



The effects of political ideology on consumer behavior regarding flavor preference

Iga Zukowski

Dissertation written under the supervision of
Professor Daniel Fernandes

Dissertation submitted in partial fulfilment of requirements for the MSc in
Management with specialization in Strategy, Entrepreneurship and Impact, at the
Universidade Católica Portuguesa, 4th of January 2023.

Abstract

Title: The effects of political ideology on consumer behavior regarding flavor preference

Author: Iga Zukowski

Even though this field is rather recently studied, linkages between political ideology and consumer behavior were identified in the past. Several findings are based on certain psychological drivers, which indicate that motivational forces and inherent tendencies influence which political ideology we follow as well as the behavior of individuals in a consumption context. Based on studies that reveal more openness of liberals than conservatives towards new or novel products, this master thesis analyzes if this observation can also be applied on the openness and willingness to try rather untypical and non-classic flavors. Hence, it is tested if political ideology has an effect on the preference of consumers with respect to traditional and non-traditional flavors, that was analyzed on a conscious and unconscious level. The conducted research shows that an effect could only be found regarding a self-evaluation of participants about their willingness to try a new flavor of a product they already know, namely it could be observed that left-wing individuals rate the probability of them trying the new taste as lower in comparison to moderate/neutral people. Two more analyses, one that was also directly asking and another one that was testing the flavor preference without the participants knowing, resulted in insignificant findings. Therefore, it can be concluded that liberals are not more open to try non-traditional, rather untypical tastes than conservatives.

Keywords: Political ideology, consumer behavior, preference, flavor

JEL classification: D72, D91, L66, D11, C35

Abstrato

Título: Os efeitos da ideologia política no comportamento do consumidor em relação à preferência pelo sabor

Autor: Iga Zukowski

Embora este campo seja bastante recente, foram identificadas no passado ligações entre a ideologia política e o comportamento do consumidor. Várias descobertas baseiam-se em certos factores psicológicos, que indicam que forças motivadoras e tendências inerentes influenciam a ideologia política que seguimos, bem como o comportamento dos indivíduos num contexto de consumo. Com base em estudos que revelam uma maior abertura dos liberais do que dos conservadores em relação a produtos novos ou novos, esta tese de mestrado analisa se esta observação também pode ser aplicada sobre a abertura e a vontade de experimentar sabores bastante atípicos e não clássicos. Assim, é testado se a ideologia política tem um efeito na preferência dos consumidores em relação aos sabores tradicionais e não tradicionais, que foi analisada a um nível consciente e inconsciente. A investigação conduzida mostra que só foi possível encontrar um efeito em relação a uma auto-avaliação dos participantes sobre a sua vontade de experimentar um novo sabor de um produto que já conhecem, ou seja, pode observar-se que os indivíduos de esquerda classificam a probabilidade de experimentarem o novo sabor como inferior em comparação com as pessoas moderadas/neutras. Mais duas análises, uma que também era directamente pedida e outra que estava a testar a preferência pelo sabor sem que os participantes soubessem, resultaram em resultados insignificantes. Portanto, pode-se concluir que os liberais não são mais abertos a experimentar gostos não tradicionais, bastante atípicos, do que os conservadores.

Palavras-chave: Ideologia política, comportamento do consumidor, preferência, sabor

Classificação: D72, D91, L66, D11, C35

I Outline

I Outline.....	IV
1 Introduction	1
1.1 Research problem	1
1.2 Research method	2
1.3 Course of investigation	2
2 Conceptual framework.....	3
2.1 Political ideology	3
2.1.1 Terminology	4
2.1.2 Dimensions.....	5
2.1.3 Processes behind political tendencies.....	5
2.2 Consumer Behavior	6
2.2.1 Novelty seeking.....	6
2.2.2 Variety seeking	7
2.2.3 Status quo effect.....	8
2.3 Influence of political ideology on consumer behavior.....	10
3 Methodology	12
4 Analyses & results.....	14
Table 1: Regression results (unconscious level).....	15
5 Conclusion	16
5.1 Summary	16
5.2 Critical acclaim	19
5.3 Outlook	19
II List of references	20

1 Introduction

1.1 Research problem

Political matters shape peoples' reality and coexistence, therefore the classification of political views of individuals or groups into political ideologies is often the subject of debate. This endeavor is not as trivial as it might seem beforehand since the concept of political ideology is rather complex and ordinary citizen may not fully comprehend the whole matter. In addition to that, disputes exist about some aspects, for instance about the one-dimensional measurement classifying individuals mainly in liberal and conservative categories. Furthermore, the question remains why some individuals are drawn to liberalism and others to conservatism.

Consumer behavior with respect to buying decisions is an extensively studied area in science hence it is valuable for companies. In order to target consumers effectively with suitable marketing tools, underlying psychological mechanisms that influence our decisions to some extent need to be identified. Furthermore, they affect if individuals have rather a desire for novelty and variety or if they tend to remain with the status quo. Various theories were established in order to explain why consumers prefer one or the other.

Even though it is evident that political ideology has an impact on our behavior and decisions, it is rather recent that the connection was studied in a consumer context. Certain patterns in personality traits and consumer behavior were found that are related to the respective political ideology of individuals, even differences in the size of brain regions can be detected. Some of these discrepancies include the tendency of conservative people to prefer stability, conform to group norms and authorities and have a stronger feeling towards duty with respect to a team. Liberals like change, are prosocial and more open to experience.

A quantitative study was made on the basis of prior findings, confirming that liberals are more open to try new products than conservatives. To verify if they are also more open in terms of flavors, a survey was conducted to analyze the selection made without knowledge of the participants. Moreover, other questions were created to ask directly and enable them to evaluate themselves about their preference for new and untypical flavors. Since data for political orientation is reliable and easily accessible, the results could help companies to enhance their decision-making regarding the choice of flavor they place in stores in certain areas that are rather liberal or conservative.

Hence, this master thesis analyzes if political ideology has an effect on the preference between traditional and non-traditional flavors of consumers. Therefore, a one-dimensional model of political ideology is utilized. In addition to that, novelty/variety and status quo seeking is used

as a foundation for the conducted study and connections between the political position and personality are demonstrated.

1.2 Research method

This master thesis analyzes if political ideology has an impact on taste preference of consumers with respect to classical and non-classical flavors. For the purpose of measuring which political ideologies people identify with, a one-dimensional scale is utilized with liberalism/left-wing and conservatism/right-wing at both ends and moderate/neutral as third possibility.

