

Research

Exploring women's visceral engagement with electric appliances in Turkish kitchens

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Abstract

This paper investigates the narratives and experiences of women regarding cooking with small electric appliances. It intends to offer a novel perspective on gender and technology studies by foregrounding the visceral dimensions of these encounters. Drawing from a larger project on the historical representations and lived experiences of domestic technologies in Turkey, it highlights how the embodied dimensions of cooking shape the ways women perceive, adapt, and integrate technology into their daily lives. This study is based on interviews with twenty-seven women across five cities in Turkey conducted between 2022 and 2024. While small electric appliances are often marketed for convenience and efficiency, we argue that focusing solely on their instrumental benefits neglects the complex and visceral ways women engage with technology. A visceral approach remains an undervalued lens for understanding these interactions, particularly as women's embodied knowledge and relationships to kitchen appliances challenge scholarship that prioritizes progress and efficiency. As active agents, many women resist these technologies, viewing them as misaligned with the embodied knowledge and practices integral to cooking. By reevaluating the relationship between food, gender, and technology, we propose that such disengagement challenges the positivist reliance on science and technology, emphasizing the importance of embodied knowledge and everyday practices in shaping women's interactions with technology.

Keywords Cooking · Technology · Domesticity · Visceral approach · Turkey

1 Introduction

The experience of cooking at home has evolved over the years due to various factors, including the proliferation of global market trends and the increasingly accessible international products, ingredients, and kitchen utensils, such as electric appliances [1]. There is a continuing discussion about the liberating impact of these appliances for women [2]. Most research indicates that while the acquisition and use of appliances have brought various benefits and contributed to the reorganization of household tasks, they have generally not resulted in significant liberation within or from the kitchen [3, 4]. The impact of these appliances on changing gender roles remains a contentious topic in the literature [5–7]. As we also argue, the significance of technology lies not just in its functions but in how it integrates into daily life, shaping experiences and habits. Previous studies show that technology reshapes social landscapes and redefines distinctions between private and public spaces, femininity and masculinity, and the organic and mechanical [5–17]. Thus, users actively interpret and negotiate their relationships with these tools [5, 9, 10, 13–18], offering insights into the complex

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interplay of everyday, gender, and technology in domestic practices. In this article, we aim to offer a fresh perspective on gender and technology studies by emphasizing the visceral aspects of user-technology encounters, which have been scholarly undervalued, and by challenging the dominant narratives of progress and efficiency that often overlook the embodied knowledge and lived experiences of women in their interactions with technology.

This article explores women's narratives and experiences with kitchen technologies. It represents a small segment of a larger research project entitled "Social History of Household Technologies in Turkey (1930–2020): Modernization in the Everyday Lives of Women," funded by TÜBİTAK (The Scientific and Technological Research Council of Türkiye). The aim of this project is to document the social history of domestic technologies in Turkey as part of the modernization process. We explore how women, as users of these technologies, engage with modernization during different periods in Turkey's history and how they, as agents, perceive the past, present, and future. The first phase of the project involves media archive work covering a 90-year history from 1930 to 2020, while the second phase, which this article is based on, consists of in-depth interviews with one hundred female users residing in five major cities: İstanbul, Ankara, İzmir, Bursa, and Adana.

Our specific focus in this article is women's encounters with small kitchen appliances. By adopting a visceral approach and focusing on the sensory and embodied aspects of cooking, we aim to add a new perspective to gender and technology studies, exploring how these appliances are either integrated into or resisted in daily life. In other words, rather than seeking rational explanations, we focus on understanding how women engage with these appliances on a visceral level. We define "visceral" as the instinctive and often unconscious reactions triggered by sensory stimuli. It encompasses those immediate, gut-level responses, as well as the physical and sensory engagements with everyday objects and activities, including, for instance, the discomfort some women feel toward electricity. This approach is crucial because, within a patriarchal, positivist framework that often places blind faith in science and technology, women's perspectives provide valuable insights that enrich the field of gender and technology studies [19, 20]. Specifically, we address the following questions: How do women engage with small electric appliances while cooking? What visceral connections tie or detach them from these technologies?

