

THE SMELL OF BREAD: ITS EFFECTS ON PSYCHOLOGY, EMOTIONS AND MEMORIES

O CHEIRO DO PÃO: SEUS EFEITOS NA PSICOLOGIA, EMOÇÕES E MEMÓRIAS

Article received on: 7/7/2025

Article accepted on: 9/5/2025

Vildan Tüysüz*

*Sakarya University of Applied Sciences, Sakarya, Türkiye
Orcid: <https://orcid.org/0000-0002-4674-5628>
vildantuysuz@outlook.com

Osman Çapan**

**Atatürk University, Erzurum, Türkiye
Orcid: <https://orcid.org/0000-0003-3996-1944>
osman.capan@atauni.edu.tr

Füsun Esenkal***

***Bandırma Onyedi Eylül University, Balıkesir, Türkiye
Orcid: <https://orcid.org/0000-0002-9402-1640>
fcozeli@bandirma.edu.tr

Serkan Semint****

****Karamanoğlu Mehmetbey University, Karaman, Türkiye
Orcid: <https://orcid.org/0000-0002-6305-1898>
serkansemint@kmu.edu.tr

Abstract

The primary objective of this qualitative study is to examine the emotional, psychological, and social effects of bread odor on individuals. The effects of bread odor on emotional reactions and emotional perceptions carry profound meanings not only in personal experiences but also in cultural contexts. This makes the examination of bread odor important for both gastronomy and cultural studies. A semi-structured interview technique was used as the data collection tool in the study. The research population consisted of individuals of different ages, genders, and socio-cultural backgrounds residing in Sakarya, while the sample consisted of 21 participants selected through snowball sampling. A total of 15 questions were asked to the participants, organized around three themes: emotional effects, memory, and psychological and social effects. The findings indicate that the smell of bread frequently evokes feelings of family warmth, longing for the past, compassion, and trust, and bread is defined as a sacred and special food. The smell is associated with memories such as mothers and grandmothers, village life, student housing, and family tables. From a psychological perspective, the scent of bread has been found to relax individuals, provide emotional peace and security, and strengthen

Resumo

O objetivo principal deste estudo qualitativo é examinar os efeitos emocionais, psicológicos e sociais do odor do pão nos indivíduos. Os efeitos do odor do pão nas reações e percepções emocionais carregam significados profundos não apenas em experiências pessoais, mas também em contextos culturais. Isso torna a análise do odor do pão importante tanto para a gastronomia quanto para os estudos culturais. Uma técnica de entrevista semiestruturada foi utilizada como instrumento de coleta de dados no estudo. A população da pesquisa foi composta por indivíduos de diferentes idades, gêneros e origens socioculturais residentes em Sakarya, enquanto a amostra foi composta por 21 participantes selecionados por amostragem em bola de neve. Um total de 15 perguntas foram feitas aos participantes, organizadas em torno de três temas: efeitos emocionais, memória e efeitos psicológicos e sociais. Os resultados indicam que o cheiro do pão frequentemente evoca sentimentos de aconchego familiar, saudade do passado, compaixão e confiança, e o pão é definido como um alimento sagrado e especial. O cheiro está associado a memórias como mães e avós, vida na aldeia, moradias estudantis e mesas familiares. Do ponto de vista psicológico, descobriu-se que o aroma do pão relaxa os indivíduos, proporciona paz e segurança



social bonds. This demonstrates that scent is a significant trigger for individual memory.

Keywords: Bread Smell. Nostalgia. OIM Memory.

emocional e fortalece os laços sociais. Isso demonstra que o aroma é um gatilho significativo para a memória individual.

Palavras-chave: Cheiro de Pão. Nostalgia. Memória OIM.

1 INTRODUCTION

Humans are defined as a combination of biological, psychological, and social structures. Therefore, human behavior and perception processes are influenced by environmental, biological, and social factors. These factors have a significant impact on individuals' food consumption (Bakır et al., 2022). Perception of food refers to the process of receiving, interpreting, identifying, and ultimately explaining sensory information about food. In this context, perception consists of signals generated in the nervous system as a result of physical stimulation of the sensory organs during food consumption (Kara, 2020). These signals, transmitted to the brain through the senses, are combined to form a meaningful whole. The perceptual selection process, however, varies uniquely from individual to individual. The factors and stimuli affecting perception are shaped by variables such as an individual's perceptual threshold, external environmental influences, interests, and selectivity. These elements generally gain meaning in line with an individual's lifetime experiences and expectations (Gezer, 2012).

Emotions, as an integral part of human behavior, play a fundamental role in interpersonal relationships and business life (Erkuş & Günlü, 2008). They have a decisive influence on people's activities, decision-making processes, various actions and behaviors, and the shaping of their future behaviors (Goleman, 2000). While individuals struggle to fully suppress their emotions, they can manage them and direct them toward their set goals. Emotions are considered a crucial element because they can positively or negatively influence individuals' perspectives on life, behaviors, and performance (Theodosius, 2006). As Hoek et al. (2017) noted, individuals consume food and beverages not only for the purpose of tasting, satisfying, and satisfying nutritional needs but also driven by the emotions that arise during eating. Eating behavior is influenced by many factors, including the type and quality of food, an individual's body image, and their social and physical environment. Emotions are one of the most significant influences on this behavior, and these emotions serve to establish connections between these variables. Due

to this importance, researchers have addressed and examined the relationships among food, eating behavior, individual characteristics, and emotions from various perspectives (Desmet & Schifferstein 2008).

Studies conducted in this context are generally classified under two main headings: First, studies focusing on the effects of emotions on eating and drinking behavior (Ganley, 1989; Macht, 1999; Canetti et al., 2002; Evers et al., 2013; Sultson et al. 2017) and second, studies examining the effects of eating and drinking behavior on emotions (Falconer, 2013; Kanjanakorn & Lee, 2017; Kim et al., 2017).

The smell of bread is a powerful force, exerting a powerful influence on both cultural and emotional aspects, profoundly impacting individuals' psychology. The feelings of trust, warmth, and belonging evoked by its scent can have a calming and soothing effect on people. Furthermore, the smell of bread can trigger memories of the past, evoke nostalgic feelings, and positively shape individuals' moods (URL-1). Proust's aesthetic exploration of the disconnect between consciousness and reality highlights the ethical dimension of the process of reconstructing the past in the construction of an individual's identity and self-awareness. When a person reconstructs their past for themselves, what they recall is actually memories they have chosen and shaped. In this sense, as Proust suggested, the disconnect between reality and memory paves the way for the formation of an ethical memory for which the individual holds themselves accountable (Proust, 2008). This theoretical perspective offers a meaningful framework for examining the effects of bread odor on sensory perceptions and emotional responses. This is because the smell of bread carries symbolic meanings in cultural contexts as well as individual experiences, and these meanings create an active interaction between memory and affect. In this context, the research question "How do individuals experience the smell of bread, and what emotional, psychological, and mnemonic associations does this smell trigger?" was the starting point. The effects of bread odor on sensory perceptions and emotional responses hold considerable potential in terms of both individual experiences and cultural contexts. However, a review of the existing literature reveals that studies systematically and in-depthly examining this unique odor, particularly in terms of its psychological and emotional effects, are quite limited. While the literature has largely focused on general olfactory stimuli from a theoretical perspective, no studies have been found that systematically examine the psychological and emotional dimensions of specific odors, particularly the smell of bread, which carry symbolic meaning at the

cultural and individual levels. This study addresses the effects of bread odor on sensory perception and emotional responses, filling a gap in the literature. Thus, it provides an original contribution to the theoretical literature and lays the groundwork for applications aimed at the effective use of sensory experiences in the food industry, marketing, and psychosocial health. Within this framework, investigating the sensory and emotional experiences specific to bread odor aims to fill a significant gap in the existing literature and contribute to both the field of sensory studies and the context of cultural meaning production.

