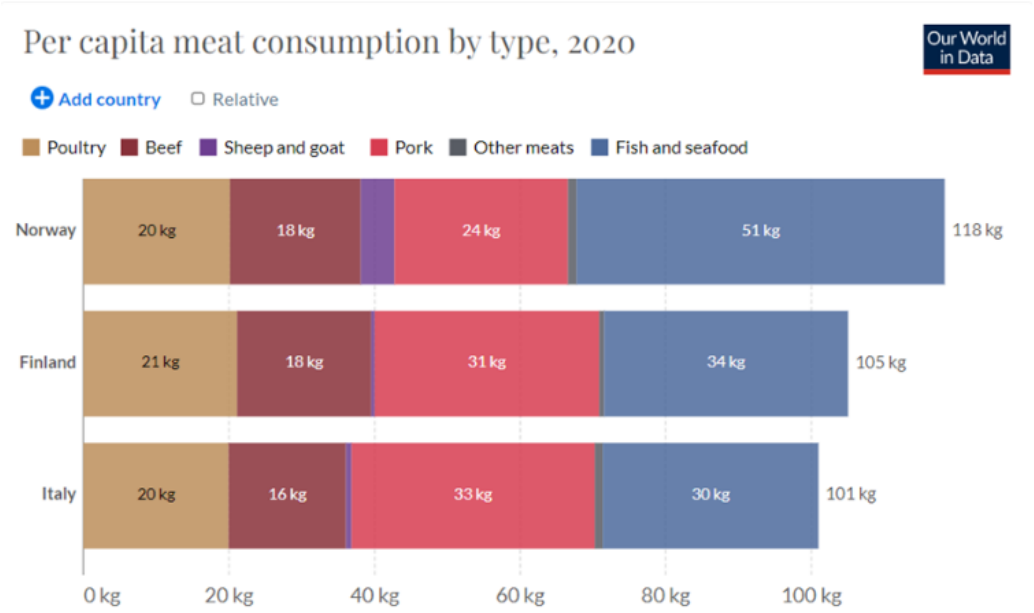


*Figure 1.3: Per capita meat consumption by type, 2020. Data refers to meat accessible for consumption.* Our World in Data

https://ourworldindata.org/grapher/per-capita-meat-type?country=NOR~FIN~ITA

The EAT-Lancet Commission has emphasized the importance of reducing the consumption of animal-based foods and increasing the consumption of plant-based foods to achieve healthy nutrition goals within sustainable limits. “Transformation to healthy diets by 2050 will require substantial dietary shifts. Global consumption of fruits, vegetables, nuts and legumes will have to double, and consumption of foods such as red meat and sugar will have to be reduced by more than 50%. A diet rich in plant-based foods and with fewer animal source foods confers both improved health and environmental benefits” (EAT, 2019). Nevertheless, many people are still reluctant to try plant-based alternatives. This lack of action will result in the world failing to achieve the UN Sustainable Development Goals (SDGs) and fulfill the commitments of the Paris Agreement. The Commission, composed of 37 scientists from several countries and specialized in human health, agriculture, political sciences and environmental sustainability, presented a global planetary health diet: sustainable for the planet and healthy at the same time. The diet, as shown in the figure 1.4, is a “flexetarian” diet as fish and meat are included, even though in small quantities (from EAT-Lancet ).


*Figure 1.4: Eat-Lancet Commission diet.* Eat-Lancet Commission

https://eatforum.org/content/uploads/2019/07/EAT-Lancet_Commission_Summary_Report.pdf

Food choice is an essential part of the shift to a sustainable diet; depending on the food we decide to eat, different nutrients will enter our body and will influence our health. Several factors are implicated in choosing food. The food choice process model (Falk et

al., 1996; Furst et al., 1996; Connors et al., 2001) illustrates the factors involved in this selection (see figure 1.5).

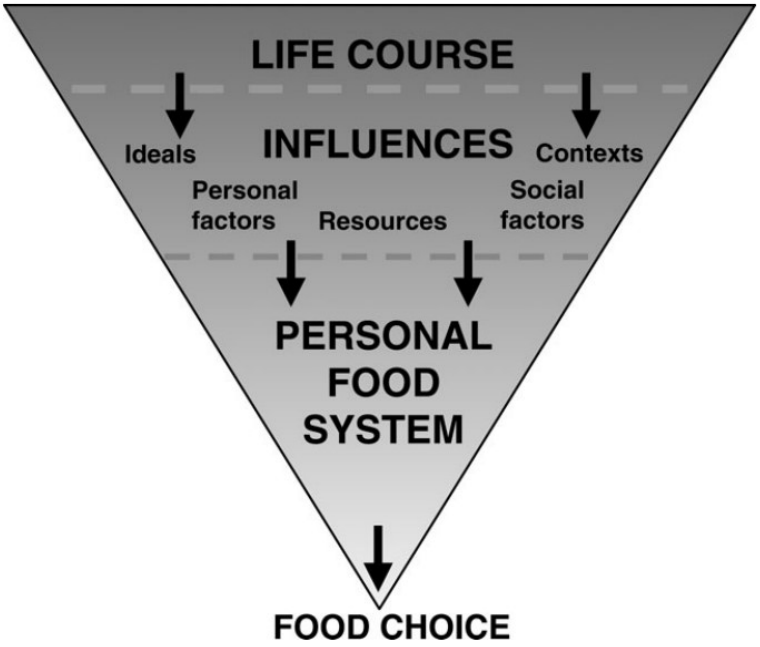


*Figure 1.5: A food choice process model.* (adapted from Falk et al., 1996; Furst et al., 1996; Connors et al., 2001).

Three main components appear: the life course, influences and personal system. Life course comprises all the changes of diet over time; every time a person tries a new type of food, it becomes a part of their life journey and influences the choices they make about food in the future. According to the model, influences impact food choice. Five types of influences have been described: ideals, personal factors, resources, social factors and contexts. Ideals are the standards about what and how we should eat and are related with the culture of belonging. Personal factors refer to personal characteristics of people that affect food choices. Resources are available tools to make food choices and they can be tangible physical capital such as money, equipment; intangible human capital as time, knowledge; intangible social capital as help from other people. Social factors are represented by relationships: groups, networks, families. Context is the environment where food choices occur. This can be physical surroundings, social institutions and policies (Sobal et al., 2006).

In the following paragraph, we will analyze in more detail some of the theories related to pro-environmental behaviors.

## 1.3 - Theories in environmental psychology

In literature, there are several theories that tried to explain the determinants of sustainable behaviors; in 2013, Klöckner presented a model of determinants of individual environmentally relevant behaviors, in which the most known theories in the field (described below) were integrated: the Theory of Planned Behavior (TPB, Ajzen, 1991), the Norm Activation Theory (NAT, Schwartz and Howard, 1981) and the Value-Belief-Norm-Theory (VBN, Stern, 2000).

### 1.3.1 The theory of planned behavior

The Theory of Planned Behavior (TPB; Ajzen, 1991) affirms that what we do (the behavior) is a function of our intention. The intention depends on attitudes toward the behavior, on the perceived behavioral control in the situation, and on the subjective norms. Attitudes are based on beliefs about the costs and benefits of behavior, while perceived behavioral control refers to the perceived ability to perform the behavior, that is, how easy or difficult the behavior can be implemented. Subjective norms reflect the degree to which a person thinks that significant individuals would approve or disapprove their behavior (social pressure). The image 1.6 illustrates the TPB.

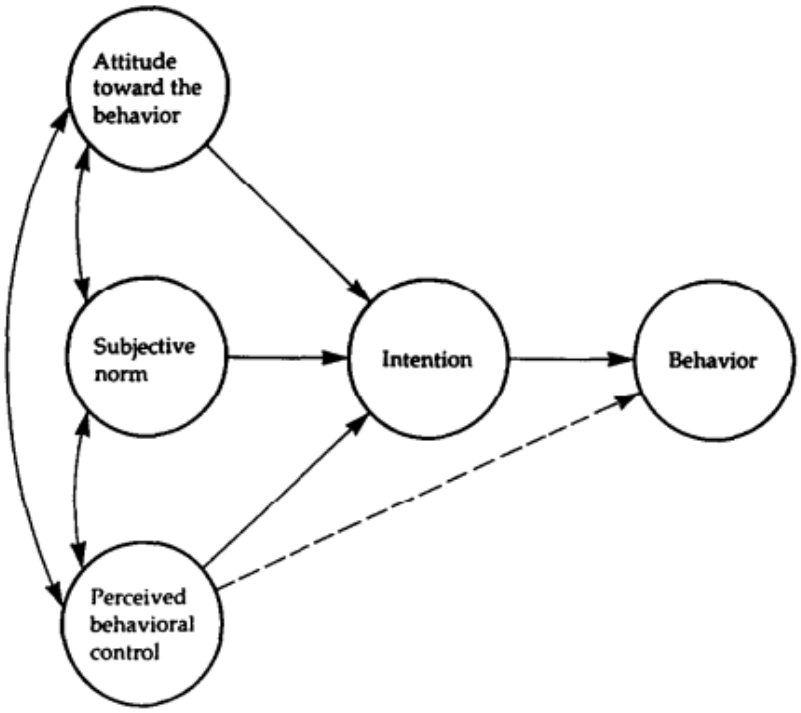


*Figure 1.6: The Theory of Planned Behavior (*Ajzen, 1991).

The TPB assumes that all other factors, such as socio-demographics and values, influence behavior indirectly, via attitudes, subjective norms, and perceived behavioral control. The predictive power of the TPB increases when other motivational predictors are included in the model, for example, personal norms.

### 1.3.2 The norm activation model

The norm activation model (NAM; Schwartz 1977; Schwartz and Howard 1981) postulates that pro-environmental actions come from the activation of personal norms, which are moral obligations. Personal norms reflect the personal value system in a specific situation, and they can be activated by four factors:

- problem awareness (or awareness of need);
- ascription of responsibility, which is feeling personally responsible for problems;
- outcome efficacy, which refers to the belief that the actions adopted will reduce the relevant problem. The more people expect that others will engage in the actions, the more they will be willing to do the same;
- self-efficacy, which refers to the ability to engage in certain actions.

### 1.3.3 The value-belief-norm theory of environmentalism

The value-belief-norm theory of environmentalism (VBN theory; Stern, 2000) is an extension of the NAM. The VBN theory postulates that problem awareness depends on values and ecological worldviews. Ecological worldviews refer to a way of thinking about the environment that is aware of the limited resources, that does not want to control nature and that is aware that human activities harm the environment. This worldview is positively related to values such as biospheric, altruistic and self-transcendent, while it is negatively related to egoistic and self-enhancement values. We will go through Schwartz' value system in detail in Chapter 2.

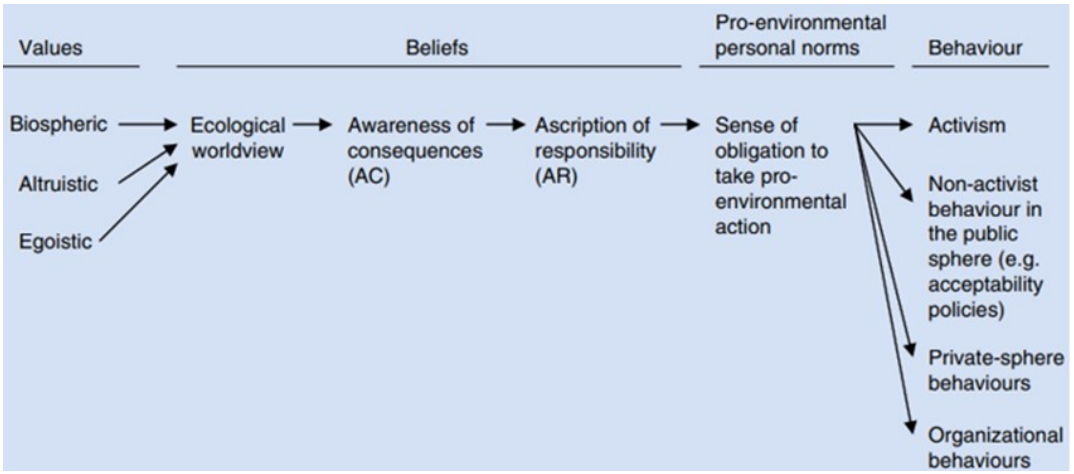


*Figure 1.7: Schematic representation of variables of the value-belief-norm theory of environmentalism* (Stern, 2000).

Ecological worldviews predict problem awareness, which next influences one's beliefs on whether one can act to reduce the environmental threat, personal norms, and subsequently behavior. Indeed, every variable is related to the next one in the causal chain, as illustrated in Figure 1.7. In short, the relationship between values and environmentalism is mediated by specific beliefs.

### 1.3.4 The comprehensive action determination model

In 2013, Klockner developed an integrated model, namely the comprehensive action determination model, aiming at addressing the limitations of the single models and that could be applied to a wider range of situations.

The CADM (Klockner, 2013) integrates habits strength as a predictor of intention, as we can see from Figure 1.8. The reason behind that is because habits are a big part of what causes climate action, as they are automatism, and thus very hard to change. They are defined as automatic responses to specific situations, and they form through the repetition of a particular behavior in the same situation, with the individual receiving reinforcement for it. The level of habit formation in a behavior can be evaluated on the bases of how often it occurs and how much people are habitualized in a given situation compared to others in the same situation.