In the following section, we first review existing studies that examine the relationship between technology and cultural context, emphasizing how cultural norms, values, and practices shape the adaptation of technological tools. While these studies focus on sociocultural influences, our visceral approach goes beyond exploring the sensory and embodied experiences that arise in the interaction between users and technology. We then narrow our focus to the Turkish context, examining the historical and social factors that influence the use of kitchen technologies. Following this, we outline our methodology, which employs a visceral approach to explore the sensory and embodied dimensions of women's engagement with these technologies. Finally, we examine women's lived experiences, analyzing how visceral responses influence their perceptions, adaptations, and the integration—or rejection—of these appliances in daily life.

1.1 Cooking with technology

A central question in public discourse, including the media, revolves around whether women save time and labor by utilizing kitchen technologies. For the past fifty years, researchers have pointed out that these technologies change the type of work needed and don't help with household tasks as much as people think [8, 11]. For example, cleaning these appliances after each use adds extra work for women at home. Additionally, while these technologies help preserve food, they also require preparing more meals [11]. These studies suggest that the decrease in time spent on household tasks is not due to technology but because women work outside the home [8].

Carole Counihan (2016) rightly asserts in the Afterword of the book *Cooking Technology: Transformations in Culinary Practice in Mexico and Latin America*, "People adopt or resist new technologies for multiple reasons: cost, nostalgia, ritual connotations, cultural capital and distinction, or identity considerations" [23]. Individual experiences and everyday practices significantly shape how people engage with appliances and cooking practices. Women users actively shape technology by infusing it with cultural, ritual, and spiritual significance. This complexity is evident in the study of Mayan culinary traditions in Mexico, where people describe frijol colado (strained black beans) as tasting better when prepared using a metate, a traditional grinding stone. One woman remarked that beans ground on metate taste superior to those blended mechanically. This sense of nostalgia extends across different cooking methods, as Mayans, whether from urban areas or rural villages, consistently consider handmade tortillas more tasteful than machine-made ones [24]. In the context of the Ch'orti' Maya of Eastern Guatemala, tortillas carry profound spiritual significance, offering both physical sustenance and nourishment for the soul. For the Ch'orti', a home is defined by the presence of women with skilled hands to shape tortillas and their ownership of a metate and comal (griddle). Thus, home becomes the center of the most essential feminine work in the community: the making of corn tortillas. While electric appliances like mixers

offer practical advantages, they fall short in aligning with key aspects of Ch'orti' culture, particularly in terms of cultural significance [25]. This example highlights the need to consider cultural and ritual beliefs and practices when evaluating the adoption and use of culinary technologies.

Sandra Aguilar-Rodriguez's examination of modernization in Mexico during the 1940s and 1950s also provides valuable insight. Her study, which focuses on refrigerators and blenders, reveals how women from various races and social classes employed these tools for distinct purposes. For example, a working-class woman might use a blender to crush chili peppers for salsa, while in upper-class households, blender was often used by maids to make milkshakes. In contrast, salsa was traditionally prepared using a Mexican mortar to preserve its 'authenticity' [26]. This contrast underscores how class and cultural context shape the use of domestic technologies, further illustrating the complex interplay between technology, identity, and daily practices. Although these studies focus on sociocultural influences and examine the relationship between technology and traditions, habits, and rituals, they rarely address visceral responses to technology. Our approach, by contrast, emphasizes the sensory and embodied experiences of users, uncovering how these interactions shape the meaning and usage of technology. This visceral perspective enables us to explore a new dimension in the interplay between technology and gender.