2 CONCEPTUAL FRAMEWORK

2.1 Bread and its importance

Bread has been a staple, an indispensable element of the table in every era and culture. Bread was discovered by chance around 2600 BC and later became a preferred food for aristocrats (Gül et al., 2003). When examining the history of bread, the most striking observation is that its story parallels the beginning of human history. Different beliefs and narratives exist regarding the emergence and development of bread. From a historical perspective, it is striking that bread, the discovery of fire, and the transition to settled life are parallel. According to the oldest accepted story about the discovery of bread, after the discovery of fire, early humans noticed the pores in wheat groats soaked in water and left to age naturally. They observed that this increased flavor when cooked on hot stones. Thus, bread consumption entered their lives (Atik Gürbüz, 2019).

Bread is more than just a foodstuff; it is a way for people to position themselves within a social and cultural context. The meaning of life, the perception of time and space, and the rhythm of all social, political, and cultural elements are largely shaped around bread. While each society has its own unique bread culture, bread also possesses a universal dimension. Bread is a factor that unites not only a specific social group but all of humanity around a common value. Furthermore, bread holds a significant place within social and cultural structures, serving as a tool for maintaining social order and balance. As a universal foodstuff, bread also carries different religious, political, social, historical, and cultural meanings in each society, and has diversified forms and production processes

within these contexts. In Turkish culture, bread is a staple food, while other foods always complement bread (Karhan, 2024).

Bread is a staple in the consumption habits of nearly every household. Increasing education levels, expanding communication channels, shifts in women's social status, increased awareness of healthy eating, and developments in the retail sector have all influenced consumer shopping habits and, consequently, bread consumption. Today, bread has moved beyond being a basic food source to a diverse range of products tailored to consumers' changing preferences. This diversification has necessitated a redefinition of product diversity. Bread is perceived as a product that extends beyond its basic nutritional function, and with this shift, factors such as branding, quality, packaging, and storage conditions have begun to play a significant role (Dölekoğlu et al., 2014).

2.2 Smell and emotions

Obtaining information about events occurring in the world is a highly dynamic process, requiring the integrated use of mental and sensory elements. The role of the sensory organs in this process is to interact with the environment and enable the individual to adapt to environmental conditions. The human brain perceives the world around it by analyzing and interpreting the stimuli it receives through the sensory organs. Receiving stimuli is considered one of the brain's automatic functions. Sensory organs enable us to perceive characteristics such as color, sound, smell, texture, and taste of objects through various stimuli from the environment (Pekar, 2017). The functional integrity of these organs is critical to the quality of an individual's interaction with their environment. However, these systems tend to physiologically decline over time. The olfactory, gustatory, and trigeminal senses, considered chemical senses in particular, exhibit significant decline with aging. While optical or auditory support devices developed to counter sensory losses in the visual and auditory systems can partially compensate for deficiencies in these areas, the lack of similar intervention tools for chemical senses is noteworthy (Spence & Youssef, 2021).

The perception of smell occurs through the perception of odor compounds in the nasal cavity. This process occurs when a food item is ingested through the mouth with the nose closed, and then evaluated by opening the nose after swallowing. Flavor perception is shaped by the integration of signals related to the taste, smell, appearance,

sound, and texture of the food. The combination of these signals creates an individual's overall perception of the food (Yaparel & Elmacı, 2016). In other words, odors, in their simplest form, are molecules dispersed in the air. These molecules are detected by sensors in living beings' sensory organs and converted into electrical signals. The information transmitted to the brain is interpreted and processed as a response by the brain. Smell is a sense that is difficult to measure and define. Smell is closely related to episodic memory, which allows us to recall past experiences. This memory allows us to recall the past and predict the future based on past experiences. Smell is an expressive component. We are unconsciously exposed to odors in the environment without consciously being aware of meaningful elements in the environment. However, scent is also an important phenomenon with its cultural, social and historical dimensions (Çeven Ayan et al., 2019). Olfactory cues also play a fundamental role in the perception of food palatability. For example, individuals may hesitate to consume a foul-smelling food, even if it appears visually appetizing. However, another important factor, often overlooked, is that these odors not only have perceptual but also physiological effects. Food odors can trigger various cephalic phase responses, such as increased saliva production and the release of stomach acid and insulin. These responses are particularly pronounced during periods of hunger or when food intake is restricted. Furthermore, these physiological responses appear to be enhanced when presented with visual cues consistent with the odor. Indeed, hungry individuals can experience significant increases in cerebral blood flow when exposed to the smell and sight of their favorite foods (Spence, 2015).

The sense of smell, which humans used in ancient times for survival and to detect environmental hazards, has diminished in importance over time, but continues to exert its influence today. There is a strong relationship between the sense of smell and individual psychological state. Smell provides the most direct link between the brain and the outside world. Due to its location in the brain, the olfactory system directly interacts with psychological states such as memory, mood, stress, and concentration. Because the brain functions as a unified whole with emotions and memory, experiences associated with a particular smell are often recalled when that smell is smelled. Just as people associate certain smells with their own personal impressions, place-specific smells become associated with those places and leave a mark on a person's memory (Köse Khıdırov, 2016). The sense of smell is a crucial factor influencing an individual's connection to a

place. Smell enables the establishment of images in memory, creates a sense of belonging, and serves as one of the prominent dynamics in defining a place (Bayrakdar, 2021).

2.3 Psycho-social effects

Food preferences and choices are complex processes shaped by the interaction of environmental, cultural, genetic, social, and sensory factors. However, an innate preference for sweets is an exception to this interaction. Food choice is considered a learned behavior, reinforcing the need to encourage behavioral changes toward healthy eating. Consumption of specific foods influences an individual's eating habits and shapes the brain's chemical makeup. Nutrients are precursors to chemicals known as neurotransmitters, which are transmitted from one cell to another during neurotransmission. The level of these chemical signals influences mental health, mood, sleep patterns, and cognitive functions. Therefore, the foods consumed have a direct impact on an individual's mood, behavior, and brain function. For example, when hungry, a person often feels restless and irritated, while when full, they experience feelings of relief and satisfaction (Beyhan & Taş, 2019).

Individuals experiencing various emotional states, such as anger, happiness, sadness, shame, guilt, and anxiety, tend to use eating behaviors to cope with these feelings (Tezcan, 2009). Individuals experiencing anger often tend to eat everything they find quickly, irregularly, and uncontrollably. During happy moments, individuals may engage in hedonistic eating behaviors to benefit from the pleasure food offers. However, individuals experiencing intense emotional states, such as anxiety, anger, or sadness, often resort to snacks and unhealthy foods to manage their moods and escape emotional intensity (Wallis & Hetherington, 2009). Furthermore, the consumption of fatty and carbohydrate-rich foods has been shown to be effective in short-term emotional regulation and stress reduction. While tasty foods may alleviate negative emotions in the short term, individuals may experience feelings of regret and guilt in the long term, leading to a more negative emotional state (Bozan, 2009).

These explanations offer an important perspective in understanding the effects of psychosocial factors on eating. Emotional states directly influence individuals' eating behaviors, and this interaction is one of the fundamental elements shaping eating habits. While eating, used as an emotional regulation tool, offers short-term effects such as stress

reduction and instant gratification, such emotional eating behaviors can lead to negative psychological consequences in the long term, leaving individuals with feelings of guilt, regret, or physical dissatisfaction (Altınok, 2020). Therefore, the role of psychosocial dynamics in food choices constitutes an important area for managing eating habits and emotional states at both the individual and societal levels.