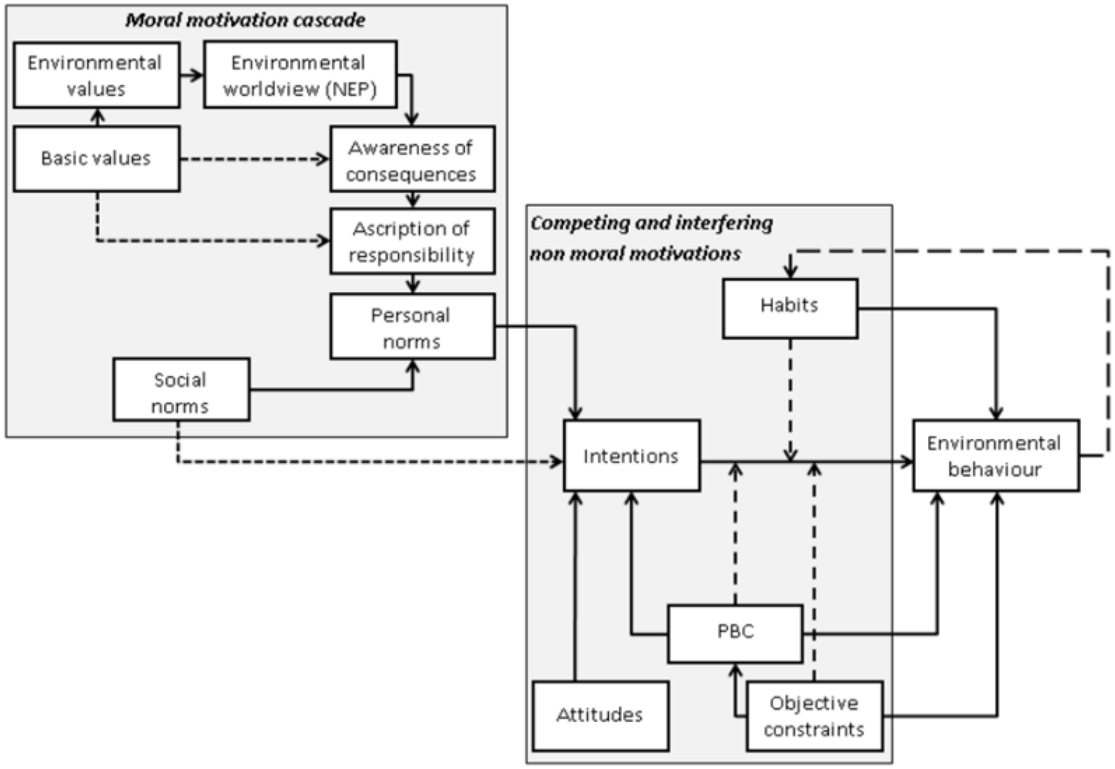


*Figure 1.8: The comprehensive action determination model* (Klöckner, 2013).

According to this model, people that hold environmental values and embrace an ecological worldview, demonstrate awareness of consequences of their own actions and are responsible for that, are more likely to feel morally obligated to act in an environmentally friendly way (personal and social norms). This moral obligation can impact intentions and, consequently, the behavior.

### 1.3.5 The stage model of self-regulated behavioral change

Another relevant model is represented by the stage model of self-regulated behavioral change (Bamberg, 2013a, b), that represents an interesting way to promote tailored interventions, instead of standard ones. The model stems from the model of action phases (MAP, Heckhausen & Gollwitzer; 1987) and it centers around the series of steps that an individual needs to take in order to change a specific behavior. Those steps are four:

- the predecisional stage (goal intention) relates to a personal goal to which a person feels committed. The goal intention is generated just after the personal norm (the moral obligation) has been triggered. This usually happens when the person realizes the negative consequences and takes responsibility for their actions;
- the preactional stage (behavioral intention) is directed to the evaluation of pros and cons of possible behavioral strategies and to decide a behavioral intention;
- the actional stage (implementation intention) refers to the action to reach the goal;
- the postactional stage (new behavior) includes comparing desired with achieved outcomes and focuses on the maintenance of the new behavior.

The SSBC model (Bamberg, 2013a) includes affective and social-cognitive constructs for each of these stages. In the first stage, people are characterized by self-awareness about their own behavior, which can make them feel guilty and afraid of social disapproval. This will activate personal norms, which in turn bring people to anticipate positive feelings related to the accomplishment of specific behavior. All this together helps to form a goal intention. Two more factors influence the creation of behavioral intention: the perceived behavioral control over the situation and the attitudes toward behavioral alternatives. Then, in the third stage, to form an implementation intention, factors such as action planning, coping planning, maintenance self-efficacy are needed. Action planning is about figuring out the specific steps needed to do, coping planning refers to the possible obstacles a person can face, while coping self-efficacy refers to the fact of being confident. The fourth step is about the maintenance of the new behavior, and this requires the recovery self-efficacy, which is the confidence of being able to maintain the new behavior and the ability to compare it with the old one. Figure 1.9 illustrates all the phases.

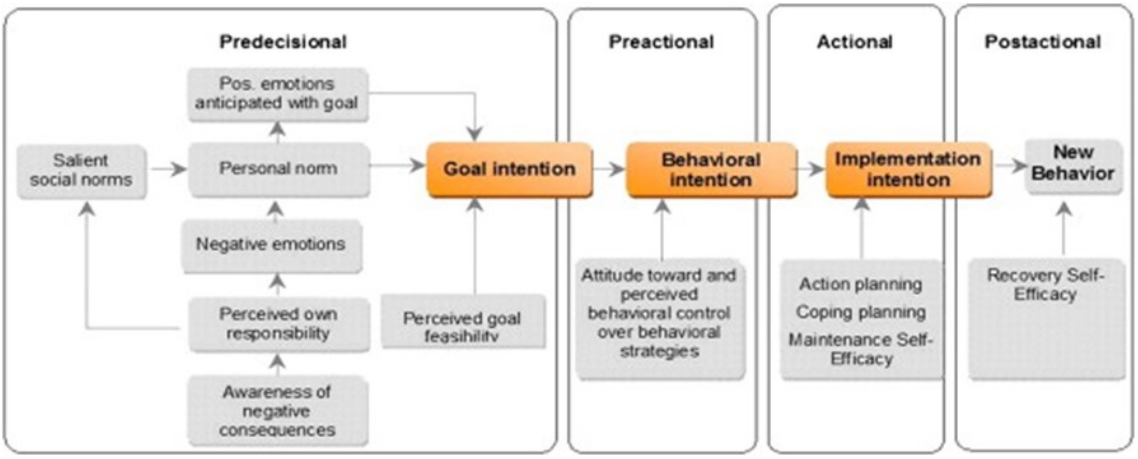


*Figure 1.9: The stage model of self-regulated behavioral change* (Bamberg, 2013).

At every stage, a specific tailored intervention can be applied to sustain the ongoing process. In the predecisional stage, for example, enhancing problem awareness is a good strategy to encourage people to go ahead in the next stage. Other strategies are increasing acceptance of personal responsibility, making social norms salient, reinforcing perceived ability to change the behavior, promoting the formation of a personal change goal (Bamberg, 2013a) and, for the maintenance of the behavior, providing behavioral feedback.

Those theories and models have tried to explain the determinants of sustainable behavior in general, without dwelling on any specific behavior. In the following chapter we will focus on one specific behavior namely meat consumption.

# Chapter 2

# Psychological determinants of food choices

In this chapter we will focus on the main psychological determinants of food choices, namely: values, social norms, political orientation and food neophobia.

## 2.1 The role of values

Values play an important role when it comes to changing people's eating habits, and are one of the personal factors that influence behaviors. They can be defined as desirable trans-situational goals that vary in importance and serve as guiding principles in the life of a person or other social entities (Schwartz, 1992). Indeed, values are ordered according to a system of priorities, they motivate action and when they are activated, feelings as well are triggered. Finally, they are essential for the evaluation of actions, events, and people. It is possible to affect a variety of environmental behaviors by influencing or activating certain values, including certain beliefs, norms, intents, and behaviors. In the literature, there are several theoretical models concerning values, but in this chapter we will focus on the following: the theory on social value orientations (SVO; Murphy & Ackermann, 2014) and Schwartz's value theory (1992, 1994). The SVO theory analyzes how much people care about others in social dilemma situations. Usually, it is assessed through the decomposed game technique (see figure 2.1): in this test, the participant has to choose the amount of resources for himself and for another person. The choice has a social dimension, because the decision of the person will affect another person, and who decides is aware of the consequences. Based on the answer, the theory proposes two different orientations: pro-self- value orientation and pro-social value orientation. Research shows that the first one is negatively correlated with pro-environmental behaviors while the second one positively correlates with pro-environmental intentions.

| Option 1 | Option 2 |
|---|---|
| $85 to the DM | $100 to the DM |
| $85 to another person | $50 to another person |

*Note.* DM = decision maker.

*Figure 2.1 An example of the decomposed game technique* (Murphy & Ackermann, 2014).

The Schwartz value theory (1992, 1994) proposes 56 general values. Based on a survey data from 44 countries, Schwartz presented ten different types of motivational values, closely related to each other, gathered in a circumplex structure, grouped into higher-order values and plotted in a two-dimensional space: openness to change versus conservatism and self-enhancement versus self-transcendence (see figure 2.2). Especially two types of self-transcendent values (altruistic and biospheric) and two types of self-enhancement values (egoistic and hedonic) seem to be important in the environmental domain, especially for attitudes, norms and behavior, in the same way as prosocial value orientation and pro-self-value orientation from the SVO theory. Altruistic values encompass a concern for the well-being of fellow humans, while biospheric values entail a concern for nature and the biosphere in its entirety. Egoistic values reflect costs and benefits affecting individual resources (such as money and power), hedonic values reflect a concern with improving one's feelings and reducing effort (e.g. driving a car, taking long showers). The ten proposed values by Schwartz are the following: universalism, benevolence, conformity, tradition, security, power, achievement, hedonism, stimulation, self-direction. The values are related to the goal that underlie each of them: the closer two values are on the circle, the more similar are the motivations, the farther apart they are, the more conflicting their motivations (Schwartz, 2012). The defining goal of universalism has two concerns: understanding, appreciation, tolerance, and protection for the welfare of all people and for nature; the defining goal of benevolence is the preservation and enhancement of the welfare of people with whom one is in frequent personal contact; tradition's motivation is respect, commitment, and acceptance of the customs and ideas that traditional culture or religion impose on the self; the defining goal of power is represented by social status and prestige, control, or dominance over people and resources; self-direction motivation is represented by independent thought and action,

and it is expressed in choosing own goals, creating and exploring, be independent; the motivation that underlie stimulation is excitement, novelty, and challenge in life; the defining goal of hedonism is pleasure or gratification for oneself; the conformity one is represented by restraints of actions, inclinations, and impulses likely to upset or harm others and violate social expectations or norms, and it is expressed in obedience, self-discipline; the defining goal of achievement is personal success by demonstrating competence, characterized by ambitiousness and success; finally, the defining goal of security is stability of society and of self, and harmony.

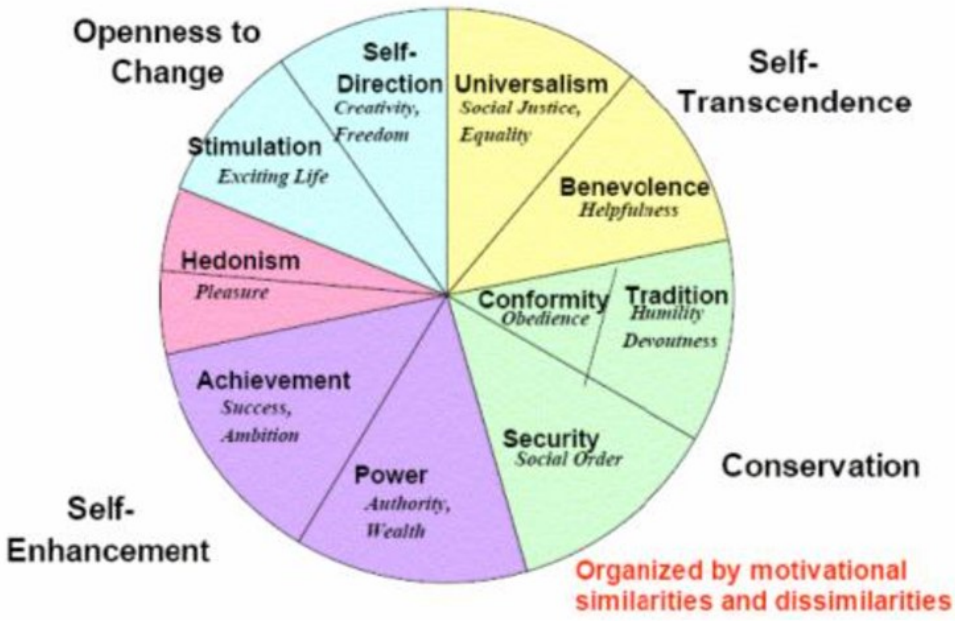


*Figure 2.2: Schwartz Value System* (Schwartz, 2012).

The relationship between values and (non-)meat consumption has been explored, showing that valuing self-transcendence and openness to change is associated with reduced meat consumption, while valuing self-enhancement and conservation is linked to positive attitudes towards red meat. Furthermore, valuing universalism, self-direction, and stimulation has been found to be associated with vegetarianism and sustainable food consumption (Lehto et al., 2023). In Finland, one of the target countries of our research, a study has been conducted to investigate the relationship between values, value profiles and the consumption of food that is relevant for the environment such as red meat, dairy products, legumes, plant-based meat and dairy alternatives. Also, the importance of meat-like characteristics has been analyzed in line with values and value profiles. From the

study emerged that a great proportion of Finns want to reduce beef consumption and increase the amount of plant-based food. In addition, what came out is that one of the five value profiles, called “Modern Universalists”, is the one related to less consumption of red meat. Individuals part of this group highly valued universalism, benevolence, self-direction and hedonism. Higher consumption of red meat was instead associated with values as tradition, conformity and security (Lehto et al., 2023).

## 2.2 The role of social norms

Social norms are ‘rules and standards that are understood by members of a group, and that guide and/or constrain human behavior without the force of laws’ (Cialdini & Trost 1998). Social norms are part of group factors that can influence a specific behavior and research has demonstrated that usually they are better predictors of behavior than values. Two types of social norms can be distinguished: injunctive and descriptive norms. The first ones represent a behavior which is generally accepted or disapproved, while the second ones refer to the behavior that the majority of group members exhibit. Social norms have been studied by social psychologists for many years and experiments have shown how people use replies of others as a starting point for their own responses. Studies have also shown how norms affect behaviors and not just opinions, even though people are not so conscious about it. The underlying reasons for adhering to norms are related to social acceptance or to avoid social sanctions in the case of injunctive norms, and the desire to be correct or accurate in the case of descriptive norms. Norms have an impact on our behavior, even though the effect might be moderated by variables such as salience, group size, characteristics of the group (i.e., ingroup or outgroup) and personal norms. Salience because norms are specific to a context; the group size: the bigger a group is, the stronger influence it has on individuals; characteristics of the groups: if a person categorizes herself as member of a specific group, the influence on that person will be stronger; personal norms refers to the individual’s beliefs about their moral obligation to engage in a certain way; usually, social norms have a stronger influence when people are ambivalent regarding a specific behavior (Steg & de Groot, 2019).