This research question is built on prior findings that reveal differences between conservative and liberal consumers regarding the openness to try new or novel products. Researchers proved that liberals tend to be more willing to sample commodities than conservatives. The following study tests if these findings can be extended on the flavor preference. Therefore, the hypothesis of his paper is if liberal individuals are more open to experience untypical non-classic flavors in comparison to conservatives. This hypothesis is tested on two different levels, which includes conscious and unconscious preference by asking participants directly to rate themselves and observe preference by giving flavors for selection, respectively.

Therefore, a literature review of several concepts and theories is needed to create the foundation of the conducted study. An application of various authors and publications supports the comprehension and traceability. Moreover, to falsify or validate the hypothesis a quantitative approach is used. Data is collected by means of a survey to analyze it subsequently with the help of linear regressions.

1.3 Course of investigation

Based on the derived research question in chapter 1.1, chapter 2 will cover the conceptual framework for the study starting with 2.1 which includes an explanation of the terminology political ideology in the beginning, then pass to a relevant part of the concept, namely the dimension of political ideology since discussions exist about one-dimensional and multidimensional models. Afterwards, several reasons for political tendencies will be briefly displayed including top-down and bottom-up processes and major motives.

Chapter 2.2 deals with consumer behavior and explains the concepts of novelty, variety and status quo seeking as a foundation for switching behavior. The focus is on internal mechanisms that influence our decision-making unconsciously. While novelty and variety seeking are based on the optimal stimulus level, the bias to stay with the status quo option is illustrated in view of

various aspects of the prospect theory but also other theories attempt to explain why some consumers are drawn to the status quo.

Within the chapter 2.3 a fusion of political ideology and consumer behavior takes place, in order to analyze if a relationship can be detected. Connections can be found with respect to personality traits and political ideology, some of them will be presented briefly. Furthermore, this is displayed in a consumer context with an emphasis on the influence of political ideology on the willingness to try new or novel products, while a connection to the conducted study is made.

Chapter 3 covers the methodology that is used in this master thesis in order to investigate how political ideology affects the choice of consumers with respect to traditional and non-traditional flavors. For this purpose, a quantitative study is conducted with the utilization of a survey to collect primary data

The analysis and findings are presented in chapter 4 given details about variable transformations and the undertaken linear regressions that were used to answer the research question at hand. These can be subdivided into testing flavor preference on an unconscious level through indirect questions on the one side, and a letting participants evaluate their position themselves on the other side.

Finally, a conclusion will give an overview in chapter 5 implying a summary that gives a résumé of the elaborated contents. Additionally, a critical acclaim will take place with a reflection of limitations and restrictions. The outlook will give a forecast for the next couple years.

2 Conceptual framework

2.1 Political ideology

The believe in a certain political ideology has shown great motivational force in the past and has caused ordinary citizen to go to great lengths, not because of selfish reasons but because of the desire to live a world structured by their perceptions shared with many (Jost and Amodio, 2012, p. 55). Even though people are often far from comprehending the entire complexity of the concepts of political ideologies, they do use a set of core principles as framework for every kind of consideration and asses them as ideological (Jost et al., 2009, p. 311). Some research even suggests that public opinions are rather based on individual values than on ideologies (Carmines & D'Amico, 2015, p. 206). Nevertheless, it is clear that, differences can be observed in the behavior of people with respect to their political ideology and therefore it might be likely that the manner of decision-making varies as well (Farmer et al., 2014, p. 59).

2.1.1 Terminology

The term of ideology is one a difficult concept to define in the area of social sciences (Jost et al., 2009, p. 308). It has its origin as early as the late 1700's in which the definition was held exceedingly general as science of ideas (Jost, 2006, p. 652). The vagueness of the concept of ideology assumes, there is neither one universal definition nor clear understanding of it but that it is rather of complex nature (Crockett and Wallendorf, 2004, p. 512).

Therefore, various literatures provide different illustrations of political ideology, many parallels are evident though. The work of certain authors was highly influential in the field of social science and has helped to shape our understanding of the term today (Jost, 2006, p. 651). One of them is Philip Converse (1964) who views ideology as a belief system inhibiting interaction between ideas and attitudes that are connected through a mutual dependence. Another simple and broad definition that reveals similarities but also highlights the aspect of society describes political ideology as a collection of beliefs about how the society should look like and the means to reach that idea (Erikson and Tedin, 2003, p.64). Other researchers consider it essential to mention the group nature of the terminology, e.g., Denzau and North (2000) viewed ideologies as a “shared framework of mental models that groups of individuals possess that provide both an interpretation of the environment and a prescription as to how that environment should be structured” (p. 24). Some also argue that a fixed component of political ideology is that tendencies regarding political opinions and attitudes range along a liberal-conservative spectrum (Carmines & D’Amico, 2015, p. 207). Meanwhile it is usual to use the terms “liberal” and “conservative” as synonyms for “left” and “right”, respectively (Jost et al., 2009, p. 310). For the context of this study political ideology is understood as an interactive set of values, opinions and beliefs which shape the present and disclose an insight to the desired future. In order to grasp and simplify it, this worldview can be classified somewhere on a scale from left-wing (liberal) to right-wing (conservative).

Furthermore, political ideology can be separated into two distinct concepts that reflect the reality more accurate, a symbolic and operational part (Ellis and Stimson, 2009). Symbolic ideology refers to the figurehead within the left-right scale that individuals identify themselves with and want to show others (Jost et al., 2009, p. 312). Research shows that this component is rather unstable, and that citizen are prone to conservatism here (Carmines & D’Amico, 2015, p. 212). Operational ideology, however, describes actual opinions, positions and values regarding political and societal issues an individual has (Jost et al., 2009, p. 312). Evidence suggests that the majority is rather liberal on this level (Carmines & D’Amico, 2015, p. 212).

2.1.2 Dimensions

Political ideology is commonly illustrated in a right-left spectrum that goes back a long time when these categories were used to characterize people, whereat left was used as a description of inhibiting the belief of equality in consideration of God and highness, while right stood for a representation of Christianity and implies honoring hierarchies in religion and society (Jost and Amodio, 2012, p. 56). Moreover, in the 18th century contributors of the French Assembly room chose their seats in light of the attitude they held, defenders of the status quo were sitting on the right side of the hall and their critics on the left, which indicates the deeply rooted dispute over change versus stability regarding hierarchy, authority and inequality (Jost et al., 2009, p. 310).