3 METHOD

The primary objective of this qualitative study is to explore the psychological and emotional responses to the smell of bread, which carries cultural and individual layers of meaning, emerging through individuals' sensory perceptions, and to reveal how olfactory experiences relate to memory, identity, and affective processes. This study is significant in determining the impact of bread, a topic that holds a significant place in almost every society, on individuals. The effects of bread smell on emotional reactions and emotional perceptions carry profound meanings not only in personal experiences but also in a cultural context. This makes the examination of bread smell important for both gastronomy and cultural studies. The literature review conducted as part of the research did not identify any studies specifically addressing the psychological and emotional effects of bread smell on individuals. We believe this study will contribute to researchers by filling a gap in the relevant literature. Phenomenology, a qualitative research design, was used in the study. The phenomenological design focuses on the meanings an individual creates as a result of experiencing a particular phenomenon (Çapar & Ceylan, 2022). This research design was chosen because the study aimed to reveal in depth the participants' subjective experiences of the smell of bread and the meaning of these experiences. A semi-structured interview technique was used as the data collection tool. The interview questions were developed by reviewing the relevant literature. Interviews allow the researcher to proceed within the framework of predetermined questions while also providing participants with the opportunity to express their own experiences and perspectives in detail (Yıldırım & Şimşek, 2016). Especially in phenomenological research, the interview technique is one of the most suitable data collection methods for revealing individuals' subjective experiences in depth (Creswell, 2013). Since the aim of the research is to reveal the individual and cultural layers of meaning related to the smell of bread, measuring these experiences with a standard questionnaire would be

insufficient. Through the interview method, participants were not only able to give short answers to the questions but also to share their personal stories, memories, and emotional associations. This contributed to the depth and richness of the study (Patton, 2014). In addition, the semi-structured interview allows the researcher to proceed around predetermined themes and questions, while also providing the flexibility to rephrase points that participants have difficulty understanding or to ask additional questions when necessary. In this respect, it offers a significant advantage in understanding a subjective and multi-layered experience such as smell (Kvale, 1996).

The research population consisted of individuals of different ages, genders, and socio-cultural characteristics residing in Sakarya, while the sample consisted of participants selected through snowball sampling. This diversity was chosen to examine whether the perception of bread smell varies depending on the environment in which individuals were born and raised. In line with the study objective, a literature review was conducted to investigate the effects of bread smell on memory, emotion, and psychology, and relevant studies were synthesized. Then, adhering to the literature, bread smell was examined under three headings: emotional effects, memory-memory, psychological and social effects, and participants were asked five questions under each heading. The questionnaire contained a total of 15 questions. Three experts were consulted to finalize the questions. As part of the research, a total of 21 participants were interviewed between November 11, 2024 and December 27, 2024. The interviews within the scope of the research were conducted during November–December 2024. Several factors influenced the choice of this time frame. First, this period was convenient in terms of participant accessibility. University students were in the midst of their academic semester, and working individuals experienced a relatively stable work routine, which facilitated access to participants from different age groups and socio-cultural backgrounds. In addition, November–December corresponds to the beginning of the winter season in Türkiye. During this period, there is an increased tendency toward bread consumption and bakery products, which allowed for stronger and more vivid associations with the smell of bread (Beyhan & Taş, 2019). Moreover, this period was consistent with the planned timeline of the study.

This study has several limitations. First, the research was conducted only with 21 participants residing in Sakarya. This limits the generalizability of the findings and highlights the need for comparative studies to be conducted in different cities or cultural

contexts. Second, the sample was selected using the snowball sampling method. While this method provides advantages in terms of accessibility, it may cause certain limitations regarding the homogeneity or representativeness of the sample. Third, the study was carried out exclusively through qualitative methods (semi-structured interviews and content analysis). Although this approach is strong in uncovering participants' subjective experiences in depth, the lack of quantitative data limits the measurable dimension of the findings. Fourth, the interviews were conducted during the period of November–December 2024. This time frame may have been influenced by participants' moods, seasonal factors, and bread consumption habits. Conducting research in different periods could reveal the effects of seasonal changes more clearly. Finally, the data used in the study were based on participants' subjective statements. Their personal interpretations, emotional intensities, or selective recollections of the past may limit the direct accuracy of the findings.

In this study, content analysis was chosen as the method of analyzing the collected data. In this respect, content analysis was considered the most appropriate data analysis method for the nature of this study. Following the completion of the literature review, November–December provided an appropriate interval for conducting interviews. Furthermore, as individuals spend more time indoors during the winter season, participation rates in the interviews increased, contributing to the attainment of data saturation (Yıldırım & Şimşek, 2016).

The content analysis method was used in the analysis of the data. Content analysis is a technique that enables the systematic classification, coding, and organization of written or verbal data obtained from participants under specific themes (Krippendorff, 2013). This method makes it possible to present in a more meaningful and organized way the in-depth information related to individuals' subjective experiences (Miles & Huberman, 1994). Since the aim of the research is to uncover participants' emotional, psychological, and mnemonic associations with the smell of bread, it was necessary to systematically analyze the qualitative data obtained from the interviews based directly on participants' statements. Content analysis allowed for the extraction of common themes, patterns, and layers of meaning from these data and ensured that the interpretations were developed in a data-driven rather than a subjective manner (Yıldırım & Şimşek, 2016). Moreover, content analysis supports the credibility and reliability criteria of the study. By deriving themes directly from participants' statements, the findings were presented

transparently and consistently. Validity refers to the extent to which a study can accurately and comprehensively represent the phenomenon under investigation (Lincoln & Guba, 1985). In content analysis, validity is ensured by grounding the derived themes in participants' statements, presenting interpretations transparently, and providing a detailed description of the research process. In this study, validity was established by including direct quotations from participants, supporting interpretations with data, and presenting the analysis process in a clear manner. Reliability refers to the consistency and replicability of research findings (Miles & Huberman, 1994). In content analysis, reliability is achieved by grouping similar expressions under the same theme, ensuring that similar results can be obtained by different researchers, and minimizing subjective bias in interpretations. In this regard, the coding process in the study was carried out systematically, similar statements were grouped together, and the themes were created based directly on the participants' statements. The frequencies of these themes were presented in tables. The themes were based directly on the participants' statements. In addition, expert opinions were sought to compare the coding process and to support its consistency. Themes were derived based on the participants' direct statements. Reliability was ensured by directly linking data to participant statements, presenting themes clearly and consistently, and transparently conveying the analysis process. The interviews were limited to 21 participants. The interviews lasted a minimum of 23 minutes and a maximum of 36 minutes. With permission from the participants, the interviews were recorded using a voice recorder, and the recorded audio was later transcribed into a written document. Questions that were unclear to the participants during the interview were re-directed to the participants in a more comprehensible manner, ensuring appropriate responses. Participants' responses were transcribed without any commentary.

4 FINDINGS

The research findings were examined under three headings: emotional effects, memory, psychological, and social effects. The demographic characteristics of the interviewed participants are presented in Table 1. Of the participants, %62 were female, %57 were married, %38 were between the ages of 31-40 and 41-50, %48 had undergraduate and graduate degrees, %24 were academics, and %24 were born and raised in Sakarya. Participants' demographic information is crucial for interpreting the research

findings. Demographic information is thought to have the potential to influence the content of participants' responses and the perception of bread smell. For example, while middle-aged and older individuals may be more likely to associate the smell of bread with village life, longing for the past, or family elders, this association may be weaker among younger participants. It is possible that more educated individuals, influenced by health concerns and modern nutritional trends, may approach bread more critically and consider it "just another food." Therefore, this diversity in the participant profile is seen as an element that enriches the findings of the research.