Social norms are often used as a strategy to influence certain behaviors. As social norms are context-dependent, recent studies have started to adopt a dynamic approach to affect behaviors and attitudes in several domains, such as meat consumption; this is where dynamic social norms began to be used. They are defined as social norms that describe

the change in behavior of people over time (Sparkman & Walton, 2017); one example can be sharing information about how other people are changing their eating habits over a period of time. This can encourage individuals to modify their own food choices and consumption patterns. Dynamic norms are particularly effective when members of one's own group have adopted a certain type of behavior. The same effect does not occur when it is an outgroup member who adopts them. To provide some evidence of the effectiveness of these interventions, results from a study with dynamic descriptive norms showed a rise in individuals' intentions to decrease meat consumption and an actual increase in the proportion of plant-based meal purchases (Sparkman et al., 2020).

## 2.3 The role of political ideology

The role of political orientation is extremely important in several domains and in decision making.

The term "ideology" emerged for the first time in the 18$^{th}$ century, and it was used to refer to the science of ideas, which is the sociology of knowledge. Many other definitions have been given over the centuries. To report some examples, Adorno and colleagues (1950) affirmed that "the term ideology is used . . . to stand for an organization of opinions, attitudes, and values- a way of thinking about man and society. We may speak of an individual's total ideology or of his ideology with respect to different areas of social life: politics, economics, religion, minority groups, and so forth". Tedin (1987) defines the term political ideology as "an interrelated set of attitudes and values about the proper goals of society and how they should be achieved. An ideology has two distinct and at least analytically separate components—affect and cognition". Ideology plays an important role in understanding why people act the way they do. Researchers see ideology as a stable individual's belief system, often shared with a specific group, that structures people's values and beliefs, influencing their political behavior (Jost, 2006).

Psychology defines ideology as a coherent set of attitudes and values, which support the actions of a group, shared within a given social group. Ideology is characterized by:

- a prescriptive nature: it tells us how we should think about things;

- a mobilizing function: it motivates, directs, and supports action;

- a collective nature: it is shared with a group.

For more than two hundred years, political belief systems have been classified according to an ideological left-right dimension (or progressivism-conservatorism); the political labels “right” and “left” find their origins in the seating arrangements of the French parliament in the 18th century, where those who favored the existing order sat on the right side of the French Assembly hall, while their adversaries sat on the left. Despite not being a perfect distinction, the left-right divide has been the most useful and straightforward way to categorize political beliefs for over 200 years. Based on research (Jost et al., 2003a, 2003b), the main significant differences between conservative and liberal ideologies revolve around two central issues:

1. Demand or resist change (attitudes towards social change versus tradition)
2. Reject or accept inequality (attitudes toward inequality)

Indeed, conservatives believe that people are naturally unequal and should receive different rewards, while liberals believe in equality. Conservatives value tradition, order, and authority the most, whereas liberals have greater openness to change and greater tolerance of uncertain and ambiguous situations. Adorno and colleagues (1950) defined conservatism as “An attachment, on the surface at least, to ‘things as they are,’ to the prevailing social organization and ways.” Different personality traits and personal values lead to a different political orientation. Considering Schwartz value system (1992), studies have shown a positive relation between conservatorism and values such as power, security, conformity, and tradition and a positive relation between liberalism and the following values: benevolence, universalism and self-direction. Considering personality traits, conservatives have the conscientiousness trait, while liberals have open-mindedness (Jost, 2006; Jost et al., 2003).

### 2.3.1 What are the processes that lead a person to develop a certain political ideology?

To understand what are the reasons and circumstances that underlie such a psychological diversity between ideology, two theoretical models of a cognitive-motivational nature have been established in social psychology:

1. Dual Process Motivational model (DPM; Duckitt, 2001; Duckitt & Sibley, 2010)

2. The approach that considers ideology as a form of motivated social cognition (Jost et al., 2003; Jost et al., 2009)

### 2.3.2 The Dual Process Motivational model

The Dual Process Motivational model (DPM; Duckitt & Sibley, 2017) considers the right-wing ideology as consisting of two independent but interrelated dimensions:

- right-wing authoritarianism (RWA)

- social dominance orientation (SDO)

Those dimensions have different psychological processes and worldviews and reflect different ideological aspects, but have common attitudes and behaviors, such as prejudice and ethnocentrism.

The concept of right-wing authoritarianism was introduced by Altemeyer (1981). According to Altemeyer (1981), authoritarianism manifests as a collection of social attitudes that individuals tend to learn and embrace through social interaction with their peers or family members, across various contexts, and during interactions with individuals who follow conventional rather than unconventional lifestyles and beliefs. According to Altemeyer RWA includes three nuclei:

- authoritarian submission: represents submission and respect towards authorities who are perceived to be legitimate;
- aggressiveness: directed at different people, that appears to have the approval of established authority;
- Conventionalism: strong adherence to social conventions endorsed by society.

Right wing authoritarianism is more associated with social conservatism, with the need for social order (Duckitt et al., 2002). RWA is related to the view of the world as dangerous (dangerous world belief), thus people with higher scores on RWA look for security, order, stability. RWA reflects submissive tendencies, cultural traditionalism, deference to authorities, and aggression towards norm violators (Dhont & Hodson, 2014).

Social dominance orientation represents an important construct that was proposed in 'Social Dominance Theory' by Sidanius and Pratto (1994). According to this theory, human societies aim to reduce group conflicts by formulating ideological belief systems that rationalize the dominance of certain groups over others. By doing so, they organize society according to a social hierarchy: at the bottom there are the groups considered inferior because of poverty and low social status, while at the top of it there are groups considered superior because characterized by high socioeconomic status. Social dominance orientation comprises two interrelated subdimensions: attitudes of social dominance (aspiration for group-based dominance) and beliefs in and support for inequalities (resistance against equality) (Jost & Thompson, 2000). This inevitably translates into greater support for policies aimed at hierarchical management of society, behaviors aimed at discrimination, and the activation of intergroup dynamics that seek to maintain the gap between subordinate and dominant groups. Thus SDO is more associated with the economic aspect of conservatorism, for his favoritism towards social hierarchy (Duckitt et al., 2002).

SDO is related to the view of the world as a competitive jungle (competitive jungle belief), where strength is fair, the strong win while the weak lose. This leads to the development of more favorable attitudes towards rigid social hierarchy between inferior groups and to believe in the law of the strongest. The motivational pattern of power, dominance and superiority thus becomes more salient. SDO indicates a desire for group-based dominance and inequality among social groups.

### 2.3.3 The approach that considers ideology as a form of motivated social cognition

According to the approach that considers ideology as a form of motivated social cognition, political ideology, especially conservative ideology, is seen as functional for the individual to satisfy certain needs and motivations (Jost et al., 2003; Jost et al., 2009). Three motivations/needs have been highlighted: epistemic, existential and relational needs. Epistemic needs are aimed to reduce uncertainty, complexity, ambiguity and they are related to the need for structure, order and closure. Existential needs respond to the necessity to reduce and manage the perceived threat. Finally, relational needs refer to the willingness to create interpersonal relationships and identification with others. Conservative political ideology offers a point of reference that gives security, certainty and solidarity thus meeting the needs of individuals. And it is from these needs that the

tendency to justify the system develops, despite the negative repercussions for disadvantaged social groups.

In literature, two different views, the ego-justification and the group-justification view of stereotyping have been initially proposed in order to explain why people justify certain ideas or behaviors. Ego-justification refers to the stereotypes that develop as an answer to the protection of the self, while group-justification refers to the stereotypes as an answer to protect the whole group as a status (Jost & Banaji, 1994). Stereotypes develop 'to justify (rationalize) our conduct in relation to' other social categories (Allport, 1958). Although ego-justifying and group-justifying motives are both important, they were not explaining some aspects, such as the negative stereotyping of the disadvantaged self or the ingroup. For this reason, the concept of system justification has been developed to better explain the reasons why individuals support existing social dispositions even when they are against personal and group interest. The System Justification Theory (SJT; Jost & Banaji, 1994; Jost, 2019) postulates that human being possesses a psychological tendency to justify and rationalize the social, economic, political and cultural status quo, so that the pre-existing system appears just, legitimate, acceptable, inevitable and natural. This process of justification of the system is the same for both advantaged and disadvantaged groups. The latter (i.e women and members of the working class), in particular, are more likely to support the status quo because of their strong need to reduce conflicting thoughts and maintain the system legitimacy. The effect and intensity of the system justification depends on contextual and individual differences; for example, it is increased when the status quo is threatened or is perceived to be inevitable. The system satisfies the three needs described previously: epistemic, existential and relational needs (Jost & Van der Toorn, 2012). Moreover, the meta-analysis by Jost and colleagues (2003b) has shown that the justification system is in line with conservative traits: needs for order, structure, closure, and intolerance of ambiguity. Justifying the status quo has also a palliative effect by increasing positive emotions, reducing negative feelings and enhancing people's happiness. However, it also weakens support for social change and the fair distribution of resources (Jost et al., 2019). The long-term consequences of it are opposite for disadvantaged and advantaged groups. For the latter ones, as the system justification is aligned with their ego and group justification motives, the outcome is self-esteem and psychological well being. For the first group, instead, the system justification

is in contrast with their ego and group justification motives and thus the effects are the opposite (Jost & Van der Toorn, 2012).

### 2.3.4 How is meat consumption related to political ideology?

Now that some differences between conservatives and liberals have been explained, we move on to talk about how meat consumption is linked to conservative ideology.

Studies have shown that both RWA and SDO are strong predictors of prejudice towards outgroups and support for discrimination and exploitation. There is also a positive association between right-wing ideologies and attitudes towards animal exploitation, such as animal testing, fur industry, and meat consumption. Indeed, right-wing individuals are more likely to engage in animal exploitation and identify as meat-eaters (Dhont & Hodson, 2014). According to Integrated Threat Theory (Stephan & Stephan, 2013) two psychological mechanisms can explain this phenomenon:

- the perceived threat of vegetarianism (non-exploitative ideology toward animals) to the meat-eating culture;
- the belief in human superiority, especially in people with higher social dominance beliefs.

This might lead to greater acceptance of animal exploitation and more meat consumption (Dhont & Hodson, 2014).

Another factor that is linked with political ideology and the topic of meat consumption is food neophobia, namely the aversion to consuming unfamiliar food, which is a shared inclination among humans and omnivores in general (Guidetti et al., 2018). This caution comes from our history, where trying novel food could be an opportunity to discover new nourishment but it could also represent a risk for life; for this reason, food neophobia is considered a protective factor in a dangerous environment. This 'omnivore dilemma' represents a limit for food choices and for the variety of the diet, especially in Western societies where food is safe, and it is an obstacle to acceptance of meat alternatives. In order to measure this phenomenon and to create strategies to reduce it, researchers have developed the Food Neophobia Scale: a very useful tool composed of 10 items (Pliner & Hobden, 1992) measured on a 7-point Likert scale. Research has shown a relation between food neophobia and political ideology. Conservatives, compared with liberals,

eat more meat, possess unfavorable opinions about vegetarians and the chances to be vegetarian are low. Research conducted by Guidetti and collaborators (2022) has shown that political ideology is indeed a predictor of food neophobia: the more conservative people are, the more food neophobic. The explanation for this does not have its roots in history but according to the study of Guidetti and collaborators (2022) it is a social explanation: as conservatives hold negative attitudes towards foreign outgroups, they associate new food with outgroups and for this reason they are reluctant to eat it.

In the following chapter, we will explain the aim of this study and we will present the hypothesis.

# Chapter 3

# The study conducted

## 3.1 Hypothesis

The main aim of the present study is to identify some of the determinants of sustainable eating, that is, what factors/motivations might have a direct impact on the intention to consume less meat and how much people support policy proposals in this direction, both in the case of those who consume meat in their diet and those who do not (i.e., how much they support policy proposals that aim at sustainable nutrition, from the production to the consumption stages). Specifically, we want to investigate the impact of several factors, among them the perceived risk of climate change, the phobia of new foods (such as alternatives to meat), the consideration of future consequences of one's actions (such as weekly meat consumption), the mindfulness (such as being more aware and careful about what one buys and consumes) and the biospheric or more selfish values (such as having values whereby one pays more attention to one's environmental impact or economic expenditure). Likewise, characteristics such as recognising that one has a 'green' identity, feeling personal norms related to pro-environmental action, feeling like a citizen of the world, and having a less hierarchical view of the world, are investigated regarding the intention to reduce meat consumption. Since the questionnaire contains all these variables, within this thesis we will focus on the role of food neophobia and the participant's political orientation.

Data have been collected in three different European countries (Italy, Finland, and Norway) in order to investigate the generalizability of the results.

## 3.2 Method

### *3.2.1 Participants*

The study has been conducted in three different countries: Italy, Finland, and Norway. A total of 1175 participants were recruited. However, we excluded some participants according to these criteria:

- they did not provide informed consent at the end of the study;

- they did not complete the full survey;

- they were vegetarian or vegan. The vegetarian sample consisted of 35 Italians, 62 Finnish and 12 Norwegians. The vegan sample was composed by 14 Italian people, 52 Finnish people and 7 Norwegians. A total of 182 people were excluded for their diet.

Thus, the analyzed sample consisted of 362 participants from Italy, 348 from Finland, 223 from Norway, for a total of 933 participants, of whom 659 were women and 274 men.

The average age of participants was M=27.44 (SD=10.1; from 18 years to 72 years). In terms of educational level, participants were distributed as follows: 15 subjects with a middle school diploma, 484 subjects with a high school diploma, 306 subjects with a bachelor's degree, 116 subjects with a master's degree/five-year/one-cycle degree and 12 subjects with a master's degree or doctorate.

The income was measured using the MacArthur Scale of subjective social status, from a minimum of 1 to a maximum of 10. The average income was M=4.64 (SD=1.51, from 1 to 10).

Political orientation was registered on a 7-point Likert scale from 1 (extreme left-wing) to 7 (extreme right-wing). The average of the whole sample was 3.493 (SD=1.435).

In Table 1, socio-demographics by country are reported.