Technology has consistently been intertwined with modernization in Turkey, serving as both a driver and an indicator of progress. It represents positivist ideals, often reinforcing patriarchal notions of development and control. Kitchen technologies are relatively new. While white goods such as refrigerators and ovens were introduced and promoted as early as the 1930s, their widespread adoption only began in the 1980s. The limited reach of Turkey's electrical infrastructure, confined mainly to city centers, was the main factor. Without access to electricity, most households couldn't use kitchen appliances, making white goods more a symbol of status than practical items. This is aptly illustrated in the 1948 play *Paydos* by playwright Cevat Fehmi Başkut, where the refrigerator—referred to as "Frigidaire"—is mocked as a part of a flashy lifestyle defined by unnecessary spending. One character boasts, "How many Frigidaires do you have at home? We have two" [27], emphasizing the performative value of such items in Turkish society at the time. Throughout the 1960s, news about smuggling white goods became common in newspapers as people resorted to unauthorized means to bypass import restrictions. The refrigerator emerged as a symbol of the growing disapproval of import policies and the trend toward conspicuous consumption habits [28]. By the 1970s, as electrification began reaching rural areas, then-President Süleyman Demirel addressed women in a newly electrified village, encouraging them to "Tell your husbands to buy you a refrigerator," underscoring the appliance's status as a desirable item.¹ Only in the 1980s did refrigerators and other white goods become standard fixtures in households, weakening their association with luxury. Until then, the number of brands available in the market had increased, offering a wide range of models to meet various needs and budgets. At the same time, domestic production of white goods also commenced. Particularly, the rise of the habit of buying in installments, which became prominent in the 1980s, contributed to an increase in the purchase of white goods as well [28]. Advertisements from that period often highlight installment options to entice potential consumers. However, similar to President Demirel's approach in the late 1960s, these ads primarily target men as the primary purchasers. Refrigerator advertisements appeal to "good husbands" to give their wives a "white" New Year's gift, emphasizing the convenience of paying in installments.²

On the other hand, in the 1990s, kitchen technologies began to diversify significantly with the introduction of small kitchen appliances, such as food processors or blenders. From the moment they became available, small appliances were often marketed as ideal gifts for mothers. The Mother's Day theme became a widely used marketing strategy, framing these devices as considerate gifts for women by emphasizing their practicality, ease of use, and capacity to alleviate household burdens. It was only in the 2010s that a brand challenged this trend, influenced by criticisms regarding gender equality, by running ads that emphasized they do not sell small appliances on Mother's Day.³ On the other hand, due to their relatively low prices, small kitchen appliances are among the home technologies that women can choose and purchase independently within their budget.

Cultural and ritual significance shapes how women engage with kitchen technologies. However, a visceral approach to understanding these interactions remains underexplored globally and in the Turkish context, where tradition and modernity intersect. We seek to address this gap by examining how women's embodied practices challenge dominant

¹ Demirel ve buzdolabı [Demirel and Refrigerator] *Cumhuriyet*, 14.07.1969, p. 7.

² 1983'ün son üç günü herkes ayrı hesap yapıyor [Everyone is making separate calculations for the last three days of 1983], *Cumhuriyet*, 29.12.1983, p. 1.

³ Vestel, *Instagram*, 11.05.2018, https://www.instagram.com/p/Bio_9gBluFQ/

narratives of progress and efficiency. The following section describes the methodological approach used to explore these dynamics.

1.2 Methodology

We argue that looking at the visceral reactions to small electric appliances can reveal much about how they influence daily life. According to Norman, the visceral level significantly influences the design of everyday objects. Visceral reactions occur quickly and operate entirely below conscious awareness. For designers, these reactions are linked to immediate perceptions, such as the pleasure derived from a smooth, harmonious sound or the discomfort of fingernails scraping against a rough surface. At this level, style is crucial, and elements like appearance, sound, texture, and smell all trigger visceral responses. This aspect of design does not concern usability or functionality; instead, it is about attracting or repelling users. Skilled designers use their aesthetic sensibilities to evoke these immediate reactions [29]. In our study, “visceral” also involves sensory responses that may not always be immediate or quick but are deeply tied to embodied experiences and beliefs in everyday practices.

Regarding cooking and migration, Longhurst, Johnston, and Ho argue that a “visceral approach” can significantly benefit migration studies and social policy. By “visceral,” they refer to “the sensations, moods, and ways of being that emerge from our sensory engagement with the material and discursive environments in which we live” [30]. This approach enables them to understand the senses of place, time, and movement in women’s daily encounters with food and cooking. We argue that this approach also offers valuable insights into women’s daily interactions with technology, moving beyond merely considering its functions and instrumental benefits.

Brady likewise highlights the importance of researching cooking through a visceral approach in her article, “*Cooking as Inquiry*” [31], where she combines it with autoethnography. In her work, the researcher’s body becomes the site of investigation. Our research, however, focuses on how women describe their senses and bodily experiences as they adopt or reject kitchen technologies while cooking.