Table 1

Demographic Information of Participants

Demographic Characteristics		f	%
Gender	Female	13	62,0
	Male	8	38,0
Marital Status	Married	12	57,0
	Single	9	43,0
Age	21-30	4	19,0
	31-40	8	38,0
	41-50	8	38,0
	51 and above	1	5,0
Educational Status	High School	1	4,0
	Undergraduate	10	48,0
	Graduate	10	48,0
Occupation	Teacher	2	9,0
	Manager	2	9,0
	Communication Specialist	1	5,0
	Academic	5	24,0
	Freelance	3	14,0
	Housewife	2	10,0
	Student	3	14,0
	Retired	1	5,0
	Civil Servant	1	5,0
	Cook	1	5,0
Place of Birth	Sakarya	5	24,0
	İzmir	1	5,0
	Ardahan	2	7,0
	Almanya	1	5,0
	İstanbul	3	14,0
	Karaman	1	5,0
	Erzurum	1	5,0
	Çanakkale	1	5,0
	Adana	1	5,0
	Bursa	1	5,0
	Balıkesir	1	5,0
	Malatya	1	5,0
	Ordu	1	5,0
	Gaziantep	1	5,0

Participants' responses to the emotional effects of the smell of bread, the effects of the smell of bread on memory, and the psychological and social effects of the smell of bread are listed below, respectively, and their frequency of occurrence. The responses were then analyzed, and some notable participant responses were directly quoted.

4.1 Emotional effects of bread smell

The findings regarding the emotional effects of the smell of bread are presented in Table 2. Five questions were posed to participants to determine the emotional impact of the smell of bread on individuals. The table shows the questions posed and the themes generated based on the responses. Participants provided more than one answer to some questions. Throughout the study, the letter "K" was used as an abbreviation for "participant," and a separate code was created for each participant.

Table 2

Theme 1: Regarding the Emotional Properties of Bread

Question	Codes	Frequency of mention
<i>Does bread have any other meanings for you beyond being a food? Explain.</i>	Continuity of life	3
	Fatiation	1
	Happiness	2
	Just one food	5
	Sacred food	7
	Family	2
	Togetherness/solidarity	1
<i>How do you feel when you smell the bread? Explain.</i>	Family warmth	8
	Calm	1
	Happy	6
	Hungry	6
<i>Does the smell of bread evoke anything specifically related to your childhood or past experiences? Explain.</i>	The bread your mother makes in winter	3
	The father's arrival from a distant place without working	2
	There's no invitation	2
	Family tables	5
	Lines for pita bread during Ramadan	3
	Longing for your old home	3
	Neighborhood bakeries	2
	The younger family member going to buy bread	2
The village house	3	
<i>Do you think the smell of bread could be a factor that changes the meaning of being together? Explain.</i>	Strengthening togetherness	7
	Strengthening family ties	7
	Creating a pleasant environment	3
	Does not affect the atmosphere	3
	Sharing bread with siblings	2
	Yes	15

Do you think the smell of bread evokes a feeling of compassion and love? No

6

When the answers to the question “Does bread hold any other meanings for you beyond being a food?” are examined, the prominent codes are respectively: **a sacred food (7), just a food (5), and the continuity of life (3).** Below are some notable answers from some participants;

-Bread is more than just food; it carries a much deeper meaning for me. It symbolizes the foundation of life; in a sense, it's a concrete representation of survival and labor. (P1)

-Bread isn't just food for me; on the contrary, it's sacred to me. We were taught that as children; if we found a piece of bread on the ground, we'd pick it up and set it aside so the birds wouldn't chew it, or we'd never waste bread crumbs; we'd pick up even the smallest crumbs with our spoons and eat them. Similarly, we consume stale bread and try not to waste it. There's also a common belief where I live that those who don't waste bread become rich. In short, bread is sacred to me. If there's no bread, I feel like there's nothing left in the house. (P5)

-Bread has a spiritual value and sacredness. (P10)

When the answers to the question “How do you feel when you smell the bread? Please explain.” are examined, the prominent codes are respectively family warmth (8), happy (6), and hungry (6). Some participants' answers were as follows;

-When I smell bread, I feel happy because even its scent evokes positive emotions. It creates a warm atmosphere, a safe haven, and an instinct to daydream. I find bread the same as a mother's scent; bread is the mother of all food. It's the main character of a peaceful home. (P4)

-When I smell bread, I feel hungry. Even if I'm full, I immediately want to spread something between the warm bread and eat it. (P6)

-When I smell bread, I feel peaceful and happy. The smell of warm bread often brings back memories of home, happy family meals, and childhood memories. (P12)

When the answers to the question “Does the smell of bread remind you of anything specifically related to your childhood or past experiences? Please explain.” are examined in terms of prominent codes, it is seen that the codes are **family tables (5), the bread my**

mother made in winter (3), and the longing for the old hometown during Ramadan

(3). Participants' opinions on the subject are as follows;

-When I was a child, my father would be away from us for long periods of time because of work, and when he returned, my mother would make sure there was fresh bread on the table when we all gathered together. I would go to the bakery to buy warm bread. I used to describe the smell of warm bread as a family gathering. (P2)

-Yes, it reminds me of the pita queues, the rush and excitement, especially during Ramadan. (P7)

-As the youngest child in the house, I always went to get bread. This memory, which was like a journey of discovery for me, would be crowned by my return, taking a piece of bread and eating it before returning home. Bread report cards were especially indispensable to my childhood. The colorful report cards my father would collect once a month, 250 of which were due to the family being under six, are among the most pleasant and memorable images of my childhood. (P11)

When the answers to the question “Do you think the smell of bread could be a factor that changes the meaning of being together? Please explain.” are examined, the prominent codes are listed as reinforcing togetherness (7), strengthening family ties (7), creating a pleasant atmosphere (3), and sharing bread with siblings (3). Some participant opinions are as follows;

-Bringing bread when we visit guests for dinner, or if we can't cook, bringing bread to a funeral home, reminds me of both filling the stomach and solidarity and togetherness. (P8)

-We are six siblings. I grew up in a large family. I can say there's something about it that can't be shared. Sharing the biggest piece of warm, freshly baked bread with my siblings was difficult when I was little. (P14)

-The smell of bread today doesn't have as deep a meaning as my memories. Now, it evokes a warm breakfast; it can be enjoyed alone or shared with friends. When I was little, the smell of fresh bread was closely linked to the meaning of being together. It reminds me of the big family meals we shared as a family while waiting for my father to come home from the oven. (P16)

The majority of participants (n=15) responded "yes" to the question, "Do you think the smell of bread evokes feelings of affection and love? If so, please explain how

this feeling arises?" Six participants did not associate the smell of bread with feelings of love and affection. Some notable responses to the question are as follows;

-I think so. Bread making is labor, and the person who labors to make bread at home is most likely the mother. A mother is undoubtedly the most compassionate person in a family. Bread baked at home is proof of a compassionate and loving mother. Emotions are contagious. That compassion and love are transmitted to us through the smell of bread. (P15)

-Yes, the smell of bread generally evokes a feeling of affection and love. This feeling stems from the fact that in many cultures, bread making and sharing are linked to family unity and love. Bread means much more in my life; it represents both a warm memory and an important part of the table where family bonds begin. I think bread represents compassion, love, labor, cooperation, and value. (P16)

-Bread is indispensable because it's the most accessible foodstuff. I don't think it's merely a reflection of purchasing power and has a unifying quality. Human beings always find an instrument with which to form emotional bonds. Indeed, this can be a food, a person, or an object. (P20)

Looking at the responses to questions posed under the theme of the emotional effects of bread scent, it's clear that the scent of bread carries a strong emotional meaning for participants. A significant majority of participants described bread as a sacred food and associated its scent with positive states such as happiness, togetherness, compassion, and family warmth. This demonstrates that bread is not simply a food, but carries a meaning shaped by social values and cultural norms. It's noteworthy that some participants, despite simply describing bread as a food, still associated it with a person or memory from the past. This suggests that the scent of bread may have a subconscious influence on emotional memory.