Researchers argue that political opinions and attitudes are more complex than the one-dimensional model suggests (Carmines & D’Amico, 2015, p. 206; Jost et al., 2009, p. 312). First of all, liberal and conservative views can differ in social and economic affairs, since individuals may favor a conservative position on social matters as maintaining social conditions like hierarchical structures but prefer a minimization of governmental intervention, which would align with liberal values (Carmines & D’Amico, 2015, p. 212). Nevertheless, political beliefs regarding social and economic dimensions are highly correlated and therefore, might be viewed as merging into a one-dimensional scale (Jung et al., 2017, p. 479).

In addition to that, the identification of two concepts within political ideology, namely operational and symbolic ideology (p. 4), challenges the single left-right scale, since evidence exists that proofs both components often follow different ideologies (Jost et al., 2009, p. 312). Therefore, it is not inevitable to acknowledge that the left-right/liberal-conservative distinction is not completely flawless (Jost, 2006, p. 654). Nevertheless, that concept demonstrated a scientific validity and theoretical usefulness repeatedly over 200 years, which is why most research involving political ideology uses this scale (Jost et al., 2009, p. 312).

2.1.3 Processes behind political tendencies

Even though it is clear that concepts of political ideology are anchored in society – even if it can be argued to what extent the dimensions should be structured – the question of why tendencies to certain political groups exist, still remains. Nevertheless, research does progressively provide some input on how and why some people are drawn to belief systems that are associated with liberal values and others tend to hold a conservative position with respect to their worldview (Jost and Amodio, 2012, p. 56). It is assumed that the reason for selecting certain political ideologies lies in a composition of top-down and bottom-up

processes, the former addresses external influences as political leadership and policies and the latter is psychologically predisposed with underlying cognitive and motivational mechanisms (Jost et al., 2009, p. 308, 315). Evidently, severe discrepancies can be observed between individuals that identify themselves with different political ideologies, which becomes apparent in mindsets including values and opinions but also in behavioral patterns (Farmer et al., 2014, p. 59).

In addition, Jost et al. (2009) identified three major motives (relational, epistemic and existential) that explain why individuals remain with certain political attitudes once they get to know them. The relational motive includes the need for social relationships, solidarity and shared worldview with others, epistemic drivers involve peoples' desires of decreasing uncertainty in life which results in a feeling of structure and being (at least partly) in control. At last individuals are driven by existential reasons like avoidance of threat, desire for self-assurance and a sense of life (p. 308). The concept of ideologies, whether they are of political or religious nature, simulates a feeling of security in general and utilizes several defense mechanisms like rationalization and denial to remain these desired feelings (Jost and Amodio, 2012, pp. 55-56). Therefore, drastic actions and behavior can arise from political ideology in order to protect the fulfillment of underlying needs (ibid.)

2.2 Consumer Behavior

Comprehension of consumer behavior concerns research since many decades now. In order to understand it, it is necessary to merge knowledge from various disciplines. Psychology, marketing and sociology are just a few of them. Many resources are invested to understand the stimulus behind buying behavior of consumers. For organizations the pattern of switching products is especially attractive. As usual in behavioral science the disclosure of that is not simple but a rather complicated matter since switching behavior is not just driven by one variable but by a few, including marketing, the situational context, access to the product and need for variety (McAlister, 1982, p. 141). This chapter focuses on the latter aspect as well as on the other option individuals have, staying with the status quo.

2.2.1 Novelty seeking

In the area of consumer behavior, the concept of novelty seeking is an important factor that needs to be considered (Hirschman, 1980, p. 283). It can be defined as magnitude of difference among a customer's perception in the present and their experience in the past (Assaker et al., 2011, p. 891). The basic idea relies on an intrinsic need or motivation that leads individuals to

trace novel input (Hirschman, 1980, p. 284). González-Cutre et al. (2016) describe it as “the need to experience something not previously experienced or deviates from everyday routine, as an additional basic need” (p. 159). In addition to that, novelty seeking can be separated into two correlating aspects including the pursue of novel information that eventually differ from the current state of knowledge, on the one side, and willingness to select a range of choices between known options on the other side, also known as variety seeking, which functions as a means to decrease boredom (Hirschman, 1980, p. 284). Focusing on the former concept novelty seeking can be “inherent”, which would describe the will to acquire novel stimuli, or it is “actualized” which is illustrating the factual action that is performed to obtain the novel stimuli (ibid.). The desire of individuals for novelty is a deeply rooted psychological need and serves as instrument to increase well-being and motivation (González-Cutre et al., 2016, pp. 160-161). Novelty seeking can be found already in young ages when children pursue new information and experience, research shows that if a baby has two choices it will usually select the unknown option (Hirschman, 1980, p. 284). It can be further observed in the behavior of adolescents that search for novelty exists in order to develop their personality and image in society, but also adults seek it for mental development, enhancement of relationships and cognitive abilities (González-Cutre et al., 2016, pp. 160-161). Therefore, it can be concluded that novelty seeking is not only observed in all stages of life, but also occurring across borders being observed in all kinds of cultures (ibid.). Peoples’ willingness to obtain novel information is a type of self-preservation, knowledge in all its various forms is collected even though it might not be useful in the present but possibly in the future which is yet unknown and uncontrollable (Hirschman, 1980, p. 284). Moreover, it is an attempt to enhance our personal skill set and ability for problem-solving (ibid.)