These studies examine visceral aspects in relation to the body through a more explicit focus on food and eating. By contrast, we aim to explore the dynamics of technology use through women’s narratives about their sensory engagements. While sensory approaches often focus on the five senses [32, 33] and the conscious dimensions of sensory experiences—sometimes referred to as sensory awareness [33]—the visceral approach emphasizes the immediate, affective, and often unconscious dimensions of these encounters. In this study, we prioritize the visceral to uncover the instinctive, embodied, and affective dimensions of women’s interactions with kitchen technologies. However, we do not neglect sensory perceptions and understand the visceral as an embodied form of knowledge creation, rooted in how women articulate their sensory encounters with the material world. We refer to “visceral” as the deeper, instinctive, and sometimes unconscious reactions that arise from sensory inputs. It captures the gut-level responses and includes the bodily and sensory reactions to everyday objects and actions—such as the unease women associate with electricity or the belief that touching and shaping food with one’s hands gives it a unique taste.

We employ purposive sampling from 100 in-depth interviews, selecting 27 for analysis. Purposive sampling is a method that selects participants based on their relevance to the research question. Instead of aiming for a representative sample, researchers choose individuals who can provide valuable insights or experiences related to the topic of interest. This approach allows for a diverse range of perspectives, helping to deepen the understanding of the research issue while emphasizing the quality and richness of the data collected [21, 22]. Focusing on the use of kitchen technologies, we chose interviews that addressed small electric kitchen appliances while excluding those related to larger machines such as refrigerators, ovens, dishwashers, and cleaning devices like washing machines and vacuum cleaners. Our attention focuses on food processors, choppers, blenders, mixers, grinders, and coffee machines. Additionally, we examine interviewees’ perspectives on microwave ovens, air fryers, and less common appliances such as yogurt and dough makers. Our purposive sample represents a diverse group of women varying in class, age, cultural capital, and geographic location. However, we refrain from drawing conclusions based on these variables, as the sample size is insufficient to support such associations.

The interviews are conducted between 2022 and 2024 with women from various backgrounds, age groups, and professions. Nine women reside in Istanbul, six in Ankara, six in İzmir, three in Bursa, and three in Adana. Thirteen women hold university degrees, three attended technical school, six completed high school, two attended secondary school,

and three attended primary school. Their ages range from 34 to 65. Pseudonyms are used to protect the anonymity of the interviewees.⁴ After completing the interviews, we visited the participants, who welcomed us into their kitchens and allowed us to take photographs. We observed the kitchen practices of one participant who was hesitant to use electric appliances while kneading dough and another who frequently utilized small kitchen gadgets while cooking. During these visits, we had the opportunity to closely observe the relationships women have with small appliances.

1.3 Kitchen narratives

Vegetables blended by a blender, onions chopped by a chopper, even pastries cooked in an electric oven... Does the taste of food alter with the touch of an electric appliance? Some of our interviewees recognize the advantages of food processors, choppers, blenders, mixers, and microwave ovens. In contrast, others perceive food processors and similar devices as more trouble than they're worth. For example, Maral (58, Istanbul) believes that food processors, choppers, and blenders are inconvenient and often collect dust in the cupboard. For Merve (53, Istanbul), using the food processor, especially disassembling its parts for cleaning, is a labor-intensive chore.

On the other hand, Ela (36, Istanbul) and Sevgi (61, Adana) express dissatisfaction with the traditional method of preparing hummus by hand (see Fig. 1). Achieving the desired smoothness and fine texture of hummus is easier with technology, which not only simplifies the process but also provides a level of consistency and refinement that is difficult to achieve by hand. In Hatay, where hummus is a staple, the food processor is valued for creating a smooth paste with less physical effort, enriching the experience of cooking:

It makes my job easier, it's practical, it's fast. For example, we talked about robots [kitchen robot is food processor in Turkish], we from Hatay make hummus very well. We didn't have such a chance in the past... we would crush it thoroughly on the strainer. Our hands would be ruined. I don't worry about such a thing now... [With the food processor,] it becomes like a fine paste... (Sevgi, 61, Adana)

However, this approach contrasts the views of other participants, who express concerns about the role of electricity in the cooking process and emphasize the importance of human touch, as we will see. For them, cooking adds a personal, tactile connection to the food that technology, in their view, cannot replicate. Hummus, however, remains an exception.