4.2 The effects of bread smell on memory

The findings regarding the effects of the smell of bread on memories and memories are presented in Table 3. Participants were asked five questions to explore how the smell of bread affects people's memories and memories. The table shows the questions posed and the themes generated by the responses. Participants provided more than one answer to some questions.

Table 3*Theme 2: Regarding the Effects of Bread on Memory*

Question	Codes	Frequency of mention
<i>Is the smell of bread connected to any special memory or place? If so, can you describe that memory?</i>	Family gatherings	1
	Village	6
	Charity	4
	Father's home	1
	Childhood	4
	School years	2
	First fast	1
	Pide queues during Ramadan	2
<i>Does the smell of bread remind you of someone from your past? Explain.</i>	Grandmother	5
	Grandmother	6
	Aunt	2
	Mother	5
	Father	2
	Relatives	2
	No	2
<i>Was there anyone at home baking fresh bread when you were a kid? How did that make you feel?</i>	Mother	16
	Grandmother	2
	Market/Bakery	3
	Grandmother	2
<i>Do you associate the smell of bread with your past homes or places you've lived? Explain.</i>	Family home	3
	Coffeehouse	1
	Mother-in-law's house	1
	Village house	3
	Erzurum	1
	Cyprus	1
	Student housing	4
	Malatya	1
No	3	
<i>Could the smell of bread also be linked to a journey or a travel memory? Explain.</i>	Village visit	7
	Fethiye	1
	Picnic	5
	Türkiye visit	1
	City tour	1
	Grazing animals	1
	Maşukiye	1
	No	3

Is the smell of bread associated with any special memory or place? If yes, can you tell me about that memory? This question was most frequently associated with the “village” in a spatial context, mentioned six times. When the memories were evaluated, it was determined that participants most often associated the smell of bread with their childhood. Some participants' opinions are as follows;

-For me, bread is connected to our village. Because when I was a child and we went to the village during summer vacations, my grandmother would bake village bread in an earthen oven for the family returning from the fields. The mention of bread brings back this memory. (P2)

-Yes, the smell of bread brings back memories of when we came to Turkey from Germany as a child and they would send me from the upper neighborhood to the market downstairs to buy bread. On hot summer days, we would run down the steep hill, fill the warm bread into bags, and take it home for breakfast. Also, after we got a little older, my uncle would send my younger children to the market, and because we were crowded together, they would come back with huge bags of bread, ten at a time. (P5)

-The smell of bread always reminds me of the village, my childhood there, the competition my cousins and I would have for the bread from the earthen oven, our laughter, and sometimes our fights. (K7)

-Well, I'm from Malatya, and every summer, we'd go because my grandmother and paternal grandmother were there. They'd gather with the village women early in the morning and make yufka bread and tandoori bread for us on a sac. My cousins and I would wake up to the smell and run to them. It might sound strange, but sometimes when I pass by a bakery, it takes me back to those happy times. (K19)

Does the smell of bread remind you of someone from your past? Please explain. The most common answer (6) to the question was "grandmother." This answer was followed by "grandmother" and "mother." There were also notable answers such as "aunt-in-law" and "relative." Some participants' answers to the question were as follows;

-Sometimes she reminds me of my grandmother. She loved the combination of bread and olive oil. I got used to it as a child, and I still love it. (P3)

-It reminds me of my father. I approach this question emotionally because I'm far away from him now. It makes me very sad to spend Ramadan away from him. Sometimes I miss him coming in with warm bread wrapped in newspaper in his hand, and sitting down together at the iftar table. (P11)

-For people like us who were born and raised in the city and have been buying bread from the grocery store or bakery since childhood, the smell of warm bread is either smelled when you pass by the bakeries, or if you're lucky like me, you have a village where you can smell this wonderful scent inside your home. So, the first memory the smell of bread reminds me of from the past is always my village and my relatives there. (P15)

The most common answer to the question "When you were a child, was fresh bread baked at home? How did that make you feel?" was **mother (16)**. The second most frequent answers, **bakery/market (3)**, are also noteworthy. Some participants' responses are listed below;

-Yes, my mother was there. We would gather around her while she baked bread and eat it. We would play while she baked bread, and we would feel safe. (P4)

-Yes, my mother would make potato and yeast flatbreads at home on cold winter days when I was a child. The kitchen would be warm when my mother baked those breads, and it would give me a sense of peace. (P5)

-The bread my grandmother made on a griddle always reminded me of her. (P18)

-Bread wasn't baked in our house; we bought ready-made bread. (P20)

Is there anything you associate the smell of bread with your past homes or places you've lived in? Please explain. The most common response (3) to the question was "student housing." It is noteworthy that bread is directly associated with a place such as "Malatya (1)," "Erzurum (1)," and "Cyprus (1)." Some participants' responses to the question are as follows;

-Especially during my university years in Aksaray, when I was living away from home, my tradition of baking fresh bread didn't really continue. But somehow, when I passed a kitchen with the smell of bread wafting from outside, or when I bought fresh bread at the market, that smell would remind me of my own home. No matter which city I moved to, the smell of bread always reminded me of the warmth of my past home, my family, and those moments. (P1)

-As a child, when I was playing in the neighborhood, meatballs were sold in front of the local coffeehouse. When I remember where I lived, the smell of meatballs and bread there comes to mind. (P2)

-My grandfather had an old mansion in the Pasinler district of Erzurum. Inside the house was an old oven. The puffed breads, in particular, remind me of that house, that smell of fresh bread. (P11)

-When my father was stationed in Cyprus, our house was in a small village. Every morning, soldiers would bring the bread around 7 a.m. The bread was fresh and warm. The smell of the bread would spread throughout the village. (K12)

-I can't quite relate to where I live, because as someone born and raised in the city, we rarely baked bread in our homes. (K15)

When the answers to the question "Could the smell of bread also be linked to a travel or trip memory? Please explain." are examined in terms of codes, the prominent

answers are respectively village visit (7) and picnic (5). Some notable responses are listed below:

-When I was a kid, when we went to the village during summer vacations, my uncle would give me the task of putting the corn kernels in sacks and taking them to the mill. When I ran out of flour, I'd go to the mill to have the corn ground. (P2)

-Yes, it could actually be related. When we got married, we toured Turkey as a honeymoon by car. We ate the special breads of each place, and I was impressed. The most memorable thing is a place called Senit Ekmek in Fethiye. The smell of that bread was wonderful. (P3)

-The simplest example is what we used to make on picnics, like sandwiches. Bread is a companion to our life's journey. It comes with us and lives with us. (P4)

-As a child, our visits to my grandfather's fields were like feasts. Barbecues, organic breakfasts, and the indispensable smell of fresh bread... I can say that the most appetizing part of my memories is this. (P11)

In the theme of the effects of the smell of bread on memory, it was found that the majority of participants associated the smell with their past homes, family ancestors, village life, and childhood memories. These associations demonstrate that smell plays a powerful triggering role in individual memory. It is noteworthy that the smell of bread is associated with social connections such as picnics, pita queues, and village trips. It is noteworthy that participants emphasized the emotional atmosphere created by the smell when recounting these memories. Based on this, it is possible to consider the smell of bread as a powerful sensory element that mediates individuals' re-experiencing the unity of "time, space, and emotion."

4.3 Psychological and social effects of bread smell

Findings regarding the psychological and social effects of bread odor are presented in Table 4. Five questions were asked to participants to determine the psychological and social effects of bread odor on individuals. The table displays the questions posed and the themes generated based on the responses. Participants provided more than one answer to some questions.