In every sample, there are more females than males, in particular in Norway. Regarding the average age, Norway's sample is the youngest. With regard to political orientation, in all cases, the sample is shifted toward the left rather than the right, even though in Italy the sample is more conservative compared to the other two countries.

| | ITALY (N=362) | FINLAND (N=348) | NORWAY (N=223) | OVERALL (N=933) |
|---|---|---|---|---|
| **Age** | 28.9 (12.5) | 28.5 (8.88) | 23.3 (5.22) | 27.4 (10.1) |
| **Gender** | | | | |
| Female | 236 (65.2%) | 245 (70.4%) | 178 (79.8%) | 659 (70.6%) |
| Male | 126 (34.8%) | 103 (29.6%) | 45 (20.2%) | 274 (29.4%) |
| **Education** | | | | |
| Middle school | 14 (3.9%) | 1 (0.3%) | 0 (0%) | 15 (1.6%) |
| High school | 229 (63.3%) | 123 (35.3%) | 132 (59.2%) | 484 (51.9%) |
| Bachelor | 74 (20.4%) | 158 (45.4%) | 74 (33.2%) | 306 (32.8%) |
| Master | 36 (9.9%) | 63 (18.1%) | 17 (7.6%) | 116 (12.4%) |
| Specialization | 9 (2.5%) | 3 (0.9%) | 0 (0%) | 12 (1.3%) |
| **Socio economic status** | 4.61 (1.43) | 4.63 (1.52) | 4.71 (1.62) | 4.64 (1.51) |
| **Political orientation** | 3.83 (1.37) | 3.31 (1.39) | 3.22 (1.51) | 3.49 (1.44) |

*Table 1.1 Socio-demographics by country.*

### 3.2.2 Procedure

Participants were asked to fill in an online anonymous questionnaire, constructed through the platform "Qualtrics" (20 minutes duration). The survey was first created in the Italian language and then translated into Finnish and Norwegian language. For the translation of the scales, backward translation with mother tongue people has been used. For the Norwegian language, translations have been double checked by a research lab in psychology. When scales have already been validated in the needed language, no translation has been used.

Data collection was carried out from November 2022 until May 2023, in the three different countries. The questionnaire was disseminated via a public link, mainly exploiting the major social media available, such as Instagram, WhatsApp, mail list of the university and university platforms. The questionnaire could be completed either on a computer or from a mobile device. To consult the informed consent and the entire questionnaire, please refer to the Appendix.

### 3.2.3 Measures

At the beginning, participants were presented with informed consent, and immediately after they were asked about their diet. They were asked to indicate (multiple choice question, only one alternative to be selected) if they were: omnivorous, vegetarian, vegan or flexetarian.

Moreover, since the beginning of the questionnaire, a definition of sustainable behavior was then provided: “A behaviour is defined as sustainable when it takes into account the need to preserve the planet for present and future generations, considering economic, environmental and social development. An example of sustainable behaviour can be food. In particular, food is defined as sustainable when it has a low environmental impact, contributes to food and nutritional security and a healthy life for present and future generations. Sustainable food is protective and respectful of biodiversity and ecosystems, culturally acceptable, accessible, economically equitable and affordable, nutritionally adequate, safe and healthy, and optimizes natural and human resources”.

The questionnaire moves on by asking only to omnivorous and flexitarian participants how interested they were to reduce meat consumption (this question is not addressed to vegetarian and vegan participants because they do not eat meat): “Regardless of the type of diet you have, how interested are you in eating less meat?”, measured with a 7-point Likert scale from 1 (at all) to 7(extremely) and whether they were willing to reduce the amount of meat in their diet (adapted from De Groeve et al., 2019; Jansen, 2016) through four questions from completely disagree to completely agree in a 7-point Likert scale. Examples are: “I plan to reduce my meat intake in the near future”. Cronbach’s alpha for this scale was .91.

Then four alternatives to meat were presented: plant-based meat, in vitro meat, insect burger, and protein vegetable cutlets. Participants were asked how willing they would have been to buy alternative solutions to meat. Next, they are asked how willing they would have been to increase the amount of legumes and grains in their diet in order to replace the meat. The responses to these questions were provided along a 7-point Likert scale from 1 (not at all) to 7 (very much). Cronbach’s alpha for this scale was .835.

Then, the perceived benefits of reducing meat consumption (adapted from Taufik, 2018) was measured through 4 questions assessing four different dimensions: health benefits,

environmental benefits, financial benefits, and social benefits. The responses to all these questions were provided along a 7-point Likert scale, from 1 (Completely disagree) to 7 (Completely agree). Examples of items are: “Eating less meat would give me health benefits”, “Eating less meat would reduce my CO2-emissions”. Cronbach’s alpha for this scale was .67.

Participants were then asked to report how urgent they perceived nine different policies created ad hoc by the authors of the study. Six of these policies were related to food and nutrition (e.g., inclusion of sustainable nutrition education hours in schools from primary school, implementation of digital systems to reduce food waste from the stages of their production to the stages of sale to consumers), while the other three questions were related to other sustainable aspects (i.e., recycling, transports, and textile production). Participants reported their urgency perception for each policy on a 7-point Likert scale, ranging from not at all to extremely. Cronbach’s alpha for this scale was .86.

The questionnaire moves on measuring risk perception, about climate change through eight questions. Specifically, two different levels of risk perception have been measured: the personal risk (4 items) and the societal risk (4 items) (scale adapted by van der Linden (2015). Examples of items are: “How concerned are you about climate change?”, “In your judgment, how likely are you, sometime during your life, to experience serious threats to your health or overall well-being, as a result of climate change?”, “In your judgment, how likely do you think it is that climate change will have very harmful, long-term impacts on our society?”, and “How serious of a threat do you think that climate change is to the natural environment?”. Participants answered each question on a 7-point Likert scale, ranging from not at all to very much. Based on the EFA, we computed three indices as suggested by van der Linden, 2015: a global/societal risk perception index ($\alpha$ = .85), a personal risk index ($\alpha$= .87) and a general risk perception index (i.e., the mean of the first two indexes; $\alpha$ = .91)

Finally, each participant completed a series of scales designed to investigate individual characteristics:

- the “green identity” (adapted by Van der Werff et al., 2013), which measures green self-identity specifically focused on sustainable eating. We used a scale including three items adapted from the environmental self-identity items proposed

by Van der Werff et al., 2013. The response to all the items was provided along a 7-point Likert scale, ranging from 1 (Totally disagree) to 7 (Totally agree). The items were: “Eating sustainably is an important part of who I am”, “I am the type of person who eats sustainably", and “I see myself as a person who eats sustainably”. Cronbach’s alpha was .91;

- the Food Neophobia Scale (FNS; $\alpha$ = .88; Pliner & Hobden, 1992; Guidetti et al., 2018), that measures how comfortable/uncomfortable people are in trying new food. The response to all the items was measured on a 7-point Likert scale, ranging from -3 (Completely disagree) to +3 (Completely agree). Examples of the items are: “I am constantly tasting new and different foods”, “I don’t trust new foods”, “If I don’t know what a food is, I won’t try it”. Cronbach’s alpha was .88;
- the Concern for Future Consequences scale (CFC; $\alpha$ = .81; Rappange et al., 2009; Strathman et al., 1994) was used to measure the extent to which individuals consider and are influenced by the distant outcomes of current behavior, that is, if they are concerned about the likely consequences of their own actions or if they only think about the immediate pleasure the action gives them. The scale consists of 12 items with a 7-point Likert scale from 1 (Extremely uncharacteristic) to 5 (Extremely characteristic). Some examples of the items are: “I consider how things might be in the future and try to influence those things with my day-to-day behavior” or “I only act to satisfy immediate concerns, figuring the future will take care of itself” or “I'm willing to do something I don't really enjoy if it pays off”. Cronbach’s alpha was .805.
- The Mindful Attention Awareness Scale (MASS; Brown & Ryan, 2003; Veneziani & Voci, 2015) is designed to assess a core characteristic of mindfulness, namely, a receptive state of mind in which attention, informed by a sensitive awareness of what is occurring in the present, simply observes what is taking place and it consists of 15 items. The response to all the items is measured on a 7-point Likert scale, ranging from 1 (Almost never) to 7 (Almost always). Examples of items are: “I could be experiencing some emotion and not be conscious of it until sometime later”, “I break or spill things because of carelessness, not paying attention, or thinking of something else”, and “I find it difficult to stay focused on what’s happening in the present”. Cronbach’s alpha was .87.

- The Environmental Portrait Value Questionnaire (E-PVQ; Bouman, Steg, & Kiers, 2018) consists of 17 items and it measures how much participants endorse four environmental values: altruistic ($\alpha$ = .76), biospheric ($\alpha$ = .85), egoistic ($\alpha$ = .77), and hedonistic ($\alpha$ = .85). The scale is composed of 17 sentences that describe what another person thinks as very important in life and participants are asked to report how much the person in the description is similar to themselves on a 7-point Likert scale, from 1 (Totally not like me) to 7 (Totally like me). Examples of items are: "It is important to [him/her] to prevent environmental pollution", " It is important to [him/her] that every person has equal opportunities", and "It is important to [him/her] to protect the environment", "It is important for [him/her] to have money and possessions".The Ecological Dominance Orientations (EDO; Uenal et al., 2021), a single item used to assess general preferences for an anthropocentric, hierarchical arrangement between humans, non-human animals, and the natural environment. The response to the question is measured on a 7-point Likert scale, ranging from 1 (Less hierarchical) to 7 (More hierarchical). The instructions are: "Ideas on how humans, animals, and the natural environment should relate to each other can differ for every person. Using the image below as a guide, indicate which arrangement you personally think represents your own preference. The more you move the slider to the right, the more you indicate a preference for a more hierarchical relationship between humans, animals, and the natural environment. The more you move the slider to the left, the more you indicate a preference for a less hierarchical relationship."
- The obligation-based intrinsic motivation via the personal norm was measured (adapted by Van der Werff et al., 2013). It consists of 3 items that reflect feelings of obligation to act in an environmentally-friendly way; the response to all the items was measured on a 7-point Likert scale, ranging from 1 (Totally disagree) to 7 (Totally agree). The items are: "I feel morally obliged to act in an environmentally-friendly manner", "I would feel guilty if I did not act in an environmentally-friendly manner", and "I would be a better person if I would act in an environmentally-friendly manner". Cronbach's alpha was .84.
- We then measured how much people feel connected to human beings as a whole via the global citizenship (Seo et al., 2022), which consists of four items: "I would describe myself as a global citizen", "I feel I share a common destiny with other fellow human beings", "I feel I belong to humanity as a whole", and "I feel I am

closely connected with other people in the world". The response to all the items was measured on a 7-point Likert scale, ranging from 1 (Totally disagree) to 7 (Totally agree). Cronbach's alpha was .80.

- The short Marlowe-Crowne social desirability scale (Reynolds, 1982) was assessed through 13 items to measure social desirability concern. Participants were asked to indicate how true the following statements were for them, on a 5-points Likert scale response type, from 1 (Completely false) to 7 (Completely true). Examples of items are: "I am always courteous, even to people who are disagreeable", "I sometimes feel resentful when I don't get my way". Cronbach's alpha was .45.
- Next, five socio-demographic questions were asked investigating age, gender, educational level, political orientation and socioeconomic status (SES). Respectively, the questions were as follows: "How old are you?"; "What is your gender?" (Male; female; other); "What is your highest level of education?" (License elementary school; middle school diploma; high school diploma; bachelor's degree; master's/five-year/single-cycle degree; master's/doctoral degree). Political orientation was registered through a 7-point scale from 1 (extreme left-wing) to 7 (extreme right-wing) through one question. Subsequently, socioeconomic status has been measured, using the MacArthur Scale of subjective social status: "Think of this scale as a representation of the position of people in [Italy/Finland/Norway]. At the top of the scale, there are the people who are better off-those who have more money, higher degree of education, and the most respected jobs. At the lower end of the scale, there are the people who are worse off-those with less money, lower educational attainment, the least respected jobs or no jobs at all. The higher you are on this scale, the closer you are to the people at the top; the lower you are, the closer you are to the people at the bottom. Where would you place yourself on this scale? Choose the rung where you think you are at this time in your life compared to other people in Italy/Finland/Norway".

At the very end, the informed consent was presented, participants were fully debriefed and thanked for their participation.

The following hypotheses were tested:

H1) We expected a significant and positive relationship between neophobia and political orientation.

H2) We expected a significant relationship between political orientation and neophobia in relation to willingness to reduce meat consumption.

H3) We expected a significant relationship between political orientation and neophobia in relation to willingness to try meat alternatives.

H4) We expected a significant relationship between political orientation and neophobia in relation to willingness to increase legumes consumption.

H5) We expected that the relationship between political orientation and the willingness to reduce meat consumption/willingness to try meat alternatives is mediated by neophobia in all three countries.

# Chapter 4

## Data analysis and results

From the entire questionnaire, we selected the following variables, which are the focus of interest of our analysis: political orientation, neophobia, willingness to reduce meat consumption, and willingness to try meat alternatives.

| | **ITALY (N=362)** | **FINLAND (N=348)** | **NORWAY (N=223)** | **OVERALL (N=933)** |
|---|---|---|---|---|
| Willingness to reduce meat consumption | 4.31 (1.67) | 5.34 (1.62) | 4.95 (1.66) | 4.85 (1.70) |
| Alternatives to meat: in vitro meat | 3.13 (1.93) | 3.95 (2.05) | 4.03 (2.01) | 3.65 (2.04) |
| Alternatives to meat: plant-based meat | 3.82 (2.07) | 4.93 (2.05) | 4.83 (1.87) | 4.48 (2.08) |
| Alternatives to meat: veg balls | 4.53 (1.91) | 5.18 (1.81) | 5.02 (1.72) | 4.89 (1.85) |
| Alternatives to meat: insect-based meat | 2.16 (1.70) | 3.17 (1.90) | 2.43 (1.76) | 2.60 (1.85) |
| Alternatives to meat: average index meat alternatives | 3.41 (1.47) | 4.31 (1.35) | 4.08 (1.34) | 3.91 (1.45) |
| Willingness to increase cereals and legumes consumption | 4.49 (1.61) | 5.11 (1.73) | 4.55 (1.70) | 4.74 (1.70) |
| Food Neophobia Scale | 3.03 (1.37) | 2.69 (1.05) | 2.60 (0.986) | 2.80 (1.18) |
| Political orientation | 3.83 (1.37) | 3.31 (1.39) | 3.22 (1.51) | 3.49 (1.44) |

*Table 1. Means and standard deviations for the main variables investigated in the study*

## 4.1 Regression models

### MODEL 1: Food neophobia as dependent variable (H1)

A first regression analysis was run by entering neophobia as dependent variable and political orientation, country, age, gender, and socioeconomic status as independent variables in order to test H1, that is a significant and positive relationship between neophobia and political orientation. The model was significant, $F(6,926) = 9.95$, $p < .001$, $R2 = .05$. Table 1 shows the coefficients. A significant positive effect of political orientation emerged, suggesting that the more conservative people are, the higher levels of food neophobia they have. Also a significant effect of country emerged, indicating that moving from the two countries to Italy, neophobia increases by .31, which means there is more neophobia in Italy. Moreover, a significant effect of gender emerged, indicating, consistent with the literature, that males have higher levels of neophobia.