2.2.2 Variety seeking

The concept of the variety seeking tendency can be defined briefly as a characteristic that drives individuals to reach stimulation through a variety in choice (Van Trijp and Steenkamp, 1992, p. 186). As already mentioned above, novelty and variety seeking are highly correlated, nevertheless they are not the same which is why an attempt to distinct them follows. They have a common conceptual ground due to the fact that consumers adjust their behavior with the aim to reach an optimal degree of stimulation (Assaker et al., 2011, p. 891). The term of variety seeking is usually used in different ways covering various meanings, reasons and motives behind consumer choices like buying another brand because the usual is out-of-stock or because there is a discount on the price. It is important to narrow down the concept though, variety

seeking in this context is mainly focusing on the motive of an internal drive because of the need for variety itself by an individual being an inherent personality trait (Van Trijp and Steenkamp, 1992, p. 182). This is essential due to decision making in the field of marketing since strategies can fail if they are based on wrong assumptions and drivers, therefore approaches need to be tailor-made to effectively influence customer choices (ibid.). The unconscious aim behind reaching for variety is to achieve a stimulus level that is perceived as optimal, which differs among individuals and is based on a combination of internal and external factors, diverse contexts and time components (Menon and Kahn, 1995, p. 286). Furthermore, it means that customers would switch to another product even though they have no obvious reason for it such as issues with functional features or dissatisfaction with the commodity itself (Assaker et al., 2011, p. 891). This desire for variety can be further subdivided and summarized into three concrete motivations, first of all the need for novelty that was already mentioned and concerns the pursuit of novelty stimuli, then the need for uniqueness since people want individual identities and the aim of avoiding boredom that is activated because the marginal value of one more entity of a product in use is sinking (Van Trijp and Steenkamp, 1992, p. 184). In this context a consumer would choose either a new product, variety of the product or brand in order to create an experience of something new and reach satisfaction as a result (Hoyer and Ridgway, 1984). The aim for stimulus regulation is to achieve an optimal level, which differs between consumers since every individual has its own ideal degree that moves in the intermediate range because a stimulation that is too high or low has rather unpleasant effects (Van Trijp and Steenkamp, 1992, p. 184). Therefore, some consumers have a high desire for stimulation and others a low need for it which means in conclusion that different variety need among consumers can be observed (Menon and Kahn, 1995, p. 294). Even though the stimulus level is a major factor, variety seeking is influenced by many other variables that determine at what time, which products and in what manner this takes place (Hoyer and Ridgway, 1984). The external context only has a limited hold on the amount of desire for variety, individual disparities have a stronger influence and are observed more often (Menon and Kahn, 1995, p. 294). Several personality traits were found that are connected to variety seeking, namely dogmatism, extroversion, authoritarianism and creativity (Hoyer and Ridgway, 1984).

2.2.3 Status quo effect

Consumers are usually faced with two options of choice, either changing the current option or staying with it. In case of the latter the irrational decision must be distinguished from the rational one which would refer to keeping the current choice for instance because limited

information is provided, or because it is simply better for the consumer. On this occasion, the following chapter focuses on the underlying psychological factors to stay with the status quo. Mental processes and decisions are complex, therefore the reasons for either switching the product, brand or taste in contrast to staying with the current option are influenced by various factors. Traditional consumer theories assume that individuals make choices by comparing the commodity in question with all other possible products and make a rational decision with the aim of utility maximization (Hartman et al., 1991, p. 141). As more recent studies figured out this is not the case in practical terms, one of these distorting effects is the status quo effect which describes the preference of staying with the current option instead of deciding for a change because of non-rational reasons (Loomes et al., 2009, p. 114).

Some of the underlying psychological mechanisms that take place are included in the prospect theory (Kahneman and Tversky, 1979) which explains certain drivers of consumers into being drawn to stay with their status quo option. The prospect theory reveals that this effect needs to be taken into account in order to not falsify the results of their created paradigm that measures the expected utility maximization (Hartman et al., 1991, pp. 141-142). This includes a certainty effect which showed that consumers are exaggerating the value of an outcome that is already known, relative to one that is just probable and a reflection effect which mainly states that marginal gains and losses are valued in a different way (ibid.). In a nutshell Kahneman and Tversky (1979) state in their prospect theory that individual risk behavior varies depending on the estimated certainty of an event occurring. In case of positive events individuals prefer secure gains to higher uncertain gains, which indicates aversion towards risk with respect to gains, whereas in negative events people prefer uncertain losses to a sure loss, which illustrates risk-taking tendencies regarding losses. A part of the prospect theory is loss aversion which summarizes a bias with respect to the overstatement of losses in contrast to the same level of gains, which results in a steeper value function for losses than for gains (Kahneman and Tversky, 1984). The reference point is not the expected utility but the status quo, which is why consumers evaluate the potential loss that could occur by switching to another product much higher than the potential benefit it could bring, which leads to an accompanying bias that exaggerates the value of the status quo option and decreases the probability of switching (Chernev, 2004, p. 557). Moreover, Samuelson and Zeckhauser (1988) created the term of a Status Quo Bias that describes consumers as preferring the current state and viewing it in a positive way with respect to a buying and selling context (Hartman et al., 1991). On the foundation of that the endowment effect was discovered, which was studied by many

researchers and revealed that people overvalue what they own, since asymmetries could be identified regarding individuals' willingness to pay for an object from another entity and their willingness to accept the price of the same good in case that it belongs to them (Kahneman et al., 1991, pp.194-197). The concept of loss aversion as well as the endowment effect were challenged by Gal and Rucker (2018) who argue that the motive of favoring the currently selected object is attributable to psychological inertia, which means that the bias occurs because inaction is preferred over action since the latter needs a certain incentive to be released, if not provided it is more comfortable for consumers to stay with the status quo. These are just a few of the psychological factors that guide our decision-making on an unconscious level. Furthermore, situational contexts can also influence status quo effects, for instance research could identify a positive correlation among the magnitude of the status quo bias and the amount of taste uncertainty (Loomes et al., 2009, p. 114).

2.3 Influence of political ideology on consumer behavior

It is not a new insight that people with different political background distinguish in various areas like their patterns, values and views. Also, the fact that political ideology can be a strong motivational driver for positive and negative action which can even end up in sacrifice of life in extreme cases was proven in the past repeatedly (Jost and Amodio, 2012, p. 55). Therefore, it can be assumed that political ideology might have an impact on other behavioral patterns like decisions in a consumption context. Nevertheless, the research of how political ideology influences consumer behavior is rather recently studied around marketing, political science and adjacent research areas (Kaikati et al., 2014, p. 62).

However, over time several diverse personality traits and behaviors could be detected for liberal and conservative individuals, which include some more and some less obvious findings. First of all, conservatives tend to be convinced by competitiveness while liberals are rather prosocial oriented (Van Lange et al., 2012). Since the support of others often indicates a utilization of resources that could be used otherwise and might miss somewhere else, this effect might be connected to evidence from neuroscience. Doctors found differences in volume of brain regions that are responsible for threat and response conflict which results in findings that conservatives are more sensitive to threat and liberals are less sensitive to it (Jost and Amodio, 2012, p. 55). Other studies also align with this overall perception of both ideologies, Jung et al. (2017) proved that conservatives tend to yield more often to authorities and rather accept compulsive control mechanisms to keep the system intact than liberal people (p. 480). Moreover, conformity to opinions and norms of groups by conservatives is distinct in relation to liberal individuals

(Cavazza and Mucchi-Faina, 2008), consistent with that, the desire for their approval is advanced (Torelli, 2006) as well as the likelihood of feeling a duty towards the group and behave more loyal to reach a certain impression among members (Graham et al., 2009; Kaikati et al., 2014, p. 62). Nevertheless, individuals hold several group identities which are dependent on the context, so when there is a problem at hand the common identity of the group that is present might be more in focus instead of the issue who belongs to which political group (Kaikati et al., 2014, p. 62).