Table 4*Theme 3: Psychological and Social Effects of Bread*

Question	Codes	Frequency of mention
<i>Does the smell of bread create feelings of being home, spending time with family, or being in a safe environment? Explain.</i>	The feeling of being in a familiar environment	5
	The happiness of being with family	11
	The feeling of hunger	1
	Unity/Togetherness	3
	Considering bread consumption harmful	1
<i>How does the smell of bread affect your social relationships or social bonds? Explain.</i>	Strengthening bonds	7
	Sense of togetherness	5
	Sincerity	1
	Feeling no positive impact	5
	Increasing sharing	3
<i>How would you describe the effect of the smell of bread on emotional states such as stress or anxiety?</i>	It has a calming effect.	12
	It has a pleasurable effect.	7
	It creates a trusting environment.	1
	It can increase anxiety	1
<i>Do you feel more comfortable, safe or happy when you smell the bread?</i>	Yes	18
	No	3
<i>How does offering bread to your guests affect your hosting style? Explain.</i>	Hospitality indicator	8
	Value indicator	8
	Bread losing its meaning	1
	Having no effect	4

Does the smell of bread create feelings like being at home, spending time with family, or being in a safe environment? Please explain. Participants gave different answers to the question, and the most common (11) associated the smell of bread with the happiness of being with family. It is also noteworthy that among the answers given, it was stated that the smell of bread gives the feeling of being in a familiar environment (5). Some participants did not associate the smell of bread with the concept of family. In this context, it was stated that bread consumption is harmful (1) and that the smell of bread only causes hunger and carries no other meaning (1). Some participant responses are as follows;

-The smell of bread makes me feel hungry. Bread has no connection to my family. (P6)

-Yes, the smell of bread reminds me of the warmth of being at home and being with family. Warm bread symbolizes moments spent with family members and a safe environment, which creates a sense of peace and happiness. (P16)

-Yes. Bread is already an element that can be associated with family. In our society, it's also seen as a staple food. But even in old movies, families sit together at a table and share bread. In short, bread already evokes family. (P21)

To the question, "How does the smell of bread affect your social relationships or social ties?", please explain. 16 participants responded positively, while only five participants stated that they did not think it had a positive effect. An examination of the responses reveals that the smell of bread is most often associated with "strengthening ties" (7). Some participant responses are as follows;

-The smell of bread certainly binds a society together. It's a product that spreads a sense of warmth in every environment it's in. It holds society, family, and friends together, or it facilitates unity. Bread is a meal in itself. (P4)

-I don't think it affects my social relationships or social ties, but I want to eat a piece wherever I smell bread. (P7)

-Sharing the warm bread we bought from the bakery with my friends when we were students was a joy. (P10)

When the answers to the question "How would you describe the effect of the smell of bread on emotional states such as stress or anxiety?" are examined in terms of codes, the most frequently mentioned response was that the smell of bread has a calming effect on states such as anxiety/stress (12). Some comments are provided below;

-The smell of bread can have a soothing effect on emotional states such as stress and anxiety. The smell of fresh bread, in particular, evokes peaceful memories from the past and the safe environment at home, which can reduce anxiety. The smell of freshly baked bread creates a sense of relaxation and serenity. (K12)

-In a study on scents, participants reported that the most pleasant smell in the world was that of a newborn baby, and the second most pleasant smell was the smell of freshly baked bread. If the smell of bread is one of the best scents that comes to mind when pleasant scents are mentioned, it certainly has a significant effect on the senses. The smell of bread can evoke pleasant memories in a person's subconscious, which can be a stress and anxiety-reducing factor. (K15)

-I don't think bread will cause stress or anxiety. However, when someone earning minimum wage and smelling bread while passing by a bakery, they

might calculate how many loaves of bread they'll buy for their children. This can lead to anxiety. (K18)

When you smell bread, do you feel more comfortable, safe, or happy? What effect do these feelings have on your daily life? Almost all participants (n=18) answered "yes." When the responses are examined, it's possible to say that the smell of bread generally creates a sense of well-being in people. Some of the responses are as follows;

-Yes, I feel it. I want to set long, enjoyable tables with fresh bread in my daily life. Such environments allow for longer conversations and more enjoyable times. (P3)

-Warm, freshly baked bread always brings joy. But it's not an addiction, it's a pleasure. Therefore, it doesn't affect my daily life. (P7)

-Yes, I feel it. Even if I'm full, the smell of warm bread coming from a bakery I pass makes me happy. (P11)

-Yes, the presence of bread and the smell of bread creates a feeling of gratitude in me. Whenever I smell bread when I come home, I feel very happy. Because that smell shows me that my mother, who made that bread, is alive. I'm grateful for that. (P17)

How does offering bread to your guests affect your hosting style? Please explain. The responses "show hospitality" and "show value" were given with equal frequency (8) to the final question. It is noteworthy that participant K5, whose direct statement is given below, mentioned the loss of value that bread had held in the past. Some participants' responses to the relevant question are as follows;

-Bread is perceived as a symbol of traditional and genuine hospitality. Therefore, offering bread at the table isn't just about offering a meal; it also expresses that I value the guest, that I've made a special effort to welcome them, and that I want to create a warm atmosphere in my home. Bread is a silent yet powerful way of opening the doors of the house and welcoming the guest. (P1)

-Offering bread to guests isn't particularly important to me because nowadays, we're constantly faced with phrases like "don't eat bread, it's harmful, reduce your bread intake," and I think this generation has moved on. For me, when I hear the word "guest," I think of "barren," "basket," and "cake," but whenever we have guests over, and my father is with us, his first question is, "Is there bread at home?" Therefore, I think there's a difference between the two generations. (P5)

-On our tables, bread is not the main dish, but a complementary one. Therefore, it doesn't change my way of hosting." (P7)

-In my opinion, hospitality means welcoming unexpected guests into your home and setting up a table. In such traditional situations, guests eat whatever they find, and there's always something to offer them, usually bread. I believe that offering bread to guests or taking bread with you to a guest conveys sincere feelings. (P8)

-I don't think offering bread to guests is directly perceived as a symbol of hospitality. However, it's still an important act of kindness, as it shows that the person you're receiving is valued. (P13)

Responses to questions posed under the theme of the psychological and social effects of bread scent revealed that the scent psychologically provides individuals with feelings of relaxation, peace, and security, and reduces stress and anxiety. The vast majority of participants associated the scent of bread with values such as hospitality, strengthening social ties, and family togetherness. This suggests that the scent of bread carries symbolic meaning for belonging and social solidarity. A small number of participants stated that the scent of bread did not have a social or emotional impact on them. This difference suggests that variables such as lifestyle, cultural context, and individual history influence the perception of the scent. Finally, the association of bread consumption with modern health discourses demonstrates a tension between current nutritional trends and the cultural meaning of bread.

5 CONCLUSION AND RECOMMENDATIONS

Bread is a product made from basic ingredients such as yeast, salt, water, and wheat flour, along with the addition of sugar, enzymes, enzyme sources such as malt flour, vital gluten, and approved additives when necessary. This mixture is kneaded and shaped using a specific technique, then left to ferment and then baked. Bread holds an important place as a staple food due to its low cost and easy availability compared to other foodstuffs, as well as its nutritious and satisfying properties. In Turkey, due to centuries-old dietary habits and socioeconomic structure, per capita bread consumption is among the highest globally (Bircan et al., 2017). Bread is a crucial food in Turkish society. In fact, it has become a frequently used word in idioms and metaphors. For example, there are many expressions that refer to earning the money people need to make a living, such

as "to make bread from the stone," "to fight for bread," "to prevent bread," "to take one's bread from one's hands," and so on. This situation explains the place and importance of bread in Turkish society (Zülfikar, 2012). Based on this, it is possible to say that bread influences human relations, sometimes as a symbol of hope and struggle, and sometimes as a symbol of abundance and prosperity.