| **Coefficients** | **Beta** | **t value** | **p value** |
|---|---|---|---|
| Political orientation | .14 | 5.24 | <.001 |
| country: Norway and Finland VS Italy | .31 | 3.85 | <.001 |
| country: Finland VS Norway | .06 | .61 | .54 |
| age | .01 | 1.51 | .13 |
| gender (1 = Male, 2 = Female) | -.19 | -2.27 | <.05 |
| Socio economic status | .04 | 1.58 | .11 |

*Table 1. Results from the regression model. Dependent variable: food neophobia.*

### MODEL 2: Willingness to reduce meat consumption as dependent variable (H2)

In a second model we analyzed the effect of both political orientation and food neophobia on willingness to reduce meat consumption. A regression analysis was conducted by including willingness to reduce meat consumption as dependent variable, and as

independent variables we included food neophobia, political orientation, countries, age, gender, and socio-economic status. The model emerged significant, F (7,916) = 36.7, p <.001, R2 = .21. See Table 2 for all the coefficients. A significant effect of the country emerged suggesting that in Italy people are less willing to reduce meat consumption compared to Norway and Finland, while in Finland, compared to Norway, people are more willing to reduce meat consumption. Neophobia emerged also as a significant negative predictor: the more fearful a person is of novel foods, the less willing is to reduce meat consumption. Also a significant effect of political orientation emerged indicating that conservatives are less willing to reduce meat consumption than progressives. The analyses also showed a positive relationship of age indicating that older people are more willing to reduce meat consumption. Also in this case there is a gender effect: males are less willing to reduce meat consumption. Finally, people with higher socioeconomic status are more willing to reduce meat consumption.

| **Coefficients:** | **Beta** | **t value** | **p value** |
|---|---|---|---|
| country: Norway and Finland VS Italy | -.54 | -5.01 | < .001 |
| country: Finland VS Norway | .40 | 3.00 | <.01 |
| Food Neophobia Scale | -.21 | -4.91 | < .001 |
| political orientation | -.34 | -9.33 | < .001 |
| age | .02 | 3.52 | < .001 |
| gender (1 = Male, 2 = Female) | -.63 | -5.64 | < .001 |
| Socio economic status | -.09 | -2.72 | <.01 |

*Table 2. Results from Model 2.*

**MODEL 3: Willingness to try meat alternatives as dependent variable (H3)**

In this model we analyze the effect of both political orientation and food neophobia on willingness to try meat alternatives. A regression analysis was conducted by including willingness to try meat alternatives as the dependent variable, whereas as independent variables we included food neophobia, political orientation, countries, age, gender, socioeconomic status. The model emerged significant, F (7,916) = 48, p <.001, R2 = .26.

In Table 3 are reported all the coefficients. Specifically we can see that in Italy, compared to Finland and Norway, people are least willing to try meat alternatives, while in Finland, compared to Norway, people are more willing to try meat alternatives.
Food neophobia has also a significant impact in a negative direction: people with higher levels of food neophobia are the less willing to try alternatives to meat. There is also a significant effect of political orientation: conservatives are less willing to try alternatives to meat. Finally, also a significant effect of age emerged, suggesting that younger people are more willing to try alternatives to meat.

| **Coefficients** | **Beta** | **t value** | **p value** |
|---|---|---|---|
| country: Norway and Finland VS Italy | -.45 | -5.06 | < .001 |
| country: Finland VS Norway | .37 | 3.40 | < .001 |
| Food Neophobia Scale | -.31 | -8.76 | < .001 |
| political orientation | -.29 | -9.39 | < .001 |
| age | -.02 | -4.73 | < .001 |
| gender (1= Male, 2 = Female) | .14 | 1.57 | .11 |
| Socio economic status | -.02 | -0.63 | .53 |

*Table 3. Results from model 3.*

**MODEL 4: Legumes consumption as dependent variable**

In this model we analyze the effect of both political orientation and food neophobia on willingness to increase legumes consumption. A regression analysis was conducted including willingness to increase legumes consumption as dependent variable, and as independent variables food neophobia, political orientation, countries, age, gender, socioeconomic status were included. The model was significant, $F(7,916) = 27.9$, $p < .001$, $R2 = .17$. Results are reported on Table 4. Specifically, we can see that there is a difference between countries: Finnish people are more willing to increase legumes consumption than Norwegians. People with higher levels of neophobia and conservatives are less likely to increase the use of legumes in their diet. There is also an effect of age: older people are more willing to increase the consumption of legumes in their diet. There is also a gender effect: males are less willing to increase legume consumption. There is

also a negative effect for socioeconomic status, meaning that people with higher socio-economic status are more willing to increase legume consumption.

| Coefficients | Beta | t value | p value |
|---|---|---|---|
| country: Norway and Finland VS Italy | -.06 | -0.57 | .57 |
| country: Finland VS Norway | .55 | 4.04 | < .001 |
| FNS | -.23 | -5.13 | < .001 |
| political orientation | -.33 | -8.74 | < .001 |
| age | .02 | 3.91 | < .001 |
| gender (1= Male, 2 = Female) | -.61 | -5.31 | < .001 |
| Socio economic status | -.09 | -2.69 | <.01 |

*Table 4. Results from model 4.*

## 4.2 Mediation models

In order to test H4, we run a mediation model in which the effect of political orientation on the willingness to reduce meat consumption (a) and the willingness to try meat alternatives (in vitro meat, plant-based meat, veggie burgers, e insect-based meat, b) was mediated by the food neophobia (Figure 4.1). We tested these mediation models first with all countries together and then for each of the three countries separately.

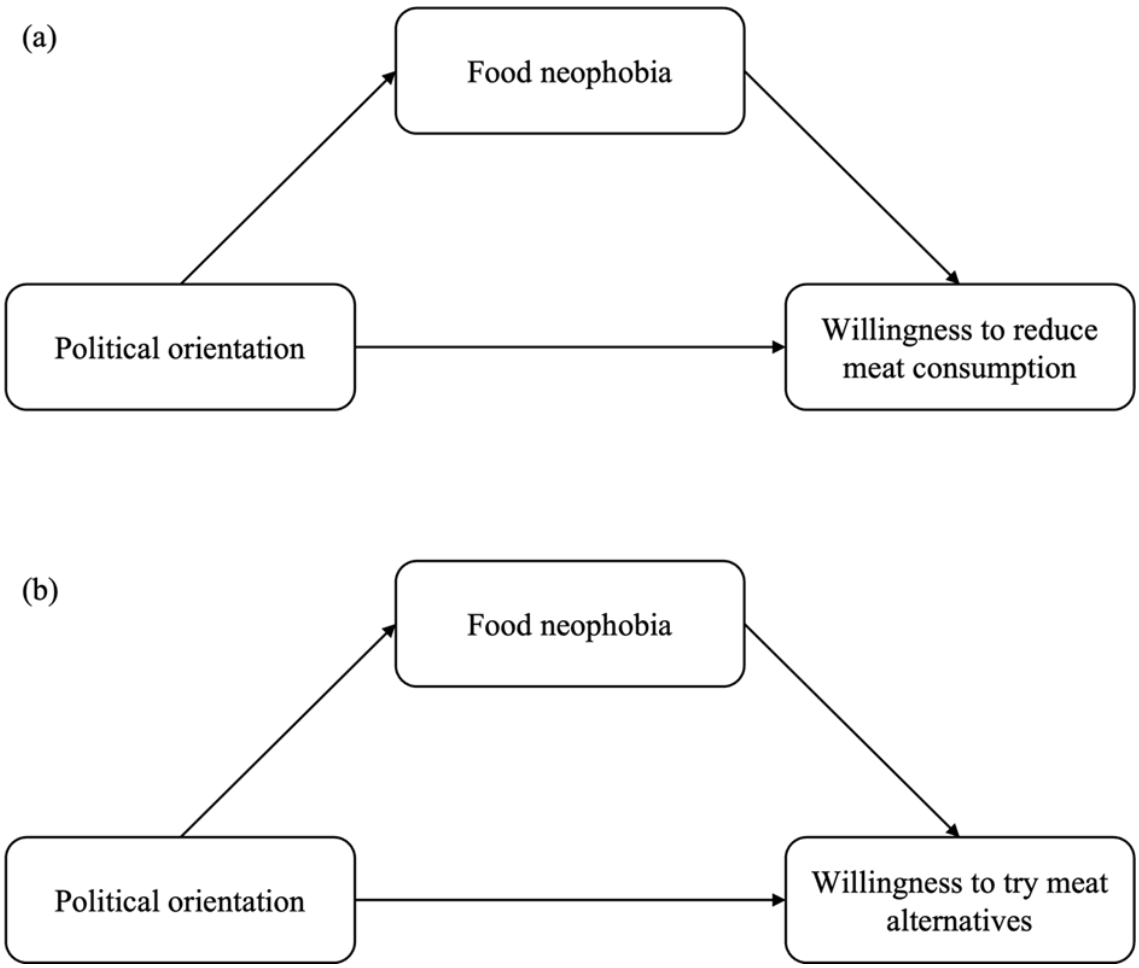


**Figure 4.1**. *Mediation model explaining the effect of the political orientation on respondents' intention to reduce their meat consumption (a) and intention to try meat alternatives (b) including the mediating role of the food neophobia.*

*All countries together*

When considering the willingness to reduce meat consumption in all countries together, results showed a significant indirect effect through the food neophobia ($B$ = -0.03, S.E. = 0.01, $z$ = -3.4, $p < .001$). Specifically, the more conservative people reported to be and the higher was their level of food neophobia and this led them to be less willing to reduce their meat consumption. Similarly, when considering the willingness to try meat alternatives in all the samples together, results showed again a significant indirect effect through the food neophobia ($B$ = -0.05, S.E. = 0.01, $z$ = -4.70, $p < .001$). In particular, the

more conservative people reported to be, the higher was their level of food neophobia and the less willing they were to try their meat alternatives.

Subsequently, we ran the same analyses separately for the 3 countries.

*Italian sample*

When considering the willingness to reduce meat consumption in the Italian sample, results showed a significant indirect effect through the food neophobia ($B$ = -0.04, S.E. = 0.02, $z$ = -2.00, $p < .05$). Specifically, the more conservative people reported to be and the higher was their level of food neophobia and this led them to be less willing to reduce their meat consumption. Similarly, when considering the willingness to try meat alternatives in this sample, results showed again a significant indirect effect through the food neophobia ($B$ = -0.06, S.E. = 0.02, $z$ = -3.13, $p < .01$). In particular, the more conservative Italians reported to be, the higher was their level of food neophobia and the less willing they were to try their meat alternatives.

*Finnish sample*

When considering the willingness to reduce meat consumption in the Finnish sample, results showed a non-significant indirect effect through the food neophobia ($B$ = -0.01, S.E. = 0.01, $z$ = -0.72, $p < .47$). Similarly, when considering the willingness to try meat alternatives in this sample, results showed again a non-significant indirect effect through the food neophobia ($B$ = -0.01, S.E. = 0.01, $z$ = -0.83, $p < .41$).

*Norwegian sample*

When considering the willingness to reduce meat consumption in the Norwegian sample, results showed a significant indirect effect through the food neophobia ($B$ = -0.05, S.E. = 0.03, $z$ = -2.00, $p < .05$). Specifically, the more conservative people reported to be and the higher was their level of food neophobia and this led them to be less willing to reduce their meat consumption. Similarly, when considering the willingness to try meat alternatives in this sample, results showed again a significant indirect effect through the

food neophobia ($B$ = -0.06, S.E. = 0.02, $z$ = -2.51, $p$ < .01). In particular, the more conservative Norwegians reported to be, the higher was their level of food neophobia and the less willing they were to try their meat alternatives.

# Chapter 5

## Discussion and Conclusions

The main aim of this study was to investigate the role of some determinants of sustainable food: what factors are involved in reducing meat consumption and trying alternatives, such as plant-based meat and legumes. The second purpose was to investigate the possible differences between different countries: Italy, Finland, and Norway. The underlying reason for this choice concerns the political and cultural differences between the selected countries. The importance of identifying the determinants of sustainable nutrition lies in being able to create effective interventions aimed at reducing meat consumption and promoting alternatives. Indeed, in order to save the planet, action to reduce CO2 emissions is indispensable, and to do this, people's habits and consumption must be changed. The earth has entered the so-called anthropocene phase, which indicates that man is primarily responsible for environmental changes. And, because of this, it is only through human action that change can take place and the established goals can be achieved, including carbon neutrality, a goal set for many countries in 2050 and for others in 2035, such as Finland.

A correlational study was employed; specifically, participants were asked to fill in an online anonymous questionnaire of 20 minutes duration through the platform “Qualtrics”.

We expected a significant and positive relationship between neophobia and political orientation (H1), and a significant relationship between political orientation and neophobia in relation to willingness to reduce meat consumption (H2). In addition, we expected a significant relationship between political orientation and neophobia in relation to willingness to try meat alternatives (H3) and that this relationship is mediated by neophobia in all three countries (H5). Finally, we expected a significant relationship between political orientation and neophobia in relation to willingness to increase legumes consumption (H4).

Results from the regression models provided support for the first hypothesis: conservative political orientation is indeed positively associated with higher levels of food neophobia. The findings are consistent with the literature: the more conservative people are, the more

food neophobic (Guidetti et al., 2022). A significant effect of the country emerged: the Italian sample has higher levels of food neophobia compared to Norway and Finland.

With respect to H4, results showed that higher levels of neophobia and conservative political orientation are associated with less willingness to increase legumes consumption. With respect to H2, food neophobia emerged to be associated with less willingness to reduce meat consumption, confirming the hypothesis. In addition, results have shown that conservatives are less willing to reduce meat consumption and they are less willing to try alternatives to meat compared to progressives, providing support for H3. Also this is consistent with the literature: right-wing individuals are more likely to identify as meat-eaters because they believe to be superior to animals and they perceive a threat to the meat-eating culture (Dhont & Hodson, 2014). The effect of country emerged one more time: Italians are the least willing to try meat alternatives and to reduce meat consumption, followed by Norwegians, and then Finns; also, Finnish people are more willing to increase legumes consumption compared to Norwegians.

