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Taking pleasure in distinction: Unlocking specialty coffee preference

Ondrej Mitas
Breda University of Applied Sciences, mitas.o@buas.nl

Danny D. Han
Zuyd University of Applied Sciences, han.d@buas.nl

Belle Struijer
Breda University of Applied Sciences, 152262@buas.nl

See next page for additional authors

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Taking pleasure in distinction: Unlocking specialty coffee preference

Authors

Ondrej Mitas, Danny D. Han, Belle Struijer, Lotte Willems, and Thomas H. Chatwick

Corresponding Author

Ondrej Mitas, Mgr Hopmansstraat 2, 4817JS Breda, Netherlands

Abstract

Specialty coffee, comprising a tenth of the global coffee trade, is distinguished by its strict quality requirements and traceable origins. The diverse flavor profiles of specialty coffee raise demands on providers to serve individual taste preferences. Prior research has not sufficiently explored how to predict customer preferences for specific flavor profiles or how these preferences influence behavioral intentions such as revisiting or recommending a café. This study hypothesized that customer involvement, the *extrinsic factors* of coffee experience, and culinary risk-taking would predict flavor preference, which would in turn affect behavioral intentions. In an experiment involving 47 participants, individuals tasted and evaluated two espresso flavor profiles in a counterbalanced order. Results showed that taking pleasure in buying coffee, an aspect of involvement, significantly predicted preference for a distinctly acidic single-origin flavor profile over a more conventional *blend*. However, factors such as interest in involvement, sensory and service quality aspects of the café experience, and culinary risk-taking in coffee consumption were not significant predictors of coffee preference. Furthermore, there was no significant relationship between coffee preference and the intention to revisit or recommend the establishment, though individual evaluations of each coffee were predictive of these behavioral intentions. These results refine the existing theory linking specialty coffee consumption and consumer behavior, particularly highlighting the role of acidity in flavor preferences. They also confirm the link between the sensory experience of tasting specialty coffee and subsequent behavioral intentions, applicable across diverse flavor profiles.

Keywords

specialty coffee, taste preference, involvement, customer experience, behavioral intentions

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Taking Pleasure in Distinction: Unlocking Specialty Coffee Preference

Ondrej Mitas[1], Danny Han[2], Belle Struijer[3], Lotte Willems[4], and Thomas Hoare Chatwick[5]

Academy for Tourism
Breda University of Applied Sciences, Netherlands
[1]mitas.o@buas.nl
[3]belle.struijer@live.nl
[4]madelieflotte@live.nl

Hotel Management School Maastricht
Zuyd University of Applied Sciences, Netherlands
[2]danny.han@zuyd.nl

Chatwick Coffee Roasters, Netherlands
[5]thomas@chatwickcoffee.nl

Abstract

Specialty coffee, comprising a tenth of the global coffee trade, is distinguished by its strict quality requirements and traceable origins. The diverse flavor profiles of specialty coffee raise demands on providers to serve individual taste preferences. Prior research has not sufficiently explored how to predict customer preferences for specific flavor profiles or how these preferences influence behavioral intentions such as revisiting or recommending a café. This study hypothesized that customer involvement, the *extrinsic factors* of coffee experience, and culinary risk-taking would predict flavor preference, which would in turn affect behavioral intentions. In an experiment involving 47 participants, individuals tasted and evaluated two espresso flavor profiles in a counterbalanced order. Results showed that taking pleasure in buying coffee, an aspect of involvement, significantly predicted preference for a distinctly acidic single-origin flavor profile over a more conventional *blend*. However, factors such as interest in involvement, sensory and service quality aspects of the café experience, and culinary risk-taking in coffee consumption were not significant predictors of coffee preference. Furthermore, there was no significant relationship between coffee preference and the intention to revisit or recommend the establishment, though individual evaluations of each coffee were predictive of these behavioral intentions. These results refine the existing theory linking specialty coffee consumption and consumer behavior, particularly highlighting the role of acidity in flavor preferences. They also confirm the link between the sensory experience of tasting specialty coffee and subsequent behavioral intentions, applicable across diverse flavor profiles.