While hummus remains an exception due to the preference for a fine paste (with some interviewees also preferring blenders for convenience), how women perceive the link between cooking and creativity significantly influences their broader engagement with small electric appliances in the kitchen. For many interviewees, keeping the personal creation process visible is essential, as they believe technology should not interfere with the satisfaction of cooking. Cooking is often described as a creative and embodied endeavor. Öykü (39, Ankara) reflects on her love for cooking as a form of self-expression: "...when I feel like cooking, I love it and do it with enthusiasm... Every time they tasted it, I looked into their eyes to see if it tasted good. I guess I love it because it is like a production process, a craft." Öykü seeks approval and appreciation for her cooking. Her comments reveal how cooking becomes a process of personal and creative fulfillment, transforming an everyday task into a meaningful practice.

For Tuğba (45, Izmir), cooking involves a deep connection to the senses, particularly smell. She describes how the aromas of frying onions, cooking vegetables, and meat evoke a sensory experience that is central to the cooking process:

I love that onion, once you fry it, it will smell. You will add the tomato paste, you will go and open a jar of tomatoes, etc. Then, as it cooks slowly, you will get the "awful" smell of vegetables or the smell of beautifully cooked meat, I mean, I love it. (Tuğba, 45, Izmir)

When discussing their sentiments, interviewees emphasized the importance of hand flavor (*el lezzeti*), psychological mood, a sense of proportion, and love. Filiz (65, Izmir) emphasizes the personal and sensual elements she incorporates into her cooking: "I feel like I add something from myself while cooking... I add my love, I add my labor." "Love" is perceived as an intangible ingredient that enhances the food beyond physical technique. Similarly, her reference to "labor" reflects the dedication and effort that transforms cooking into a meaningful and personal act. For these women, cooking extends beyond the functional use of appliances. Ayla (56, Bursa) reflects on her experience with kitchen appliances, particularly the dough maker and air fryer. She resists using them due to a perceived lack of personal involvement and sensory engagement. She notes:

⁴ Written informed consent for publication was obtained from all the participants.

Fig. 1 Ela (36, İstanbul) prepares hummus using a food processor. She processes the boiled chickpeas, lemon juice, garlic, tahini, and spices in the food processor



It [dough maker] doesn't do the same job as me... I couldn't get used to it. Now you knead the dough. I get the consistency with my hand... We have a sense of proportion. There are no measurements, no spoons or glasses. It's too watery, should I add some more? (Ayla, 56, Bursa)

Ayla's criticism of the air fryer further underlines her concerns: "Air fryer, pure laziness... You will give your love while roasting the ingredients of the dish... I don't think it gives the same taste." She views the air fryer as a tool that disconnects her from cooking and diminishes the sensory experience. In her view, cooking is more than just food—it

Fig. 2 Güllü (62, İzmir) prefers not to use electrical appliances when kneading dough



is a space for personal expression, tactile involvement, and sensory satisfaction. For her, “love” is a key ingredient in creating a tasteful dish. For that matter, she resists using these tools like dough makers and air fryers.

Like Ayla, Güllü (62, İzmir) also prefers not to use electrical appliances when kneading dough.

When we visited Güllü at her home, she was about to start kneading. Since the kitchen counter was too high for her, she placed all her ingredients on the floor and sat in front of the dough basin. She added salt, yeast, and water to the flour and kneaded the dough with one hand for a long time. She began kneading the dough as she had learned from her mother and aunt during her childhood. She continued kneading until the dough reached the right consistency and stopped sticking to her hands. “I usually prefer to do it by hand (kneading or whisking) ... As if electricity would get into it ... I say, why would electricity get into the food, for example ... It’s like I’m eating electricity.” The phrase “eating electricity” expresses a visceral discomfort, as Güllü imagines the food being polluted by the presence of electricity. It reflects a belief that electricity is unnatural in cooking, making the food feel inhuman or artificial.

Figure 2 shows the stages of the dough Güllü kneaded by hand. She baked bread and other pastries with the help of an electric oven.