In addition, mediation models showed that food neophobia plays an important role in moderating the strength of the relationship between political orientation and willingness to reduce meat consumption and try new alternatives, providing support for H4. Since food neophobia is associated with political orientation, the more people tend to identify as conservative, the more food neophobia they have, and the less willing they are to reduce meat consumption and try alternatives to meat. Conversely, the more liberal people are, the less food neophobia they will have and be more willing to make these changes. What is interesting is that this effect of neophobia emerged in Italy and Norway, but not in Finland. Possible explanations for this different pattern can be found in the policies that, for years now, Finland has been adopting in order to reach the goal of carbon neutrality by 2035; in fact, since 2021, no more meat is served at public events but only vegetarian meals. In addition, nudging strategies have been put in place in order to disincentivize meat consumption and give alternatives to it: in university cafeterias, for example, there are always three different menus, with the following order: vegan, vegetarian, and finally, omnivore. The government has indeed implemented policies, including educational programs; for this reason Finns might have a stronger environmental awareness. Regarding the Italian sample, a possible explanation for high levels of food neophobia can be found in the dietary tradition, which is highly meat-based.

Beyond these variations, we can however conclude by saying that in all three countries considered, the link between political orientation and meat consumption and willingness to try meat alternatives remains strong.

## 5.1 Limits

It is important to note that the present study has some limitations. The first one concerns the representativeness of the sample, as mainly composed of university students (age M=27.4) For this reason, generalizability of the findings to broader populations is not possible. Another limitation is represented by the validity of the questionnaire: when not validated in the needed language, scales have been translated according to the backward translation procedure, but cultural differences might have impacted some items. A replication of the study is needed. Another limitation is represented by the length of the questionnaire (20 minutes), as it could have created a loss of motivation in completing it.

## 5.2 Conclusions

The present study showed how political orientation and food neophobia play an important role in decisions concerning meat consumption and alternatives to it. For this reason, future interventions aimed at reducing meat consumption will have to consider these aspects, for example, by implementing strategies aimed at decreasing food neophobia. Sharing information, introducing food in familiar settings, exposure to novel food are just some examples of strategies that can be implemented (Stepherd & Raats, 2006).

Future research should also consider other relevant aspects, such as the role of education.

# REFERENCES

## Bibliography


Adorno, T. W., Frenkel-Brunswik, E., Levinson, D. J., & Sanford, R. N. (1950). *The authoritarian personality.* New York: Harper & Row.

Ajzen, I. (1991). The theory of planned behavior. *Organizational behavior and human decision processes*, *50*(2), 179-211.

Allport, G. W. (1958). *The nature of prejudice: Abridged*. Doubleday.

Altemeyer, B. (1981). *Right-Wing Authoritarianism.* Winnipeg: University of Manitoba Press.

Bamberg, S. (2013). Applying the stage model of self-regulated behavioral change in a car use reduction intervention. *Journal of Environmental Psychology*, *33*, 68-75.

Bamberg, S. (2013). Changing environmentally harmful behaviors: A stage model of self-regulated behavioral change. *Journal of Environmental Psychology*, *34*, 151-159.

Bimbo, F. (2023). Climate change-aware individuals and their meat consumption: Evidence from Italy. *Sustainable Production and Consumption*, *36*, 246-256.

Bouman, T., Steg, L., & Kiers, H. A. (2018). Measuring values in environmental research: A test of an environmental portrait value questionnaire. *Frontiers in psychology*, *9*, 564.

Cialdini, R. B., & Trost, M. R. (1998). Social influence: Social norms, conformity and compliance.

Connors, M., Bisogni, C. A., Sobal, J., & Devine, C. M. (2001). Managing values in personal food systems. *Appetite*, *36*(3), 189-200.

Dhont, K., & Hodson, G. (2014). Why do right-wing adherents engage in more animal exploitation and meat consumption?. *Personality and Individual differences*, *64*, 12-17.

Duckitt, J. (2001). A dual-process cognitive-motivational theory of ideology and prejudice. In Advances in experimental social psychology (Vol. 33, pp. 41-113). Academic Press. https://doi.org/10.1016/S0065-2601(01)80004-6

Duckitt, J., & Sibley, C. G. (2010). Personality, ideology, prejudice, and politics: A dual-process motivational model. *Journal of personality*, *78*(6), 1861-1894.

Duckitt, J., & Sibley, C. G. (2017). The dual process motivational model of ideology and prejudice. *The Cambridge handbook of the psychology of prejudice*, 188-221.

Duckitt, J., Wagner, C., Du Plessis, I., & Birum, I. (2002). The psychological bases of ideology and prejudice: testing a dual process model. *Journal of personality and social psychology*, *83*(1), 75.

Falk, L.W., Bisogni, C.A. and Sobal, J. (1996) Food choice processes of older adults. Journal of Nutrition Education 28, 257–26.

Furst, T., Connors, M., Bisogni, C. A., Sobal, J., & Falk, L. W. (1996). Food choice: a conceptual model of the process. *Appetite*, *26*(3), 247-266.

Guidetti, M., Carraro, L., & Cavazza, N. (2022). Dining with liberals and conservatives: The social underpinnings of food neophobia. *PloS one*, *17*(1), e0262676.

Guidetti, M., Carraro, L., Cavazza, N., & Roccato, M. (2018). Validation of the revised Food Neophobia Scale (FNS-R) in the Italian context. *Appetite*, *128*, 95-99.

Heckhausen, H., & Gollwitzer, P. M. (1987). Thought contents and cognitive functioning in motivational versus volitional states of mind. *Motivation and emotion*, *11*, 101-120.

Jost, J. T. (2006). The end of the end of ideology. *American psychologist*, *61*(7), 651.

Jost, J. T. (2019). A quarter century of system justification theory: Questions, answers, criticisms, and societal applications. *British Journal of Social Psychology*, *58*(2), 263-314.

Jost, J. T., & Banaji, M. R. (1994). The role of stereotyping in system-justification and the production of false consciousness. *British journal of social psychology*, *33*(1), 1-27.

Jost, J. T., & Thompson, E. P. (2000). Group-based dominance and opposition to equality as independent predictors of self-esteem, ethnocentrism, and social policy attitudes among African Americans and European Americans. *Journal of Experimental Social Psychology*, *36*(3), 209-232.

Jost, J. T., & Van der Toorn, J. (2012). System justification theory. *Handbook of theories of social psychology*, *2*, 313-343.

Jost, J. T., Federico, C. M., & Napier, J. L. (2009). Political ideology: Its structure, functions, and elective affinities. *Annual review of psychology*, *60*, 307-337.

Jost, J. T., Glaser, J., Kruglanski, A. W., & Sulloway, F. (2003b). Exceptions that prove the rule: Using a theory of motivated social cognition to account for ideological incongruities and political anomalies. Psychological Bulletin, 129, 383–393. https://doi.org/10.1037/0033-2909.129.3.383

Jost, J. T., Glaser, J., Kruglanski, A. W., & Sulloway, F. J. (2003a). Political conservatism as motivated social cognition. Psychological bulletin, 129(3), 339. https://doi.org/10.1037/0033-2909.129.3.339

Klöckner, C. A. (2013). A comprehensive model of the psychology of environmental behaviour—A meta-analysis. Global environmental change, 23(5), 1028-1038.

Klöckner, C. A., & Blöbaum, A. (2010). A comprehensive action determination model: Toward a broader understanding of ecological behaviour using the example of travel mode choice. *Journal of Environmental Psychology*, *30*(4), 574-586.

Klöckner, C. A., & Ofstad, S. P. (2017). Tailored information helps people progress towards reducing their beef consumption. *Journal of Environmental Psychology*, *50*, 24-36.

Kwasny, T., Dobernig, K., & Riefler, P. (2022). Towards reduced meat consumption: A systematic literature review of intervention effectiveness, 2001–2019. *Appetite*, *168*, 105739.

Lehto, E., Korhonen, K., Muilu, T., & Konttinen, H. (2023). How do values relate to the consumption of meat and dairy products and their plant-based alternatives?. *Food Quality and Preference*, *106*, 104804.

Murphy, R. O., & Ackermann, K. A. (2014). Social value orientation: Theoretical and measurement issues in the study of social preferences. *Personality and Social Psychology Review*, *18*(1), 13-41.

Pliner, P., & Hobden, K. (1992). Development of a scale to measure the trait of food neophobia in humans. *Appetite*, *19*(2), 105-120.

Poore, J., & Nemecek, T. (2018). Reducing food's environmental impacts through producers and consumers. *Science*, *360*(6392), 987-992.

Pratto, F., Sidanius, J., Stallworth, L. M., & Malle, B. F. (1994). Social dominance orientation: A personality variable predicting social and political attitudes. *Journal of personality and social psychology*, *67*(4), 741.

Rappange, D. R., Brouwer, W. B., & Van Exel, N. J. A. (2009). Back to the consideration of future consequences scale: Time to reconsider?. *The Journal of social psychology*, *149*(5), 562-584.

Reynolds, W. M. (1982). Development of reliable and valid short forms of the Marlowe-Crowne Social Desirability Scale. *Journal of clinical psychology*, *38*(1), 119-125.

Richardson, K., Steffen, W., Lucht, W., Bendtsen, J., Cornell, S. E., Donges, J. F., ... & Rockström, J. (2023). Earth beyond six of nine Planetary Boundaries. *Science Advances*, *9*(37), eadh2458.

Ritchie, H., Rosado, P., & Roser, M. (2017). Meat and dairy production. *Our world in data*.

Ritchie, H., & Roser, M. (2020). Environmental impacts of food production. *Our world in data*.

Rockström, J., Steffen, W., Noone, K., Persson, Å., Chapin, F. S., Lambin, E. F., ... & Foley, J. A. (2009). A safe operating space for humanity. *nature*, *461*(7263), 472-475.

Schwartz, S. H. (1977). Normative influences on altruism. In *Advances in experimental social psychology* (Vol. 10, pp. 221-279). Academic Press.

Schwartz, S. H. (1992). Universals in the content and structure of values: Theoretical advances and empirical tests in 20 countries. In *Advances in experimental social psychology* (Vol. 25, pp. 1-65). Academic Press.

Schwartz, S. H. (1994). Beyond individualism/collectivism: New cultural dimensions of values.

Schwartz, S. H. (2012). An overview of the Schwartz theory of basic values. *Online readings in Psychology and Culture*, *2*(1), 11.

Schwartz, S. H., & Howard, J. A. (1981). A normative decision-making model of altruism. *Altruism and helping behavior*, 189-211.

Seo, M., Yang, S., & Laurent, S. M. (2023). No one is an island: Awe encourages global citizenship identification. *Emotion*, *23*(3), 601.

Sobal, J., Bisogni, C. A., Devine, C. M., & Jastran, M. (2006). A conceptual model of the food choice process over the life course. In *The psychology of food choice* (pp. 1-18). Wallingford UK: Cabi.

Sparkman, G., & Walton, G. M. (2017). Dynamic norms promote sustainable behavior, even if it is counternormative. *Psychological science*, *28*(11), 1663-1674.

Sparkman, G., Weitz, E., Robinson, T. N., Malhotra, N., & Walton, G. M. (2020). Developing a scalable dynamic norm menu-based intervention to reduce meat consumption. *Sustainability*, *12*(6), 2453.

Steg, L., & de Groot, J. I. M. (2019). *Environmental psychology: An introduction.* John Wiley & Sons.

Stephan, W. G., & Stephan, C. W. (2013). An integrated threat theory of prejudice. In *Reducing prejudice and discrimination* (pp. 23-45). Psychology Press.

Shepherd, R., & Raats, M. (Eds.). (2006). *The psychology of food choice*. Cabi.

Stern, P. C. (2000). New environmental theories: toward a coherent theory of environmentally significant behavior. *Journal of social issues*, *56*(3), 407-424.

Taufik, D. (2018). Prospective "warm-glow" of reducing meat consumption in China: Emotional associations with intentions for meat consumption curtailment and consumption of meat substitutes. *Journal of Environmental Psychology*, *60*, 48-54.

Uenal, F., Sidanius, J., & van der Linden, S. (2022). Social and ecological dominance orientations: Two sides of the same coin? Social and ecological dominance orientations predict decreased support for climate change mitigation policies. *Group Processes & Intergroup Relations*, *25*(6), 1555-1576.

Van der Linden, S. (2015). The social-psychological determinants of climate change risk perceptions: Towards a comprehensive model. *Journal of Environmental Psychology*, *41*, 112-124.

Van der Werff, E., Steg, L., & Keizer, K. (2013). It is a moral issue: The relationship between environmental self-identity, obligation-based intrinsic motivation and pro-environmental behaviour. *Global environmental change*, *23*(5), 1258-1265.

Veneziani, C. A., & Voci, A. (2015). The Italian adaptation of the Mindful Awareness Attention Scale and its relation with individual differences and quality of life indexes. *Mindfulness*, *6*, 373-381.

## Sitography

Eat-Lancet Commission (2019). https://eatforum.org/content/uploads/2019/07/EAT-Lancet_Commission_Summary_Report.pdf

UNCC (n.d). *Key aspects of the Paris Agreement.* https://unfccc.int/most-requested/key-aspects-of-the-paris-agreement#:~:text=Long%2Dterm%20temperature%20goal%20(Art,the%20increase%20to%201.5%20degrees.

Stockolm Resilience Centre https://www.stockholmresilience.org/research/planetary-boundaries.html

WWF (n.d). *Cambiamenti climatici.* https://www.wwf.it/cosa-facciamo/clima/cambiamenti-climatici/

Our World in Data (2023). *Per capita meat consumption by type, 2020.*

https://ourworldindata.org/grapher/per-capita-meat-type?country=NOR~FIN~ITA

# APPENDIX

Gentile partecipante,
ti proponiamo di aderire ad uno studio on-line il cui scopo è quello di comprendere se e quanto le persone sono disposte a cambiare alcuni aspetti della propria alimentazione. Ti verrà chiesto di rispondere ad alcune domande specifiche sulle tue intenzioni e successivamente di compilare alcune scale relative alle tue personali caratteristiche individuali. Di seguito è riportata la struttura del questionario. Inoltre, alla fine della compilazione, ti verranno fornite ulteriori informazioni relative agli scopi del presente studio.

**DESCRIZIONE**

Il questionario è diviso in 4 parti principali:
1) Domande relative alle sue personali intenzioni di consumo alimentare e di supporto di specifiche proposte politiche
2) Domande relative alla personale percezione dei benefici di tali comportamenti, alla percezione del rischio e alla percezione di autoefficacia
3) Domande relative ad alcune variabili individuali che possono influenzare il comportamento
4) Domande socio-demografiche.
Il tempo previsto per la compilazione è di circa 20 minuti.