Within the scope of the study, the emotional effects, effects on memory, and psychological-social effects of the smell of bread were examined and interviews were conducted with 21 people. Firstly, when the effects of the smell of bread on people's emotions were focused, it was found that bread is mostly considered a sacred food, the smell arouses a feeling of family warmth in people, evokes memories of sitting at tables with the family, the smell of bread has a reinforcing-strengthening aspect of togetherness in people and evokes a feeling of compassion. In the light of these results, it is possible to say that the smell of bread goes beyond being just the aroma of a food item for people and also has religious, social, cultural and societal meanings. Çetinkaya & Yıldız (2018: 439) reported in their study that bread has been a known and consumed food source since the Neolithic Age, that this food is extremely important for the Anatolian people, that it is used in holy books, superstitious beliefs, songs and folk songs, and that this is an indicator of the value given to bread. This opinion of the authors supports the research results. When the effects of the smell of bread on memory and memory are examined; It has been revealed that the smell mostly reminds one of villages, reminds one of grandmother, but the person who bakes bread at home is usually the mother, and is associated with student homes due to the longing for being away from family, and is associated with village trips. A study by Koç (2016) supports these findings. The author stated that the scent of freshly baked bread in some American supermarkets during the evening hours led to an increase in food sales. He explained that customers who smelled bread in the supermarket felt a sense of motherly love and warmth, recalling the pastries and cakes their mothers made in their childhood. Smell is a powerful communication tool that connects with our senses. Therefore, it's safe to say that the smell of bread evokes memories of the past, the family's place at the table, and the desire for togetherness. Finally, when considering the effects of the smell of bread on psychology and social relationships, it was found that it often has a calming effect on people, promotes feelings of comfort and security, plays a significant role in strengthening interpersonal bonds, and is seen as a symbol of hospitality and value. Feelings of happiness, calm, and security are

often associated with concepts of family and motherhood. This can be interpreted as the perception of bread fostering a sense of belonging.

Every society has its own unique diet and bread variety (Badem, 2021). However, in some societies, bread is considered more filling than other foods and can be used as an additive to many foods. These characteristics make bread an indispensable part of the table and also ensure that it is attributed a sacred value (Arslan & Aydın, 2019). At the same time, in Turkish society, bread symbolizes sweat, sharing, and abundance (Tepecik & Gümüş, 2017). In this respect, it is possible to argue that bread, the most fundamental component of meal preparation for people, also reflects the time spent together, family ties, and memories of the past, symbolizing the solidarity and sharing necessary for people to continue their lives together. In social life, it can be interpreted that bread reveals the differences between poverty and wealth, is a symbol of hospitality, tolerance, and cultural richness, and nourishes not only people's bodies but also the bonds between them. In this respect, bread symbolizes life itself, the essence of existence and coexistence.

In the study, participants were asked a total of 15 questions to uncover the effects of the smell of bread on emotions, memories, and psychology. Only five participants explained that bread is merely a source of nutrition for them, citing its negative effects on nutrition or its frequent consumption in their home environment/family. However, even for these individuals, the smell of bread was observed to evoke a person, a place, a journey, or an emotion. Some suggestions were developed within the scope of the study;

- Studies can be conducted to examine the meanings attributed to the smell of bread in different cultures and the similarities and differences in how this smell is perceived. This can provide in-depth insights into how cultural differences influence the perception of bread smell and how different marketing strategies can be tailored accordingly.
- The emotional responses triggered by the smell of bread in the brain can be investigated through neuroimaging methods (e.g., fMRI). In this way, the interaction between smell, memory, and emotion can be revealed with more scientific data.
- Studies can be conducted to examine the impact of the smell of bread in supermarkets and restaurants on sales in modern consumer societies. This can reveal the effects of bread smell on consumers.

- A study can be conducted to examine the sacred nature of bread in different religions and its place in religious rituals.
- The impact of the smell of bread on family, tradition, and collective memory can be integrated into educational materials and cultural transmission processes. Such studies may serve as a guide, particularly in the transfer of cultural values to children.
- A study can be designed to explore the relationship between income level and bread consumption habits. This can reveal the impact of economic status on bread consumption.
- Bread consumption can be addressed from a health perspective. This can identify the impact of bread consumption on public health. In particular, nutritional values, gluten sensitivity, and the impact of healthy bread alternatives on public health can be examined.
- Quantitative studies can be conducted to examine the relationship between income level, lifestyle, and bread consumption habits. In this way, the symbolic role of bread among social classes can be understood more clearly.
- Bread consumption in tourist facilities can be investigated by meal, nationality, gender, and food type.
- The effect of the smell of bread on consumer behavior in environments such as restaurants, hotels, and supermarkets can be investigated through experimental studies. These findings may yield applicable results, particularly for gastronomy tourism and marketing strategies.
- Bread and the smell of bread can be evaluated within the scope of destination branding and gastronomy tourism. The symbolic meaning of bread can be utilized in the cultural promotion of Türkiye.

This study reveals the emotional and psychological effects of the smell of bread on individuals, revealing the relationship between sensory experiences and the production of memory, identity, and cultural meaning. This study demonstrates how an everyday scent can profoundly impact individual life experiences, offering a unique perspective for sensory-based research.

REFERENCES

- Altınok, M. (2020). Yeme Tutumları, Duygusal Yeme, Farkındalıkla Yeme ve Ortoreksiyanın Metakognisyonlar Açısından İncelenmesi, (Yüksek Lisans Tezi), İstanbul: Fatih Sultan Mehmet Vakıf Üniversitesi, Lisansüstü Eğitim Enstitüsü.
- Arslan, N. ve Aydın, H. (2019). Ekmek İsrafını Önleme Niyetinin Değerlendirilmesi, *Journal of Management and Economics Research*, 17(4): 165-179.
- Atık Gürbüz, İ. (2019). Osmanlı Dönemi Metinlerinde Ekmek ve Ekmekle İlgili Anlam Çerçeveleri, *Akademik Dil ve Edebiyat Dergisi*, 3(4): 348-376.
- Badem, A. (2021). Temel Mutfak Teknikleri ve Yönetimi. Detay Yayıncılık, Ankara.
- Bakır, A., Doğan, E., Gençol, H. ve Kaya, İ. (2022). Bireylerin Yeme-İçme Tercihlerini Etkileyen Faktörler, *Anatolia Social Research Journal*, 1(1): 34-51.
- Bayrakdar, O. K. (2021). Bir Flaneur Olarak Covid-19 Sonrası Mekânsal Değişimin İzlerini Sürmek: Bakü Fevverele Meydanı Örneği, *Hacettepe Üniversitesi Edebiyat Fakültesi Dergisi*, 38(2): 597-611.
- Beyhan, B., & Taş, A. (2019). *Beslenme, ruh sağlığı ve duygu durum ilişkisi*.
- Beyhan, Y., ve Taş, V. (2019). Mental Sağlık ve Beslenme, *Zeugma Health Res*, 1(1): 30-35.
- Bircan, D., Güray, C. T. ve Bostan, K. (2017). Farklı Yöntemlerle Ekşitilmiş Hamurlardan Ekmek Yapımı Üzerine Çalışmalar, *Aydın Gastronomy*, 1(1): 1-8.
- Bozan, N. (2009). Hollanda Yeme Davranışı (DEBQ) Anketinin Türk Üniversite Öğrencilerinde Geçerlilik ve Güvenirliğinin Sınanması, (Yüksek Lisans Tezi), Ankara: Başkent Üniversitesi, Sağlık Bilimleri Enstitüsü.
- Canetti, L., Bachar, E. ve Berry, E. M. (2002). Food and Emotion, *Behavioural Processes*, 60(2): 157-164.
- Creswell, J. W. (2013). *Qualitative Inquiry and Research Design: Choosing Among Five Approaches*. Sage.
- Çapar, M. C. ve Ceylan, M. (2022). Durum çalışması ve olgubilim desenlerinin karşılaştırılması. *Anadolu Üniversitesi Sosyal Bilimler Dergisi*, 22(Özel Sayı 2): 295-312.
- Çetinkaya, N., & Yıldız, S. (2018). Somut olmayan kültürel miras unsuru Erzurum lavaş (acem) ekmeğinin turistik ürüne dönüştürülmesine yönelik bir çalışma. *Güncel Turizm Araştırmaları Dergisi*, 2(Ek1), 430-452.