Furthermore, researchers provide evidence that people representing more right-wing positions tend to preserve and follow traditions stronger and are advocates of conventionalism in cultural and religious terms in comparison to supporters of liberal views (Jung et al., 2017, p. 480). Conservatives have a penchant for politeness which correlates to some extent with agreeableness (Hirsch et al. 2010) and an appreciation for responsibility and structure in contrast to left-wing individuals who value individuality and free expression (Jung et al., 2017, p. 480). In general, right-wing positioned individuals are more ambitious to keep certain feelings on a minimum like equivocation, insecurity, threat and disrelish, where liberals did not have such a developed need for decrease (Jost and Amodio, 2012, p. 55). Farmer et al. (2014) could not falsify that right-wing and left-wing people systematically differ in the way they make choices and decisions. This fundamental difference in choice suggests that discrepancies could appear regarding consumer choices in a purchasing context as well.

Researchers did find several connections between political ideology and consumer behavior. One of them is Khan et al. (2013) who proved that if conservative people stand in front of a choice, they are more likely to reach for national brands. At the same time, they concentrate stronger on more specific and precise features in products which is due to the tendencies of conservatives towards dogmatic thinking and liberals on the other side prefer desirable options because they favor abstract characteristics (Shook and Fazio, 2009; Farmer et al., 2014, p. 59). This can be concluded into a difference in choice regarding hedonic and utilitarian options, where conservative individuals desire products that are rather objective and justifiable, so they prefer utilitarian objects, and the liberals select hedonic commodities due to their openness towards experience (ibid.).

For this study consumer behavior around new or novel products in connection with political ideology is of particular interest since it forms the foundation of the conducted study. Jost et al. (2003) were able to identify that conservatives tend to accept, defend and legitimate the present system more than liberals which results in conservative consumers being more drawn to status

quo options in their buying behavior (Farmer et al., 2014, p. 59). In addition to that conservative people tend to create excuses and legitimate mistakes made by the present social system and institutions (Jung et al., 2017, p. 480). At the same time liberals are rather fond of novel options (Carney et al., 2008) due to their open mindedness and inner desire for experience liberal consumers like to get to know new surroundings (Farmer et al., 2014, p. 60). Conservatives prefer to stay with their current options instead of switching, since they have a need for reducing uncertainty and feel comfortable with stability and familiarity (Jost et al., 2003). This can also be observed in the reaction of consumers towards advertisement, while right-wing oriented individuals prefer ads that involve words creating a feeling of stability like “maintain” and “keep”, the left-wing oriented people prefer when words associated with change are included such as “change” as phrase itself and “move” (Duhachek et al., 2014, p. 61). Khan et al. (2013) found out that negative correlations exist among conservatism and concern for new products especially when they are novel (Jung et al., 2017, p. 480).

The collection of these prior findings suggests that there could be more differences in consumer behavior in connection with their position regarding political ideology. The incentive for the conducted study is especially based on the studies concerning the disparity between conservatives and liberals with respect to their mindset towards new products. It is assumed that liberal individuals are more open to try new products in contrast to conservatives. As extension of these studies this thesis tests if these theories can be applied respectively to their preference in flavor and if liberals are also more open towards tastes that are new or rather untypical.

3 Methodology

In order to investigate how political ideology affects the choice of consumers with respect to traditional and non-traditional flavors a quantitative study is conducted. Aiming to generate generalizable insights about consumer behavior, a survey appears as the most suitable tool to collect primary data. Respondents were asked to choose the flavor they would buy regarding four different products, namely jam, cream cheese, chips and soft drinks. The participants had seven choices including the standard taste for the respective product category and other non-standard flavors (e.g., for jam the classic option was strawberry, alternatives included mango, raspberry-cheesecake etc.). At the same time there was no mentioning of the classification of the tastes. By this means it was tested if consumers would select a traditional or non-traditional taste, so to say on an “unconscious” level. Furthermore, participants were asked by means of direct questions about their taste preference by figuring out if a new (non-traditional) flavor

would be tried if launched by a brand of a product that is liked. In addition to that, individuals answer if it is valued when a product has more variations than the classic flavors. Both can be rated by the participants on a scale from one to five (1 = definitely not, 5 = definitely yes). These passages are included to generate how customers evaluate their own position towards non-classic tastes and ascertain if differences can be seen among unconscious and conscious level. The selection of questions is inspired by Hirschman's (1980) scale on testing inherent novelty seeking (p. 292). Finally, participants are asked about their political ideology with choices ranging from extremely left-wing to extremely right-wing since empirical feasibility could be proven as stated above. In accordance with the seven-point Likert-scale that is used by the American National Elections Study (ANES) respondents are asked to evaluate themselves and place between one and seven.

The survey is virtually conducted and consists of seven multiple choice and three Likert scale questions including two five-point scales and one seven-point scale. Moreover, the poll was performed in English in November 2022 and participation was anonymous. After the data was prepared the response rate accounts for 107 valid entities including 46 female and 61 male participants. In addition to that the sample is random and consists of adults 18 or older, mainly 25-34 years old which are from several countries, mainly Germany (52%), Mexico (18.5%) and Portugal (8%). The participants were not enlightened about the exact purpose of the of the survey in order to avoid bias of the answers. The dataset was searched for missing values and other anomalies. By means of dummy variables, the answers were transformed to represent if traditional or non-traditional flavors were chosen. The software SPSS was used to conduct a linear regression.

Some constraints appear in the used methodology. First, participants are asked which political ideology they have which can have a distortive effect because of the difference between symbolic and operational ideology which might differ (p. 4). Furthermore, not every individual knows what ideology he/she belongs to since some people don't comprehend the full concept of the different political ideologies, exact values and mindsets that are included and might call themselves liberal even though when asked actual beliefs and positions in various topics they would rather fit into the definition of a conservative (Jost et al., 2009, p. 311). In addition to that, in the present time right-wing ideology is negatively afflicted which could have biased the answer on that question as well in a manner of selecting with a stronger tendency to the left options. Moreover, the formulation of "extremely" left- or right- wing as the beginning and

end of the scale in the survey could have a deterrent effect and distort some of the answers by selecting more socially acceptable options.