Keywords: specialty coffee, taste preference, involvement, customer experience, behavioral intentions

Introduction

Approximately 1.5 billion cups of coffee are consumed worldwide daily, with around 10% of these qualifying as specialty coffee (Luttinger & Dicum, 2006). Specialty coffee distinguishes itself by achieving a *cupping score* of 80 or above, a rating that reflects an assessment of bean quality and sensory characteristics by certified tasting professionals (Poltronieri & Rossi, 2016; Worku et al., 2016). In this category of coffee, the "content of the consumption experience includes but is not limited to, high-quality coffees" (Carvalho & Spence, 2019, p. 158). Another defining feature of specialty coffee is its traceability; allowing consumers to know the specific farm or processing station where the coffee was produced, including details about the bean's genetic variety, the altitude where it was grown, and the processing method (Ramirez-Correa et al., 2020). The specialty coffee industry generates substantial volume and is expected to increase (Lannigan, 2020). The emphasis on quality makes specialty coffee a more complex product (Carvalho et al., 2016), catering primarily to those with a sophisticated palate, who are able to recognize and appreciate the difference between commodity and specialty varieties (Samoggia & Riedel, 2018). The demand for specialty coffee is partly driven by its complexity and specific flavor profiles. Yet, given the preferences among even the most experienced coffee drinkers, service providers face challenges in catering to individual tastes.

Specialty coffee is regarded as affordable luxury; a non-essential item that satisfies a consumer's desire for luxury without requiring a large one-time expenditure. Consequently, buying a cup of specialty coffee has a symbolic meaning (Mundel et al., 2017). Many consumers report specialty coffee consumption as an integral part of their lifestyle (Mundel et al., 2017), indicating a growing interest in the coffee's origin, processing methods, extraction techniques, and the variety of beverage options (Ufer et al., 2019). This increasing interest could also be explained by consumers' involvement with coffee and their desire to learn more about the product (Quintão et al., 2017). Morris (2013) observed a shift in coffee's status from a routine product to a premium, symbolic product, emphasizing that "coffee shops are more than just about the coffee, they are important spaces on the urban landscape, and remain important spaces of social connection in modern society" (Ferreira et al., 2021, p. 28). Similarly, Spence and Carvalho (2020) stated that symbolic aspects of the coffee-drinking experience could influence the perceived flavor of the coffee, suggesting that the interplay between the intrinsic qualities of the product and *extrinsic factors* merits further exploration.

Consumer involvement, intrinsic qualities of the coffee, and extrinsic factors like the symbolic value of coffee consumption all affect the experience of drinking specialty coffee. It remains unclear, however, if these elements can predict a consumer's preference for specific flavor profiles, a critical question as the variety of coffee flavors continues to increase. In the current context of specialty coffee, where exotic processing methods at the coffee's origin can lead to unpredictable and unusual flavor profiles, consumers face the risk of tasting flavors they may not enjoy. Thus, it is important to consider individual differences in culinary risk-taking alongside involvement and extrinsic factors as potential predictors of flavor preference. Exploring this issue could yield insights with both theoretical and practical implications. It could enhance current theories on how coffee experiences are formed, which have traditionally focused on the coffee experience, by addressing the increasingly important issue of taste preference. For practitioners, such as specialty cafe managers, these insights could provide valuable indicators for identifying customers who are more likely to seek out distinctive coffee flavors.

This study addressed the gap in understanding how specialty coffee taste preferences. It employed a within-participants experiment to predict customer preferences between two distinct specialty espresso coffees—one markedly more unconventional in flavor. The originality of the study rests in the theoretical application of consumer involvement, extrinsic experience factors, and culinary risk-taking to determine specialty coffee preferences. To our knowledge, these variables have not been previously explored in the context of specialty coffees, a sector that continues to grow yet presents significant challenges. Furthermore, while research on specialty coffee experiences exists, the critical issue of taste preference is missing from the literature. This oversight led to the formulation of the following research questions underpinning this study:

- How do involvement, extrinsic factors of coffee experience, and risk-taking behaviors predict a customer's coffee preference?
- To what extent do consumers' coffee preferences influence their intention to revisit or recommend the establishment?