Similarly, Aysu (50, Ankara) prefers not to boil tea electrically, saying, “If possible, let it brew on the stove” and according to Deniz (41, Bursa), not only the air fryer but also the electric oven changes the taste of the food: “I don’t like the oven-baked vegetables. The oven spoils their taste. In my opinion, there is definitely a difference in taste between how you boil it in water, seven minutes, nine minutes...” For Deniz, the boiling process is more than just a method—it’s a way to preserve the vegetable’s natural flavor and texture. This highlights their sensory experience of tea-making and cooking, where they believe using electricity affects the taste and, again, feels unnatural in the cooking process.

Gülden (59, İzmir) also stresses her rejection of electric appliances, feeling that only direct interaction with fire can truly bring out the flavor in food. While she acknowledges that technology can make cooking easier, she believes it diminishes the taste. She feels that air fryers, in particular, cater to those who do not prioritize taste. For her, dishes need to be touched by human hands, not mechanical devices, as only human involvement can impart the full depth of flavor. This perspective reflects her embodied experience of cooking, where the human touch is central to the process:

Electric stoves are something I don’t like at all... I still use a gas stove. It [food] needs to see that flame. You can’t make an ember. When you bake in the oven, there is an ember, whereas in an air fryer, I don’t know what happens. In other words, its taste cannot be the same as something cooked in a normal oven.... You know, there are people who eat everything they put in front of them... They don’t seek quality. They do not seek pleasure. Food is not like that for me... What if that hand touches that meatball? In other words, what that device does is what I do with my own hands the way I want... Taste is more important to me. That’s why some technological products don’t work for me. (Gülden, 59, İzmir)

Human touch is seen as fundamentally opposed to the touch of electricity, with the former representing warmth, care, and personal connection, while the latter symbolizes cold, mechanical efficiency. This contrast highlights a tension between the embodied, sensory experience of cooking and the impersonal, technological influence of modern appliances. Elvan (61, Adana), on the other hand, believes that not only hand flavor but also care for food, constant attention, and hands-on involvement are essential for producing delicious food. For her, these practices are central to the process, evoking a visceral connection to the act of cooking:

...Of course, the old-fashioned, hand-made things are more beautiful. For example, I like chopping onions by hand more. When I want to make a lahmacun⁵ or something... I prefer chopping it by hand... Well, as they say, my mother and father’s way... I prefer to chop them on the board, I love them that way, so you can touch it with your hand, it’s delicious. For example, I don’t want to leave food in the kitchen while it’s cooking. I don’t want to sit down. I’ll take care of it. It is not like I put the pot in the pressure cooker, then leave it. No, I have to be there, I’ll take its foam. (Elvan, 61, Adana)

Elvan has to show constant attention to the food, treating it not just as a task but as a process that demands her entire presence. Her involvement goes beyond the physical act of cooking; it is about maintaining a connection with the food. She ensures that the food is prepared with care. Similar to Elvan (61, Ankara), Elmas (45, Istanbul) and Nevin (58, Bursa) also emphasize how using electric appliances can disrupt this tactile experience, particularly when chopping herbs. They believe that parsley and basil lose their texture when chopped with an electric chopper. While these reactions seem to have a scientific basis, they are also visceral because they reflect the immediate sensory discomfort of losing the fresh, tactile quality of the herbs.

Alternatively, Semiha (63, İzmir) sees technology as her competitor. She contends that the precision of her handiwork is equivalent to that of a food processor. She enjoys hand-chopping, finding it therapeutic and deeply connected to the physical act of cooking. However, for multi-step tasks such as chopping and mixing, she prefers to use the food processor, balancing her visceral enjoyment with the convenience of technology.

Home is portrayed as a nurturing space where warmth, care, and personal connection are central. In contrast, technology, emphasizing efficiency and practicality, is perceived as soulless and impersonal. According to Sevinç (54, Adana), “if everything becomes practical, it wouldn’t make any sense, the house will lose its warmth.” She expresses concern that an overemphasis on practicality would take away the home’s sensory depth, transforming it from a place of comfort and

⁵ It is a type of pide made by placing minced meat, parsley, onion, garlic, black pepper, and red pepper on rolled-out dough. After placing the ingredients on the dough, it is baked in a stone oven.

personal expression into something sterile and mechanical. Aysu (50, Ankara) also discusses the embodied aspects of cooking. She notes that when her state of being changes, the taste of food changes accordingly:

Experience and taste definitely go hand in hand. Because at that moment, I am kneading the same dough to the same extent. One day it rises so beautifully. Last time I kneaded, for example, I was grumbling at someone. I said this dough probably won't rise... It didn't swell, I felt it. However, I also measured the yeast and the temperature. Room temperature. But no, it didn't rise. That's why I believe it's the hand or the energy that a person puts into it. If you are positive, if you think well... if you grumble, no good comes from the food anyway. No good comes from the dough you knead. Therefore, a dough maker is unnecessary. (Aysu, 50, Ankara)

In this context, science and visceral aspects stand in total contrast. While scientific factors such as room temperature, precise measurements of ingredients, and the consistency of the kneading process may all remain stable, the visceral experience of cooking introduces a variable that science cannot account for. The belief is that even if every technical aspect of the process is carefully controlled, the dough may not rise or behave as expected if the cook's internal state is unsettled. Similar to how "love" is added as an intangible ingredient, the cook's mood—whether positive or negative—also influences the taste and shape of the dish.

When contemplating the future, Melike (55, Istanbul), Filiz (65, İzmir), and Gülden (59, İzmir) oppose the idea of robots entering their private spaces, viewing them as impersonal machines that disrupt the intimate experience of home life and cooking. While Melike (55, Istanbul) considers most kitchen appliances, including the microwave oven, indispensable despite their high electricity consumption, she hesitates to delegate cooking responsibilities to machines. She emphasizes that cooking is her domain, where she fosters a connection to the food through taste and personality. Similarly, Filiz (65, İzmir) explains, "Because it's not a soul..." stressing that cooking is an embodied process requiring more than mechanical function—it demands human touch and presence to bring out the full depth of taste and meaning. Technology, on the other hand, is viewed as incapable of replicating "the soul" in cooking. Gülden (59, İzmir) shares a similar perspective regarding the role of robots in the future:

So, as human beings, I prefer to live as a human... Robots should not invade our lives... In technology, in the automotive industry, okay, I understand factories, but they should not enter homes... when emotion is absent, everything is lacking. That's my belief... even when you do housework, your emotions, both your happiness and unhappiness, are transferred there. So even while cooking, you end up with tasteless food... (Gülden, 59, İzmir)

Like Aysu, Gülden believes visceral qualities, often overlooked by purely scientific approaches, are essential to successful cooking. Her mood—whether happy or unhappy—plays a crucial role. As our interviewees state, when robots—viewed as machines without soul or human presence—are introduced into the cooking process, the result is a soulless act of creation. The food produced this way risks lacking the visceral depth humans bring to their craft, making it tasteless, as Gülden points out.

While the idea of robots disrupting the intimate experience of cooking is met with resistance, this sentiment extends to other kitchen technologies as well. Cemre (48, Ankara) prefers making coffee in a mocha pot, disliking the coffee machine. For her, making coffee is not just about the end product but a ritual in the kitchen that offers a sensory experience, providing women with an opportunity to socialize. Giray (41, Istanbul) similarly argues that simplifying tasks and saving time disrupts these kitchen rituals, rendering them meaningless. For her, the kitchen is a hub of social interaction, and technology has the potential to undermine this vital aspect of the cooking process:

Making coffee is like a ceremony - coffee in a cone, for example, so a coffee machine is not something exciting. Turkish coffee machines seem shameful to me because coffee making is a ceremony, and that's it. You're eliminating that ceremony. You chat while brewing coffee. Otherwise, what's the point? (Giray, 41, Istanbul)

The rejection of the machine as "shameful" reflects a visceral resistance to the loss of tradition, sensory experience, and cultural meaning in the ritual. This highlights the tension between convenience and the depth of embodied, meaningful practices in domestic life. Canan (42, İzmir) also stresses the importance of socializing in the kitchen while making Turkish coffee: "I have to make my own coffee. While I'm doing that, I have to engage in conversation (*iki çift lafın belini kirmalıyım*), I'll bring my friend to the kitchen, while I'm brewing it [coffee pot]... we chat girl to girl."