4 Analyses & results

To test if political ideology has an influence on taste preference regarding traditional and non-traditional flavors multiple linear regressions were conducted. In more detail a hypothesis was formed based on the theoretical findings within chapter 2 in order to be validated or falsified. This hypothesis is tested on a conscious as well as unconscious level with respect to the consumer by testing her/his preference on the one side and asking on a direct basis if more options are preferred and if there would be willingness to try them on the other side. The hypothesis states that political ideology influences taste preference, namely that liberals are more likely than conservatives to choose non-traditional flavors.

In order to test that hypothesis, questions were included in the survey accordingly. On the one hand the questionnaire contains four sequences that indirectly questioned the preference of classic against non-classic flavors. Participants were mobilized to select their favorite flavor from four product categories. These sections were utilized to create one variable out of the four answers that were given. The first step was transforming the responses into two categories that can be split into classical and non-classical choice (1 = classic and 0 = non-classic flavor). Afterwards a correlation analysis using the Phi coefficient between the variables was necessary to validate the possibility of summing up the responses. Significant correlations on a significance level of 5% could be found among jam and soft drink ($p < 0.019$), cream cheese and chips ($p < 0.036$), as well as chips and soft drinks ($p < 0.007$), which aligns with the minimum requirements. Hence, one variable was created summing up the choices of each respondent. This variable (Sum_Var_Flav) represents the total of all selections to function as the dependent variable in the regression analysis.

Moreover, the independent variable is derived from political ideology which was transformed from a Likert seven-scale into three categories that represented right-wing, moderates/neutrals and left-wing participants. To enable the linear regression analysis these categories were transformed into dummy variables. Furthermore, one of them was left out in order to function as the reference category in the interpretation.

A multiple linear regression was utilized with Sum_Var_Flav as the dependent variable and two of the dummies derived from political ideology to test if one of these groups significantly predicts taste preference. The result of it is that the model does not have explanatory value since it is statistically non-significant ($R^2 = - 0.10$, $F(2,104) = 0.457$, $p = 0.635$), therefore the

coefficients cannot be interpreted neither. Hence, the null hypothesis is assumed, which means that political ideology does not have a significant influence on taste preference regarding classical against non-classical flavors on an unconscious level. Also, after transforming the demographic control variables like age and gender they were added to the model. Nevertheless, it stays insignificant, and this results in rejecting the created hypothesis. The following table summarizes the outcomes of the analyses with and without the independent control variables. Every regression includes the political dummy variables with respect to left, moderate/neutral and right (one of them serves as reference category at all times).

Table 1: Regression results (unconscious level)

	Independent variables included in the regressions			
	Without control variables	Age & Gender	Age	Gender
Significance of F-Test	0.635	0.869	0.746	0.810
Corrected R²	- 0.010	- 0.027	- 0.017	- 0.020

Note: The dependent variable is Sum_Var_Flav, which adds the choices of flavor preference in four product categories and every regression contains political dummy variables.

On the other hand, direct questions were posed in order to investigate whether differences can be found if participants need to assess themselves regarding this topic. Firstly, they were asked about their willingness to try a new (non-traditional) flavor if launched by a brand of a product that is liked (Q5) and secondly if it is valued when a product has more variations than the classic flavors (Q6). Since both questions were retrieved with a five-point Likert scale, they could be easily transferred in ordinal variables reaching from one to five. Here, a higher number would indicate the tendency to a yes.

The participant is asked directly so they can share their opinions to see if the outcome differs in comparison to the unconscious analysis. Therefore, other factors influencing their choice like favoritism for certain fruits for example can be minimized. Nevertheless, at the same time consumers might not be aware of their true preference and their self-assessment could differ to their actual buying behavior, which is why the survey aims to test the hypothesis on both levels so bugs can be decreased.

To test this, two more linear regressions were conducted. One using the likelihood of Q5 as dependent variable and the other model utilizing the scores of Q6. Political ideology with its three categories of left, moderate/neutral and right remains as independent variable in the dummy form as used in the prior regression.

The analysis with the Q5 variable revealed that political ideology influences the willingness to try a new non-traditional flavor of a liked product, since the model is statistically significant ($R^2 = 0.38$, $F(2,104) = 3.113$, $p = 0.049$) a relationship could be identified between these factors. Even though the model is significant, the values of the t-test are only within the significance level for the coefficients of the left-wing group in contrast to the moderate/neutral, the regression coefficient is -0.446 ($t = -2.460$, $p = 0.016$). That means that a person with a left-wing ideology in contrast to a moderate/neutral individual will try the new flavor on average c.p. 0.446 points less on a scale from 1 to 5. Moreover, it was found that neither the right-wing group ($\beta = -0.283$, $t = -1.363$, $p = 0.176$) with the moderate/neutral variable as a reference category nor the left-wing predictor ($\beta = -0.162$, $t = -0.757$, $p = 0.451$) with right-wing ideology as reference category could significantly predict the willingness to try a new flavor from a favored product. Finally, certain conditions for a valid regression that were feasible for the present level of measurement were tested including the normal distribution. The Shapiro-Wilk test had a significance of 0.005 which is under the significance level and therefore means that there is no normal distribution.

The result of the regression with Q6 as dependent variable is that it does not have explanatory value since it is statistically non-significant ($R^2 = -0.18$, $F(2,104) = 0.042$, $p = 0.959$), thus the further interpretation of coefficients is not possible and therefore not further relevant. The null hypothesis is assumed, which states that political ideology does not have a significant influence on taste preference regarding classical against non-classical flavors on a conscious level. An addition of controls did not change the outcome significantly.

In conclusion, it can be stated that three regression models were conducted in order to find out if political ideology has an effect on the taste preferences of consumers. The main regression focused on testing the hypothesis without participants knowing it and the results were insignificant. Two more regressions that had an underlying self-assessment revealed one significant and another non-significant model. Since the only analysis with explanatory value states that liberals are less likely than moderate/neutral individuals to try a new flavor of a product they like the created hypothesis can be rejected. Therefore, it cannot be proven in this work that liberals are more likely than conservatives to choose non-traditional flavors.