The results of this experiment offer actionable insights for those in the hospitality industry that serve specialty coffees. The findings extend existing theories on coffee experiences, taste preferences, and culinary risk-taking, laying the groundwork for further research on consumer preferences regarding various beverages and foods.

Literature Review

Consumer Preference of Specialty Coffee

The term specialty coffee is used for coffees that are of high quality and unique in their flavor (Poltronieri & Rossi, 2016; Quintão et al., 2017), based on a cupping score by a certified Q-grader (Worku et al., 2016). Scoring coffee includes a physical assessment of beans and bean defects, and a cup quality assessment, including appearance, texture, flavor profile, and aroma (Poltronieri & Rossi, 2016). These variables are assessed by professional tasters using the Q-grading system, which assigns a weight of 40% to the physical assessment of coffee beans and 60% to the sensory assessment of the resulting beverage (Tolessa et al., 2016). The preparation, roasting, and brewing of specialty coffee are highly demanding. About 10% of all the coffees in the world qualify as specialty coffee (Lannigan, 2020). Chemical spectroscopy studies have identified which compounds are present in greater amounts in specialty coffee than in commodity coffee and are responsible for differences in taste. These findings suggest that chemical analyses may offer objective measurement of the specialty status of coffee in the future (Poltronieri & Rossi, 2016; Tolessa et al., 2016).

According to Kozinets (2002) and Quintão et al. (2017), the popularity of Starbucks created a turning point in consumer awareness of the variety of coffee beverages and coffee consumption as a pleasurable, rather than merely functional hospitality experience. This turning point paved the way for the subsequent growth of specialty coffee. Bookman (2013) described how Starbucks pioneered informing customers about the coffee's country of origin, explaining its flavors, and accordingly charging higher prices for coffee drinks. This information provision makes a larger public aware that different coffees exist and may taste differently, given the popularity of Starbucks across the globe.

It must be noted that in the professional discourse around specialty coffee, Starbucks is generally regarded as a pioneer of the *second wave* of coffee experiences, wherein concerns about the coffee's origin and quality were introduced to consumers, but popular beverages were based on large quantities of milk and flavored syrups added to relatively bitter coffee (Quintão et al., 2017). The enduring contribution of Starbucks to the evolution of coffee hospitality was not the taste nor traceability of coffee, but rather "quality service and products in an enjoyable, standardized environment" (Boaventura et al., 2018, p. 255). The present spearhead of specialty coffee is referred to as the *third wave*, wherein coffee passes ever-higher quality standards, is roasted to accentuate differences rather than similarities between coffees, and is thus often consumed with no sugar and only occasional additions of milk. Traceability is understood as a minimum requirement. Bitterness is limited, and terroir is highlighted using much lighter roasting techniques than those used by Starbucks and other second wave roasters. In this wave, the origin of the beans, the characteristics, and the flavor of the coffee are important (Urwin et al., 2019). Popular coffees in this wave tend to have "a deep, concentrated flavor" (Fischer, 2017, p. 7). This third wave is believed to drive the continued growth of specialty coffee.

Compared to commodity coffee from grocery stores or fast-food chains, specialty coffee is relatively more expensive. To illustrate this price difference, specialty coffee beans (green, i.e., before roasting) once comprised only 17% of American coffee imports by weight, but 40% by sales in USD (Giovannucci, 2001). Consumers are willing to pay more for coffee, sometimes spending as much as US$10-20 per day on specialty espresso (Quintão et al., 2017) though research specifying willingness to pay across markets is lacking (Urwin et al., 2019). Urwin et al. (2019, p. 12) cite a willingness to pay "R30.00 [about US$1.60] or more per cup" in South Africa. Furthermore, coffees served by specialty cafes or sold for home brewing show substantial price variation, due to both desirability and the difficulty of growing certain cultivars.