- Çeven Ayan, E. ve Belkayalı, N. (6-8 Kasım 2019). Mekân, bellek ve koku, 7. Peyzaj Mimarlığı Kongresi, 6-8 Kasım, Antalya.
- Desmet, P. M. A. ve Schifferstein, H. N. J. (2008). Sources of Positive and Negative Emotions in Food Experience, *Appetite*, 50(2-3): 290-301.
- Dölekoğlu, C. Ö., Giray, F. H., ve Şahin, A. (2014). Mutfaktan Çöpe Ekmek: Tüketim ve Değerlendirme, *Akademik Bakış Uluslararası Hakemli Sosyal Bilimler Dergisi*, (44): 1-15.
- Erkuş, A. ve Günlü, E. (2008). Duygusal Zekanın Dönüşümcü Liderlik Üzerine Etkileri, *Dokuz Eylül Üniversitesi İşletme Fakültesi Dergisi*, 9(2): 187-209.
- Evers, C., Adriaanse, M., de Ridder, D. T. D. ve de Witt Huberts, J. C. (2013). Good Mood Food. Positive Emotion As A Neglected Trigger For Food İntake, *Appetite*, (68): 1-7.
- Falconer, E. (2013). Transformations of The Backpacking Food Tourist: Emotions And Conflicts, *Tourist Studies*, 13 (1): 21-35.
- Ganley, R. M. (1989). Emotion and Eating in Obesity: A Review of The Literature, *International Journal of Eating Disorders*, 8(3): 343-361.
- Gezer, H. (2012). Mekânı Kavrama Sürecinde Algılama Bileşenleri, *İstanbul Ticaret Üniversitesi Sosyal Bilimler Dergisi*, (21): 1-10.
- Goleman, D. (2000). Duygusal Zekâ Neden IQ'dan Daha Önemlidir? (Çev. Banu Seçkin Yüksel). Varlık Yayınları, İstanbul.
- Hoek, A. C., Pearson, D., James, S. W., Lawrence, M. A. ve Friel, S. (2017). Shrinking The Food-Print: A Qualitative Study İnto Consumer Perceptions, Experiences and Attitudes Towards Healthy and Environmentally Friendly Food Behaviours, *Appetite*, (108): 117-131.
- Kanjanakorn, A. ve Lee, J. (2017). Examining Emotions and Comparing The Essence Profile and The Coffee Drinking Experience in Coffee Drinkers in The Natural Environment, *Food Quality and Preference*, (56): 69-79.
- Kara, Ö. (2020). Thomas Reid'in Algı Teorisinde Görme, *APJİR*, 4(2): 250-267.
- Karhan, J. (2024). Oklavadan Sofraya Türklerin Kültürel Mirası "Yufka" Ekmeğinin Sosyotarihsel ve Kültürel Anlamı, *Uludağ Üniversitesi Fen-Edebiyat Fakültesi Sosyal Bilimler Dergisi*, 25(46): 221-233.
- Kim, J. Y., Prescott, J. ve Kim, K. O. (2017). Emotional Responses to Sweet Foods According to Sweet Liker Status, *Food Quality and Preference*, (59): 1-7.
- Koç, E. (2016). Tüketici Davranışı ve Pazarlama Stratejisi. Seçkin Yayıncılık, Ankara.

- Köse Khıdırov, B. (2016). *Mekân Algısı ve Koku: Kokunun Mekân Tasarımına Potansiyel Katkıları*, (Yüksek Lisans Tezi), İstanbul: Mimar Sinan Güzel Sanatlar Üniversitesi, Fen Bilimleri Enstitüsü.
- Krippendorff, K. (2013). *Content Analysis: An Introduction to Its Methodology*. Sage.
- Kvale, S. (1996). *Interviews: An Introduction to Qualitative Research Interviewing*. Sage.
- Lincoln, Y. S., & Guba, E. G. (1985). *Naturalistic Inquiry*. Sage.
- Macht, M. (1999). Characteristics of Eating in Anger, Fear, Sadness and Joy, Appetite, 33(1): 129–139.
- Miles, M. B., & Huberman, A. M. (1994). *Qualitative Data Analysis*. Sage.
- Patton, M. Q. (2014). *Qualitative Research & Evaluation Methods*. Sage.
- Pekar, E. (2017). *Duyusal Markalama ve Tüketicilerin Marka Algısında Duyusal Markalamanın (Beş Duyunun) Rolü*, (Yüksek Lisans Tezi), Bursa: Bursa Uludağ Üniversitesi, Sosyal Bilimler Enstitüsü.
- Proust, M (2008). *Guermantes Tarafı- Kayıp Zamanın İzinde*. Çev.: Roza Hakmen. İstanbul: Yapı Kredi.
- Spence, C. (2015). Leading the consumer by the nose: on the commercialization of olfactory design for the food and beverage sector. *Flavour*, 4(1), 31.
- Spence, C., ve Youssef, J. (2021). Aging and the (chemical) senses: implications for food behaviour amongst elderly consumers. *Foods*, 10(1), 168.
- Sultson, H., Kuk, K. ve Akkermann, K. (2017). Positive and Negative Emotional Eating Have Different Associations With Overeating and Binge Eating: Construction and Validation of The Positive-Negative Emotional Eating Scale, *Appetite*, (116): 423–430.
- Tepecik, A. ve Gümüş, Ç. (2017). Ekmek İsrafını Önleme Konulu Sosyal Sorumluluk Kampanyasına İlişkin Akademisyen, Uzman ve Öğrenci Görüşleri, *Sanat ve Tasarım Dergisi*, (19): 161-181.
- Tezcan, B. (2009). *Obez Bireylerde Benlik Saygısı, Beden Algısı ve Travmatik Geçmiş Yaşantılar*, (Tıpta Uzmanlık Tezi), İstanbul: Prof. Dr. Mazhar Osman Ruh Sağlığı ve Sinir Hastalıkları Eğitim ve Araştırma Hastanesi.
- Theodosius, C. (2006). Recovering Emotion From Emotion Management, *Sociology*, 40(5): 893-910.
- Url-1 (2025). <https://www.anadoluzlenimleri.com/ekmek-kokusu-mutluluk-hormonu-salgilatiyor-mu#> (Erişim Tarihi: 19.01.2025).

- Wallis, D. J. ve Hetherington, M. M. (2009). Emotions and Eating. Self-Reported and Experimentally Induced Changes in Food İntake Under Stress, *Appetite*, 52(2): 355-362.
- Yaparel, C., ve Elmacı, Y. (2016). Tat-koku İnteraksiyonları, *Akademik Gıda*, 14(2): 218-224
- Yıldırım, A., & Şimşek, H. (2016). *Sosyal Bilimlerde Nitel Araştırma Yöntemleri*. Seçkin Yayıncılık.
- Zülfikar, H. (2012). Anlamları, Deyimleri ve Çeşitleriyle Ekmek, *TDK Türk Dili Dergisi*, CIII, (728): 12-17.