5 Conclusion

5.1 Summary

Several major events have been triggered by political ideology, negative as well as positive occurrences. It is a strong motivational driver to put effort into something individuals believe

in and want to pursuit. Nevertheless, it is not trivial to grasp the whole concept of political ideology. The term was coined by various authors that had many parallels but at the same time put emphasis on different components like the group nature of political ideology or the position along a liberal-conservative scale. In conclusion political ideology is defined as set of beliefs, values and opinions shaping the worldview and illustrating how individuals see the desired future. This can be classified on a left-wing (liberal) to right-wing (conservative) spectrum. Moreover, the terminology can be subdivided into symbolic political ideology which describes how people identify themselves and how they want to be seen by others and operational political ideology, in contrast, refers to the actual opinions, positions and values a person holds. Individuals tend to be conservative in the symbolic ideology and liberal with respect to the operational political ideology. In addition to that, it is disputable if the one-dimensional measurement of left and right is sufficient since political positions of people are more complex than this. Nevertheless, empirical validity could be proven over time in many research projects. A combination of top-down and bottom-up processes attempt to explain the reasons behind the tendency of individuals with respect to political ideology, which imply external reasons but also internal psychological aspects that are predispositioned, like deeply rooted personality traits. In addition to that, three major motives covering relational, epistemic and existential drivers illustrate why people stick to their ideology once they get in touch with it.

An important aspect of consumer behavior is the buying pattern that can be observed. Regarding product choice customers have two options either stay with their current commodity or switch to another brand, product or variety. Besides of rational reasons there are also unconscious drivers that influence our decision-making, understanding them can help to target consumers effectively. This includes novelty and variety seeking which are based on individuals' need for an optimal level of stimulation. That can be reached by experiencing the right amount of something novel or different, respectively. That need is inherent and differs for every person since the optimal level is different for everyone. The factors that strengthen the tendency to stay with a product can be explained with the status quo effect. One of the theories includes the prospect theory that implies loss aversion stating that people overvalue losses in comparison to the same level of gains. That is why consumers rate the potential loss by switching to another commodity higher than the potential gain of it. Another factor is the endowment effect that results in an overvalue of objects that are in our possession in contrast to the price we would pay for obtaining it from an external source.

Since political ideology is not only a strong motivational force but also influenced by inherent psychological parameters it is of interest what impact it has on consumer behavior. Research reveals that differences can be observed between liberals and conservatives in personality traits as well as buying behavior. Among other characteristics, it was proven that conservative individuals are more sensitive to threat as well as response conflict, they yield more often to authorities and rather accept control mechanisms in comparison to liberal individuals. Moreover, group dynamics play a big role in the life of right-wing people, not only do they conform more with their opinions and norms, they also seek their approval and feel duty and loyalty stronger towards the group than left-wing individuals. ... In general, both ideologies systematically differ in the way they make choices and decisions. In a consumer context, findings reveal that conservatives tend to stay with their chosen products because they try to avoid uncertainty and favor familiar and stable surroundings. Liberals are more willing to try new or novel commodities due to their openness to experience and preference for change. These tendencies can also be observed in their response to advertisement.

Since some differences in the behavior of consumers with respect to their political ideology was identified, it is assumed that more could be detected. With a focus on the findings regarding liberals increased willingness to try new products, it is tested if the research can be extended, and the mentioned tendencies can be observed on another level as well. Hence, the question arises if political ideology affects the choice of consumers with respect to traditional and non-traditional flavors. Based on the literature review one could assume that liberals are also more open to try new or rather untypical tastes in comparison to conservatives that could prefer to stay with the more known flavors, namely the classical ones. By the means of a survey primary data was collected for a quantitative approach. In order to investigate if a relationship between these factors exists, regression analyses were utilized. The hypothesis was tested on two levels, including an unconscious one where participants were asked to choose between flavors of different products, without knowing what these questions are about and also on a conscious level by asking them about their willingness to try new flavors of a product they liked and if it is valued that more variations exist than just the classic tastes. The regression analyses revealed no significant results, with the exception of the influence of political ideology on the willingness to try a new flavor of a known product. The only significant result of this model indicates that left-wing individuals in contrast to a moderate/neutral person will try the new flavor on average c.p. 0.446 points less on a scale from 1 to 5, which means that liberals think they are less likely to try the new flavor.

Hence, it can be concluded that political ideology rather does not have a significant effect on the preference between traditional and non-traditional flavors. An exception of that is the self-evaluation about the willingness to try a new flavor of a product that is known and liked. Here it could be proven that liberals in comparison to moderate/neutral individuals have a lower chance to try it. Therefore, the hypothesis that liberals are more open to try new or novel flavors than conservatives is rejected.

5.2 Critical acclaim

It is questionable if the results of this research can be applied to all countries since some matters might deviate like the tastes or the political assembly. Flavors that are considered classical in one country might not be viewed as traditional taste in another one and can't be interpreted that way. In addition to that, most literature regarding political ideology is from the United States, where also a two-party system prevails. This differs in Europe, which is reflected in the lineup of parties and therefore the results could have been distorted by that. Moreover, it cannot be reliably stated that favored tastes did not bias the choices in the survey and acted as a strong driver, for instance preference for certain fruits or spices that were listed as a choice, even though it was tried to minimize that effect by asking respondents about several product categories.

5.3 Outlook

So far, the connection between political ideology and consumer behavior is a rather less researched area and there are still many aspects that are unexplored and only limited knowledge is available. On the one hand, this is due to neuroscience and psychology being an integral part of these fields, which means that deep and all-encompassing research takes a long time and may never be completely achievable, since the complexity of the human brain and mental processes is very extensive. Retrospectively it can be said that many findings were revealed in the last few years, developing access to knowledge in this area, which was not necessarily expected, therefore it is impossible to predict how far science is going to be in the next decades also regarding the other processes that take place. Nevertheless, it can be stated with certainty that research activities of diverse laboratories are going to reveal new findings that will shed some light on the processes in the future, since psychology is a rather new field in science and researchers understand the brain only to a small extent so far. On the other hand, it is crucial that researchers from the diverse scientific fields that merge into this topic work closer together and cooperate to increase our understanding.