**TRATTAMENTO DATI**

Tutte le informazioni raccolte in questa ricerca saranno trattate nel rispetto delle vigenti leggi D.Lgs.196/2003 sulla privacy e UE GDPR 679/2016 sulla protezione dei dati personali e dell'art. 9 del Codice Deontologico degli Psicologi Italiani. I suoi dati saranno analizzati in modo anonimo e con tutti i criteri che garantiscono la massima riservatezza, utilizzati unicamente ai fini della ricerca medesima. Il responsabile della ricerca è la dott.ssa Elisa Tedaldi, afferente al Dipartimento di Psicologia dello Sviluppo e della Socializzazione. Il responsabile della ricerca si impegna ad adempiere agli obblighi previsti dalla normativa vigente in termine di raccolta, trattamento e conservazione di dati sensibili. Ogni partecipante ha in ogni momento facoltà di esercitare i diritti di cui all'art. 7 del D.Lgs.196/2003. I dati, raccolti ed elaborati in forma aggregata e anonima, potranno essere inseriti in pubblicazioni e/o presentati a congressi o seminari scientifici. Il trattamento dei suoi dati sarà avviato solo con la sottoscrizione di tale consenso.

**DICHIARO**:
- Di essere maggiorenne
- Di aderire volontariamente alla realizzazione della ricerca in qualità di partecipante
- Di essere a conoscenza degli obiettivi e delle finalità di tale progetto di ricerca
- Di essere a conoscenza che i dati ricavati, nell'assoluto anonimato, saranno trattati esclusivamente per fini didattici e di ricerca
- Di essere consapevole che non è possibile ottenere la restituzione dei dati raccolti una volta inviati.

Per eventuali chiarimenti è possibile contattare la dott.ssa Elisa Tedaldi, e-mail: elisa.tedaldi@phd.unipd.it.

**Grazie mille per il tuo prezioso contributo!**

**Proseguendo nella compilazione del questionario esprimo il consenso a partecipare alla ricerca.**

Sì, do il mio consenso alla partecipazione al presente studio

No, non do il mio consenso alla partecipazione al presente studio

Vi sono diverse tipologie di diete che le persone possono seguire, di seguito sono riportate le principali quattro macro-categorie di diete:
- Dieta onnivora: dieta che prevede il consumo di qualsiasi tipo di alimento. In questo studio includiamo carne e/o pesce, ovvero rientrano in questa categoria anche le persone che mangiano ad esempio pesce ma non carne;
- Dieta flexitariana: dieta che prevede principalmente il consumo di alimenti vegetali e poco processati, al fine di ridurre il consumo di carne e pesce;
- Dieta vegetariana: dieta che esclude completamente il consumo di carne e pesce, ma prevede il consumo di alimenti di derivazione animale (es. uova, latte, formaggi, miele);
- Dieta vegana: dieta che esclude completamente il consumo di qualunque alimento di origine animale, quindi carne e pesce, come anche uova, latte, formaggi, miele.

Per favore, indica di seguito che tipo di dieta segui al momento attuale:

- Onnivora (includendo carne e/o pesce)
- Flexitariana (o semi-vegetariana)
- Vegeratiana
- Vegana

Prima di iniziare questo studio, vorremmo chiarire la definizione di comportamento sostenibile. Un comportamento si definisce sostenibile quando tiene conto della necessità di preservare il pianeta per le generazioni presenti e future, considerando lo sviluppo economico, ambientale e sociale. Un esempio di comportamento sostenibile può essere quello dell'alimentazione. In particolare, l'alimentazione si definisce sostenibile quando ha un basso impatto ambientale, contribuisce alla sicurezza alimentare e nutrizionale e a una vita sana per le generazioni presenti e future. L'alimentazione sostenibile è protettiva e rispettosa della biodiversità e degli ecosistemi, culturalmente accettabile, accessibile, economicamente equa e conveniente, nutrizionalmente adeguata, sicura e salutare, ottimizzando le risorse naturali e umane.

→

A prescindere dal tipo di dieta che hai, quanto ti interessa mangiare meno carne?

| Per niente 1 | 2 | 3 | Un po' 4 | 5 | 6 | Estremamente 7 |
|---|---|---|---|---|---|---|

→

Per favore, indica per ognuna delle seguenti affermazioni il tuo grado di accordo da 1 a 7.

| | Completamente in disaccordo 1 | 2 | 3 | 4 | 5 | 6 | Completamente d'accordo 7 |
|---|---|---|---|---|---|---|---|
| Sono disposto a mangiare la carne meno spesso ogni settimana | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Sono disposto a mangiare quantità minori di carne ad ogni pasto | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Sono disposto ad adottare una dieta a base più vegetale | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Ho intenzione di ridurre la mia assunzione di carne nel prossimo futuro | ○ | ○ | ○ | ○ | ○ | ○ | ○ |

→

Sembra che sia aumentato il numero di alternative alla carne disponibili sia in Italia che in altri Paesi. Tra queste alternative, le più famose sono:
- carne coltivata (anche conosciuta come "carne in vitro"): questa carne è prodotta utilizzando cellule staminali di animali che si moltiplicano in vitro o in bioreattori;
- carne vegetale (anche detta "plant-based meat"): questa carne è prodotta utilizzando cellule vegetali provenienti da leguminose o cereali (come ad esempio, soia, piselli, grano);
- polpette o burger di insetti: questi burger sono prodotti utilizzando larve della farina (*Tenebrio monitor*) come componente proteico;
- polpette o cotolette vegatili proteiche: questi prodotti sono polpette o cotolette prodotte utilizzando legumisone, cereali o vegetali di altro tipo (come ad esempio, soia, farro, spinaci, melanzane, ecc.).

Per favore riporta, in una scala da 1 a 7, quanto saresti disposta/o ad acquistare ognuno dei seguenti prodotti:

| | 1 Per nulla | 2 | 3 | 4 | 5 | 6 | 7 Moltissimo |
|---|---|---|---|---|---|---|---|
| Carne vegetale (o "plant-based meat") | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Carne coltivata (o "carne in vitro") | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Polpette e/o burger di insetti | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Polpette e/o cotolette vegetali proteiche | ○ | ○ | ○ | ○ | ○ | ○ | ○ |

→

Per favore riporta, in una scala da 1 a 7, quanto saresti disposta/o ad aumentare il tuo consumo di cereali e legumi per sostituire la carne:

| 1 Per nulla | 2 | 3 | 4 | 5 | 6 | 7 Moltissimo |
|---|---|---|---|---|---|---|

→

Per favore, indica di seguito, in una scala da 1 a 7, quanto sei d'accordo con ognuna delle seguenti affermazioni:

| | 1 Completamente in disaccordo | 2 | 3 | 4 | 5 | 6 | 7 Completamente d'accordo |
|---|---|---|---|---|---|---|---|
| Mangiare meno carne sarebbe benefico per la mia salute. | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Mangiare meno carne ridurrebbe le mie emissioni di CO2. | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Mangiare meno carne mi farebbe risparmiare soldi. | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Mangiare meno carne sarebbe approvato dalle persone che conosco. | ○ | ○ | ○ | ○ | ○ | ○ | ○ |

→

Per favore, indica per ognuna delle seguenti proposte politiche quanto credi che siano urgenti in una scala da 1 a 7.

| | Per niente 1 | 2 | 3 | 4 | 5 | 6 | Estremamente 7 |
|---|---|---|---|---|---|---|---|
| Promozione di campagne di sensibilizzazione sulla raccolta differenziata per tutta la cittadinanza | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Promozione di campagne di sensibilizzazione sull'alimentazione sostenibile per tutta la cittadinanza | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Inserimento di ore di educazione alimentare sostenibile nelle scuole dalla prima infanzia | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Stanziamento di incentivi economici diretti agli agricoltori per implementare nuove tecnologie per un'agricoltura sostenibile | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Implementazione di sistemi digitali per la riduzione degli sprechi alimentari dagli stadi di produzione fino a quelli della vendita ai consumatori | ○ | ○ | ○ | ○ | ○ | ○ | ○ |

| | Per niente 1 | 2 | 3 | 4 | 5 | 6 | Estremamente 7 |
|---|---|---|---|---|---|---|---|
| Divieto di composti chimici nocivi per l'ambiente nella produzione tessile | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Divieto di utilizzo di pesticidi dannosi per l'ambiente e la biodiversità | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Stanziamento di incentivi economici diretti per migliorare l'efficienza e la percentuale di mezzi di trasporto pubblici | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Promozione del benessere animale negli allevamenti, mediante l'abolizione degli allevamenti di massa e l'implementazione di tecniche macellazione rispettose | ○ | ○ | ○ | ○ | ○ | ○ | ○ |

→

Quanto sei preoccupata/o del cambiamento climatico?

| | | | | | | |
|---|---|---|---|---|---|---|
| Per niente preoccupata/o 1 | 2 | 3 | 4 | 5 | 6 | Molto preoccupata/o 7 |

A tuo giudizio, quanto è probabile che tu, in qualche momento della tua vita, sperimenti gravi minacce alla sua salute o al tuo benessere generale, come risultato del cambiamento climatico?

| | | | | | | |
|---|---|---|---|---|---|---|
| Molto improbabile 1 | 2 | 3 | 4 | 5 | 6 | Molto probabile 7 |

A tuo giudizio, quanto è probabile che il cambiamento climatico abbia impatti molto dannosi a lungo termine sulla nostra società?

| | | | | | | |
|---|---|---|---|---|---|---|
| Molto improbabile 1 | 2 | 3 | 4 | 5 | 6 | Molto probabile 7 |

Quanto pensi che la minaccia del cambiamento climatico sia grave per l'ambiente naturale?

| | | | | | | |
|---|---|---|---|---|---|---|
| Per niente grave 1 | 2 | 3 | 4 | 5 | 6 | Molto grave 7 |

Quanto giudicheresti gravi gli attuali impatti del cambiamento climatico nel mondo?

| | | | | | | |
|---|---|---|---|---|---|---|
| Per niente gravi 1 | 2 | 3 | 4 | 5 | 6 | Molto gravi 7 |

Quanto pensi che la minaccia del cambiamento climatico sia grave per te personalmente?

| | | | | | | |
|---|---|---|---|---|---|---|
| Per niente grave 1 | 2 | 3 | 4 | 5 | 6 | Molto grave 7 |

Quanto gravi ritieni che siano gli impatti del cambiamento climatico per l'Italia?

| | | | | | | |
|---|---|---|---|---|---|---|
| Per niente gravi 1 | 2 | 3 | 4 | 5 | 6 | Molto gravi 7 |

Quanto spesso ti preoccupi delle conseguenze potenzialmente negative del cambiamento climatico?

| | | | | | | |
|---|---|---|---|---|---|---|
| Molto raramente 1 | 2 | 3 | 4 | 5 | 6 | Molto spesso 7 |

→

Per favore, indica per ognuna delle seguenti affermazioni il tuo grado di accordo da 1 a 7.

| | Completamente in disaccordo 1 | 2 | 3 | 4 | 5 | 6 | Completamente d'accordo 7 |
|---|---|---|---|---|---|---|---|
| Mangiare alimenti sostenibili è una parte importante di me | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Sono il tipo di persona che mangia alimenti sostenibili | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Mi vedo come una persona con un'alimentazione sostenibile | ○ | ○ | ○ | ○ | ○ | ○ | ○ |

→

Per favore, indica per ognuna delle seguenti affermazioni il tuo grado di accordo da -3 a +3.

| | Completamente in disaccordo -3 | -2 | -1 | 0 | +1 | +2 | Completamente d'accordo +3 |
|---|---|---|---|---|---|---|---|
| Assaggio sempre cibi nuovi e diversi. | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Non mi fido dei cibi nuovi. | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Se non so cosa c'è in una pietanza non la provo. | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Mi piacciono cibi di diversi paesi. | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Il cibo etnico sembra strano. | ○ | ○ | ○ | ○ | ○ | ○ | ○ |

| | Completamente in disaccordo -3 | -2 | -1 | 0 | +1 | +2 | Completamente d'accordo +3 |
|---|---|---|---|---|---|---|---|
| Durante le feste sarei disposto a provare cibi nuovi. | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Ho paura di mangiare cibo mai provato prima. | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Per quanto riguarda il cibo che mangio mi reputo una persona difficile. | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Mangio quasi tutto. | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Mi piace provare nuovi ristoranti etnici. | ○ | ○ | ○ | ○ | ○ | ○ | ○ |

→

| | Per niente | Non tanto | Un po' | Abbastanza | Molto |
|---|---|---|---|---|---|
| Penso a come potrebbe essere la mia vita in futuro e cerco di migliorare il mio futuro con le cose che faccio ora. | ○ | ○ | ○ | ○ | ○ |
| Spesso faccio cose che potrebbero darmi piacere solo a lungo termine. | ○ | ○ | ○ | ○ | ○ |
| Faccio solo cose che mi piacciono e non mi preoccupo di ciò che potrebbe accadere in seguito. | ○ | ○ | ○ | ○ | ○ |
| Faccio solo cose che mi danno piacere subito. | ○ | ○ | ○ | ○ | ○ |

| | Per niente | Non tanto | Un po' | Abbastanza | Molto |
|---|---|---|---|---|---|
| Preferisco scegliere la soluzione di minor fatica. | ○ | ○ | ○ | ○ | ○ |
| Sono disposto a fare qualcosa che non mi diverte molto se poi mi ripaga. | ○ | ○ | ○ | ○ | ○ |
| Credo che sia importante sapere se le cose possono avere conseguenze negative, anche se si rischia di non scoprirle per molto tempo. | ○ | ○ | ○ | ○ | ○ |
| Penso che sia meglio fare qualcosa di molto importante per il futuro che qualcosa di poco importante per ora. | ○ | ○ | ○ | ○ | ○ |

| | Per niente | Non tanto | Un po' | Abbastanza | Molto |
|---|---|---|---|---|---|
| Alcune cose potrebbero avere conseguenze negative a lungo termine, ma non me ne preoccupo troppo. Risolverò le cose prima che diventino troppo gravi. | ○ | ○ | ○ | ○ | ○ |
| Penso che sacrificarsi ora a causa di possibili conseguenze future non sia necessario. Posso affrontare le conseguenze future in un secondo momento. | ○ | ○ | ○ | ○ | ○ |
| Faccio solo cose che mi piacciono in questo momento. Risolverò eventuali problemi futuri quando si presenteranno. | ○ | ○ | ○ | ○ | ○ |
| Poiché i risultati del mio comportamento ora sono chiari, sono più importanti per me di possibili risultati lontani. | ○ | ○ | ○ | ○ | ○ |