According to the interviewees, while coffee machines offer practical benefits by saving time and labor, they diminish opportunities for socialization in the kitchen. The time once spent chatting while waiting for coffee to brew is now lost, as the process has become more efficient but less communal. This perspective is especially true for Turkish coffee, where the ritual of preparation traditionally invites conversation and connection among friends. As Giray notes, this shift

changes not just the social aspect but also the sensory experience of coffee-making, which was once closely linked to brewing and the anticipation of shared moments.

When examining how and why women adopt or resist the daily use of technology in their kitchens, visceral aspects play a significant role in their narratives, perceptions, and experiences. In these interviews, technology is generally seen as antithetical to taste—not through rational arguments but visceral reactions. The loss of human involvement and learned practices is deeply felt, emphasizing the perceived disconnect between technology and the deeper satisfaction that cooking provides. Women describe electric appliances or machines as soulless, indifferent, and insensitive, contrasting this with their visceral connection to home, the kitchen, and cooking. For them, cooking is a craft that involves experimentation, discovery, and creativity, requiring mood, care, human touch, and connection. It is a personal pursuit conducted in a space where women socialize. In contrast, technology is seen as harming all of these elements. It limits creativity, disrupts taste, and removes the chance for social interaction.

2 Conclusion

Technology has always been tied to modernization in Turkey, driving and signaling progress. However, focusing solely on modernity and progress risks neglecting other dynamics. We believe our small, humble sample from Turkish kitchens offers valuable theoretical and methodological insights into gender and technology studies. Our study has two interconnected concluding remarks. First, from a theoretical perspective, we argue that women's embodied knowledge and relationships to kitchen appliances challenge existing scholarship that focuses on progress, efficiency, and benefits. While technology is often viewed through the lens of modernization or functionality, we contend that women's choices are shaped by a deeper, embodied experience of the kitchen. We seek to elaborate on how technology becomes (or fail to become) an integral part of everyday life, experiences, and habits. The embodied experience of cooking transforms technology from a mere tool into an element deeply intertwined with personal and habitual practices. The cook's energy and mood, for instance, influence both the process and the outcome. Women do not reject electric appliances or future machines for their lack of functionality but because they lack the visceral, sensory qualities that cooking represents. Women actively shape technology, not merely as passive recipients of innovation, but by infusing it with visceral meaning and sensory significance. This process occurs within a patriarchal system that often relies on a positivist approach, which emphasizes unquestioning faith in science and technology. In this sense, technology becomes not just a tool but a site of negotiation and empowerment, where women's experiences and visceral responses influence how these technologies are perceived, adapted, and integrated into daily life.

Second, from a methodological perspective, we argue that an often-undervalued visceral approach provides new insights into women's use of technology in particular and gender and technology studies in general. According to Norman, engineers, designers, and other producers often overlook the significance of visceral reactions, viewing them as unimportant [29]. This disregard is also seen in academic studies, where the visceral approach is often neglected. However, for users, these reactions gain renewed importance, shaping how technology is perceived and integrated into daily life, particularly in the kitchen. Gut feeling leads decision-making, as women trust their instincts and sensations when using cooking technologies. In this way, the gut becomes an epistemological tool and this embodied knowledge offers insights beyond measurable facts, challenging positivist views of science.

Finally, we invite scholars to reconsider how embodied experiences shape interactions with technological tools, not just in Turkey but in broader global discussions about their role in domestic spaces. Future studies on gender and technology could benefit from implementing the visceral approach, even if their focus is not on food or cooking. This raises a broader question: As the world becomes increasingly shaped by technological developments such as AI, what drives people to resist or reinterpret new technologies, particularly when these technologies seem to detach users from the embodied, personal connections they value? By addressing such questions, we can better understand the evolving dynamics between technology and human experience, offering more inclusive perspectives that go beyond functional and efficiency-based narratives.

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Availability of data and materials All data generated or analysed during this study are included in this published article and its supplementary information files.

Declarations

Ethics approval and consent to participate This research was conducted under the approval and supervision of Kadir Has University Ethics Committee Board in accordance that the research was carried out following the guidelines of the ethics committee listed in the ethics statement.

Consent for publication Written and oral informed consent for publication was obtained.

Informed consent Informed consent was obtained from all individual participants included in the study.

Competing interests The authors declare no competing interests.

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