II List of references

- Assaker, G., Vinzi, V. E., & O'Connor, P. (2011). Examining the effect of novelty seeking, satisfaction, and destination image on tourists' return pattern: A two factor, non-linear latent growth model. *Tourism management*, 32(4), 890-901.
- Carmines, E. G., & D'Amico, N. J. (2015). The new look in political ideology research. *Annual Review of Political Science*, 18, 205-216.
- Carney, D. R., Jost, J. T., Gosling, S. D., & Potter, J. (2008). The secret lives of liberals and conservatives: Personality profiles, interaction styles, and the things they leave behind. *Political psychology*, 29(6), 807-840.
- Cavazza, N., & Mucchi-Faina, A. (2008). Me, us, or them: Who is more conformist? Perception of conformity and political orientation. *The Journal of social psychology*, 148(3), 335-346.
- Chernev, A. (2004). Goal orientation and consumer preference for the status quo. *Journal of Consumer Research*, 31(3), 557-565.
- Converse, P. E. (1964). The nature of belief systems in mass publics. In D. E. Apter (Ed.), *Ideology and discontent* (pp. 206–261). New York: Free Press.
- Crockett, D., & Wallendorf, M. (2004). The Role of Normative Political Ideology in Consumer Behavior. *Journal of Consumer Research*, 31(3), 511–528. doi:10.1086/425086
- Denzau, A. T., & North, D. C. (2000). Shared mental models: ideologies and institutions. *Elements of reason: Cognition, choice, and the bounds of rationality*, 23-46.
- Duhachek, A., Tormala, Z. L., & Han, D. (2014). Stability vs. change: The effect of political ideology on product preference. *ACR North American Advances*.
- Ellis C, Stimson JA. 2009. Symbolic ideology in the American electorate. *Elect. Stud.* 28:388–402
- Erikson, R.S., & Tedin, K.L. (2003). *American Public Opinion*. New York: Longman. 6th ed.
- Farmer, A., Kidwell, B., & Hardesty, D. (2014). Political ideology and consumer decision making. *ACR North American Advances*.
- Gal, D., & Rucker, D. D. (2018). The loss of loss aversion: Will it loom larger than its gain?. *Journal of Consumer Psychology*, 28(3), 497-516.
- González-Cutre, D., Sicilia, Á., Sierra, A. C., Ferriz, R., & Hagger, M. S. (2016). Understanding the need for novelty from the perspective of self-determination theory. *Personality and individual differences*, 102, 159-169.
- Graham, J., Haidt, J., & Nosek, B. A. (2009). Liberals and conservatives rely on different sets of moral foundations. *Journal of personality and social psychology*, 96(5), 1029.
- Hartman, R. S., Doane, M. J., & Woo, C. K. (1991). Consumer rationality and the status quo. *The Quarterly Journal of Economics*, 106(1), 141-162.
- Hirschman, E. C. (1980). Innovativeness, novelty seeking, and consumer creativity. *Journal of consumer research*, 7(3), 283-295.
- Hirsh, J. B., DeYoung, C. G., Xu, X., & Peterson, J. B. (2010). Compassionate liberals and polite conservatives: Associations of agreeableness with political ideology and moral values. *Personality and Social Psychology Bulletin*, 36(5), 655-664.
- Hoyer, W. D., & Ridgway, N. M. (1984). Variety seeking as an explanation for exploratory purchase behavior: A theoretical model. *ACR North American Advances*.
- Jost, J. T. (2006). The end of the end of ideology. *American psychologist*, 61(7), 651-670.

- Jost, J. T., & Amodio, D. M. (2012). Political ideology as motivated social cognition: Behavioral and neuroscientific evidence. *Motivation and Emotion*, 36(1), 55-64.
- Jost, J. T., Federico, C. M., & Napier, J. L. (2009). Political ideology: Its structure, functions, and elective affinities. *Annual review of psychology*, 60(1), 307-337.
- Jost, J. T., Glaser, J., Sulloway, F. J., & Kruglanski, A. W. (2018). Political conservatism as motivated social cognition (pp. 129-204). Routledge.
- Jung, K., Garbarino, E., Briley, D. A., & Wynhausen, J. (2017). Blue and red voices: Effects of political ideology on consumers' complaining and disputing behavior. *Journal of consumer research*, 44(3), 477-499.
- Kahneman, D., & Tversky, A. (1979). Prospect theory: an analysis of decision under risk. *Econometrica*, 47, 263–291.
- Kahneman, D., & Tversky, A. (1984). Choices, values, and frames. *American psychologist*, 39(4), 341.
- Kahneman, D., Knetsch, J. L., & Thaler, R. H. (1991). Anomalies: The endowment effect, loss aversion, and status quo bias. *Journal of Economic perspectives*, 5(1), 193-206.
- Kaikati, A. M., Torelli, C. J., & Winterich, K. P. (2014). Conforming Conservatives: How Norms of Salient Social Identities Overcome 'Heartless Conservative' Tendencies. *ACR North American Advances*.
- Khan, R., Misra, K., & Singh, V. (2013). Ideology and brand consumption. *Psychological science*, 24(3), 326-333.
- Loomes, G., Orr, S., & Sugden, R. (2009). Taste uncertainty and status quo effects in consumer choice. *Journal of Risk and Uncertainty*, 39(2), 113-135.
- McAlister, L. (1982). A dynamic attribute satiation model of variety-seeking behavior. *Journal of consumer research*, 9(2), 141-150.
- Menon, S., & Kahn, B. E. (1995). The impact of context on variety seeking in product choices. *Journal of Consumer Research*, 22(3), 285-295.
- Samuelson, W., & Zeckhauser, R. (1988). Status quo bias in decision making. *Journal of risk and uncertainty*, 1(1), 7-59.
- Shook, N. J., & Fazio, R. H. (2009). Political ideology, exploration of novel stimuli, and attitude formation. *Journal of Experimental Social Psychology*, 45(4), 995-998.
- Torelli, C. J. (2006). Individuality or conformity? The effect of independent and interdependent self-concepts on public judgments. *Journal of Consumer Psychology*, 16(3), 240-248.
- Van Lange, P. A., Bekkers, R., Chirumbolo, A., & Leone, L. (2012). Are conservatives less likely to be prosocial than liberals? From games to ideology, political preferences and voting. *European Journal of Personality*, 26(5), 461-473.
- Van Trijp, H. C., & Steenkamp, J. B. E. (1992). Consumers' variety seeking tendency with respect to foods: measurement and managerial implications. *European Review of Agricultural Economics*, 19(2), 181-195.