→

Di seguito sono riportate alcune affermazioni sulle tue esperienze quotidiane. Utilizzando la scala da 1 a 7, ti preghiamo di indicare la frequenza con cui ti capita di provare ognuna delle esperienze descritte. Per favore, rispondi in base alle tue esperienze reali, piuttosto che a come pensi che dovrebbero essere.

| | Quasi mai 1 | 2 | 3 | 4 | 5 | 6 | Quasi sempre 7 |
|---|---|---|---|---|---|---|---|
| Potrei fare esperienza di alcune emozioni e non esserne cosciente fino a qualche tempo dopo. | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Rompo o faccio cadere cose per sbadataggine, non prestando attenzione, o pensando ad altro. | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Mi riesce difficile restare concentrato/a su quello che sta accadendo nel presente. | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Tendo a camminare velocemente per arrivare dove sono diretto/a senza prestare attenzione a ciò che incontro lungo la strada. | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Tendo a non notare sensazioni di tensione o di disagio fisico fino a quando non catturano veramente la mia attenzione. | ○ | ○ | ○ | ○ | ○ | ○ | ○ |

| | Quasi mai 1 | 2 | 3 | 4 | 5 | 6 | Quasi sempre 7 |
|---|---|---|---|---|---|---|---|
| Dimentico il nome di una persona quasi subito dopo che mi viene detto per la prima volta. | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Mi sembra di andare in automatico senza rendermi conto di cosa sto facendo. | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Faccio le cose in fretta senza essere attento/a ad esse. | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Sono così concentrato/a sull'obiettivo che voglio ottenere che perdo il contatto con quello che sto facendo nel presente per raggiungerlo. | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Compio lavori o attività in modo automatico, senza essere consapevole di quello che sto facendo. | ○ | ○ | ○ | ○ | ○ | ○ | ○ |

| | Quasi mai 1 | 2 | 3 | 4 | 5 | 6 | Quasi sempre 7 |
|---|---|---|---|---|---|---|---|
| Mi trovo ad ascoltare qualcuno con un orecchio e fare qualcos'altro allo stesso tempo. | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Mi capita di guidare con il "pilota automatico", di arrivare in un posto, e di domandarmi perché ci sono andato. | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Mi trovo a preoccuparmi per il futuro o per il passato. | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Mi ritrovo a fare le cose senza prestare attenzione. | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Faccio spuntini senza essere consapevole che sto mangiando. | ○ | ○ | ○ | ○ | ○ | ○ | ○ |

→

Di seguito troverai brevi descrizioni di diverse persone. Per ogni persona descriviamo ciò che è molto importante per lui/lei. Per favore, leggi attentamente ogni descrizione e indica quanto questa persona è simile a te. Il significato dei punteggi è il seguente: 1 significa che la persona non è assolutamente come te, 7 significa che la persona è totalmente simile a te. Quindi, più alto è il punteggio, più la persona è simile a te.

Per favore, cerca di variare il più possibile le tue risposte usando i diversi punteggi. Le persone più simili a te dovrebbero quindi ricevere i punteggi più alti. Le persone meno simili a te, i più bassi.

| | Totalmente differente da me | | | | | | Totalmente simile a me |
|---|---|---|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Per [lui/lei] è importante che ogni persona abbia pari opportunità. | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Per [lui/lei] è importante fare cose per cui si diverte. | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Per [lui/lei] è importante essere in unità con la natura. | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Per [lui/lei] è importante avere autorità sugli altri. | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Per [lui/lei] è importante che ogni persona sia trattata in modo giusto. | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Per [lui/lei] è importante essere influente. | ○ | ○ | ○ | ○ | ○ | ○ | ○ |

| | Totalmente differente da me | | | | | | Totalmente simile a me |
|---|---|---|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Per [lui/lei] è importante avere denaro e possedimenti. | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Per [lui/lei] è importante godere dei piaceri della vita. | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Per [lui/lei] è importante avere il controllo sulle azioni degli altri. | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Per [lui/lei] è importante divertirsi. | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Per [lui/lei] è importante lavorare sodo ed essere ambizioso. | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Per [lui/lei] è importante prevenire l'inquinamento ambientale. | ○ | ○ | ○ | ○ | ○ | ○ | ○ |

| | Totalmente differente da me | | | | | | Totalmente simile a me |
|---|---|---|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Per [lui/lei] è importante proteggere l'ambiente. | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Per [lui/lei] è importante rispettare la natura. | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Per [lui/lei] è importante prendersi cura di coloro che stanno peggio. | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Per [lui/lei] è importante che non ci siano guerre o conflitti. | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Per [lui/lei] è importante essere utile agli altri. | ○ | ○ | ○ | ○ | ○ | ○ | ○ |

→

**Le opinioni su come gli esseri umani, gli animali e l'ambiente naturale dovrebbero relazionarsi tra loro possono essere diverse per ogni persona. Utilizzando l'immagine sottostante come guida, indica quale schema pensi che rappresenti la tua opinione.**

Più si sposta il cursore verso destra, più si indica una preferenza per un rapporto più gerarchico tra uomo, animali e ambiente naturale. Più si sposta il cursore verso sinistra, più si indica una preferenza per un rapporto meno gerarchico.

Meno gerarchico — Più gerarchico

1 2 3 4 5 6 7

→

Per favore, indica per ognuna delle seguenti affermazioni il tuo grado di accordo da 1 a 7.

| | Completamente in disaccordo 1 | 2 | 3 | 4 | 5 | 6 | Completamente d'accordo 7 |
|---|---|---|---|---|---|---|---|
| Mi sento moralmente obbligata/o ad avere un'alimentazione sostenibile. | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Mi sentirei in colpa se non avessi un'alimentazione sostenibile. | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Mi sentire una persona migliore se avessi un'alimentazione sostenibile. / Mi sento una persona migliore avendo un'alimentazione sostenibile. | ○ | ○ | ○ | ○ | ○ | ○ | ○ |

→

Per favore, indica di seguito il tuo grado di accordo da 1 a 7 con la seguente affermazione:

"**Mi descriverei come un cittadino del mondo**"

| Completamente in disaccordo 1 | 2 | 3 | 4 | 5 | 6 | Completamente d'accordo 7 |
|---|---|---|---|---|---|---|

→

Per favore, indica di seguito il tuo grado di accordo da 1 a 7 con ognuna delle seguenti affermazioni:

| | Completamente in disaccordo 1 | 2 | 3 | 4 | 5 | 6 | Completamente d'accordo 7 |
|---|---|---|---|---|---|---|---|
| Sento di condividere un destino comune con gli altri esseri umani. | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Sento di appartenere all'umanità nella sua interezza. | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Sento di essere strettamente connesso con altre persone nel mondo. | ○ | ○ | ○ | ○ | ○ | ○ | ○ |

→

Ora ti chiediamo di indicare quanto sono vere per te le seguenti affermazioni, in una scala da 1 a 5.

| | Completamente falso 1 | 2 | 3 | 4 | Completamente vero 5 |
|---|---|---|---|---|---|
| A volte per me è difficile andare avanti col mio lavoro se non sono incoraggiato. | ○ | ○ | ○ | ○ | ○ |
| A volte mi sento amareggiato quando non ottengo ciò che voglio. | ○ | ○ | ○ | ○ | ○ |
| In qualche occasione, ho rinunciato a fare qualcosa perché pensavo di non riuscirci. | ○ | ○ | ○ | ○ | ○ |
| In certi casi, avrei voluto ribellarmi all'autorità, pur sapendo che aveva ragione. | ○ | ○ | ○ | ○ | ○ |
| Non importa con chi sto parlando, io sono sempre un buon ascoltatore. | ○ | ○ | ○ | ○ | ○ |

| | Completamente falso 1 | 2 | 3 | 4 | Completamente vero 5 |
|---|---|---|---|---|---|
| Mi è capitato di approfittarmi della disponibilità di qualcuno. | ○ | ○ | ○ | ○ | ○ |
| Sono sempre disposto ad ammettere quando sbaglio. | ○ | ○ | ○ | ○ | ○ |
| A volte cerco di vendicarmi invece di perdonare e dimenticare. | ○ | ○ | ○ | ○ | ○ |
| Sono sempre cortese, anche con le persone sgradevoli. | ○ | ○ | ○ | ○ | ○ |
| Non sono mai infastidito quando le persone esprimono idee molto diverse dalle mie. | ○ | ○ | ○ | ○ | ○ |

| | Completamente falso 1 | 2 | 3 | 4 | Completamente vero 5 |
|---|---|---|---|---|---|
| A volte sono stato molto invidioso della fortuna degli altri. | ○ | ○ | ○ | ○ | ○ |
| A volte mi sento infastidito dalle persone che mi chiedono favori. | ○ | ○ | ○ | ○ | ○ |
| Non ho mai detto qualcosa con l'intenzione di ferire qualcuno. | ○ | ○ | ○ | ○ | ○ |

→

Per favore, indica la tua età (in anni compiuti):

Indica il genere in cui ti identifichi:

- Femmina
- Maschio
- Non-binario
- Altro

Per favore, indica il più alto grado di istruzione che hai conseguito:

- Scuola Media o inferiore
- Scuola Superiore
- Laurea Triennale
- Laurea Magistrale
- Specializzazione/Dottorato di Ricerca

Qual è il tuo orientamento politico?

| Estrema sinistra | Sinistra | Centro sinistra | Centro | Centro destra | Destra | Estrema destra |
|---|---|---|---|---|---|---|

Pensa a questa scala come a una rappresentazione della posizione delle persone in Italia. Nella parte **alta** della scala, ci sono le persone che stanno meglio - quelle che hanno più soldi, più alto grado di istruzione e i lavori più rispettati. Nella parte **bassa** della scala, ci sono le persone che stanno peggio: quelle che hanno meno soldi, minor grado di istruzione, i lavori meno rispettati o nessun lavoro. Più si è in alto in questa scala, più si è vicini alle persone in alto; più si è in basso, più si è vicini alle persone in basso.

**Dove ti collocheresti su questa scala?**

Scegli il piolo in cui pensi di trovarti in questo momento della tua vita rispetto alle altre persone in Italia.

Piolo 10 (in alto) Le persone qui stanno meglio

Piolo 9

Piolo 8

Piolo 7

Piolo 6

Piolo 5

Piolo 4

Piolo 3

Piolo 2

Piolo 1 (in basso) Le persone qui sono quelle che stanno peggio

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Gentile partecipante,

Il questionario è finito, grazie mille per il tuo prezioso contributo! Qui di seguito è riportato il debriefing, ovvero la spiegazione delle misure e degli scopi del presente studio a cui ha appena partecipato.
Il nostro obiettivo è quello di indagare l'intenzione delle persone a ridurre il proprio consumo di carne e a sostenere proposte politiche che mirano a ridurre tale consumo nella popolazione generale. Inizialmente è stata richiesta ad ogni partecipante il tipo di dieta sostenuta, in modo da non presentare le prime domande sull'intenzione a ridurre il consumo di carne a vegetariani e vegani (che già non la consuma del tutto). Quindi onnivori e flexitariani hanno risposto alle stesse domande volte ad indagare tali intenzioni a ridurre il consumo di carne e a provare alternative della carne. Successivamente, tutti i partecipanti (a prescindere dalla loro dieta) hanno risposto a una serie di domande volte ad indagare quanto vengano supportate proposte politiche che mirano ad un'alimentazione sostenibile, come vengono percepiti i possibili benefici dovuti alla riduzione del proprio consumo di carne (Taufik, 2018), e quanto rischioso percepiscono il cambiamento climatico (van der Linden, 2015; 2017). Infine, ogni partecipante ha compilato una serie di scale volte ad indagare alcune caratteristiche individuali, ovvero riguardanti: la "green identity" (adattata da Van der Werff et al., 2013), la Food Neophobia Scale (FNS; Pliner & Hobden, 1992; Guidetti et al., 2018), la Concern for Future Consequences scale (CFC; Rappange et al., 2009; Strathman et al., 1994), la Mindful Attention Awareness Scale (MASS; Brown & Ryan, 2003; Veneziani & Voci, 2015), la Environmental Portrait Value Questionnaire (E-PVQ; Bouman, Steg, & Kiers, 2018), Personal norm (adattata da Van der Werff et al., 2013), l'Ecological Dominance Orientations (EDO; Uenal et al., 2021), e la Global citizenship (Seo et al., 2022).

L'obiettivo del presente studio è indagare quali fattori influenzano l'intenzione a consumare meno carne e a sostenere proposte politiche in questa direzione, sia nel caso di coloro che consumano carne nella loro dieta, che nel caso di coloro che non la consumano (ovvero, quanto sostengono proposte politiche che mirano ad un'alimentazione sostenibile, dalle fasi di produzioni fino a quelle di consumo). Specificatamente, vogliamo vedere quale beneficio è più rilevante per tali intenzioni e quanto la percezione del rischio del cambiamento climatico porta le persone a voler ridurre il proprio consumo di carne. Inoltre, vogliamo anche indagare quanto la fobia per cibi nuovi (quali ad esempio potrebbero essere le alternative alla carne), la considerazione delle conseguenze future delle proprie azioni (come ad esempio i consumi settimanali di carne), l'essere (più o meno) mindful (come ad esempio essere più consapevole e attenti a ciò che si compra e consuma) e avere valori più biosferici o più egoistici (come ad esempio avere valori per cui si presta maggiore attenzione al proprio impatto ambientale o alle proprie spese economiche) possono influenzare l'intenzione a ridurre il consumo di carne. Così come anche caratteristiche quali il riconoscimento di avere un'identità "green", sentire delle norme personali legate all'azione pro-ambientale, sentirsi cittadini del mondo e avere una visione meno gerarchica del mondo, possano influenzare l'intenzione a ridurre il proprio consumo di carne e a supportare politiche volte allo stesso obiettivo ma su scala più sociale (che personale).

Ancora una volta, ti ringraziamo per aver preso parte a questo studio. Se volessi ricevere maggiori informazioni a riguardo, per favore contatta la dott.ssa Elisa Tedaldi al seguente indirizzo mail: elisa.tedaldi@phd.unipd.it.

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