Consumers may exclusively consume specialty coffee either at cafes or at home, but many do both (Urwin et al., 2019). There are also differences between customers in whether they consistently order the same drink repeatedly and stick to similar flavor profiles, or deliberately experiment with brew methods, recipes, and coffees (Quintão et al., 2017; Urwin et al., 2019). Anecdotally, there appears to be a subgroup of (home) specialty coffee consumers that become deeply involved not only in coffee beverages themselves, but in acquiring, using, and modifying sometimes very expensive coffee-making equipment, including grinders, drippers for filter coffee, and espresso machines. Across this breadth of potential specialty coffee experiences, several studies have emphasized the importance of ritual (Quintão et al., 2017) and sensory pleasure, especially when it results in low-arousal positive emotions (Samoggia & Riedel, 2018).

Consumers of specialty coffee tend to be more interested in the taste characteristics of a specific coffee than traditional coffee drinkers (Ufer et al., 2019). These characteristics can be complex, however, which implies that a range of variables is needed to describe the flavor profile of any single coffee (Worku et al., 2016). Along these lines, all items in Dias et al.'s (2020) hedonic scale to measure a person's flavor preference—appearance, color, odor, texture, taste, after-taste, and overall acceptability—may vary from one specialty coffee to another.

Traore et al. (2018) studied consumers' preferences in specialty coffee and the influence of "flavors, aromas, body characteristics, mouthfeel, and aftertaste" on the quality and the price (p. 350). They found that the preferred aromas and flavors for specialty coffee are "fruity, floral,

sweet, spice, and sour acid" (p. 364). Interestingly, Fischer (2017) stated that customers often ask baristas for a coffee with little to no acidity. However, Fischer (2017) nuanced this by explaining that most customers are looking for a balanced flavor, in which acidity is present but not dominant. Acidity is "a key component" (p. 15) of coffee, and specialty coffees are relatively higher in acidity (Fischer, 2017). The flavor of specialty coffee is complex and can also be sweet or bitter (Li et al, 2019), with the presence or dominance of acidity being the clearest trait distinguishing one specialty coffee from another. Thus, we assert that the acidity of a coffee's flavor profile is its crucial mark of distinction, but to what extent various customers prefer acidity is unknown.

Given that there are no set flavors that everybody likes, including the preferred level of acidity, it has been difficult to predict consumers' coffee preferences, especially in terms of acidity. This is not only a substantial gap in theoretical understanding of consumers' coffee experiences, but a day-to-day problem for specialty coffee roasters and baristas. For hospitality businesses offering specialty coffees, the complex and diverse characteristics of specialty coffees make it a challenging product to manage and serve within consumers' experiences. Our theoretical framework draws on the idea that, as acidity in coffee flavor profile is a more *radical*, and newer take on coffee, would appeal to more involved and risk-taking consumers, and would also be subject to extrinsic factors of the cafe. The resulting preference, as well as *taste evaluation*, would then influence behavioral intentions toward the cafe. We break this framework down into four main propositions.

Hypothesis Development

Consumer Involvement in Specialty Coffee

Since regular coffee drinkers tend to know more about coffee, it may be assumed that this group is more invested in their coffee consumption choices (Samoggia & Riedel, 2018). Regular coffee drinkers with some knowledge of coffee tend to prefer relatively higher-quality coffee in general (Samoggia & Riedel, 2018). However, both knowledge about and interest in coffee can vary even among specialty coffee consumers. Involvement has been defined as the interest and excitement a person has towards a product (Kim et al., 2016). Consumers highly involved with coffee are interested in knowing about the origins of the coffee they are drinking, invested in coffee preparation at home, and curious or explorative in their coffee purchasing choices. Thus, existing knowledge of involvement would suggest that more involved customers would prefer a more acidic flavor profile, but this has not been studied empirically.

In line with this distinction, Hung (2012) revealed two types of coffee consumers: a pursuing profession type and a pursuing comfort type. The pursuing profession type attaches great value to information and the quality of the coffee, whereas the pursuing comfort type focuses more on the atmosphere and convenience. These two types have been stereotypically marketed to by third wave and second wave cafes respectively. According to Charassangraungrung (2018), highly involved coffee consumers have also been discriminating in their choices of cafes and machines for home use. Urwin et al. (2019) further found that specialty consumers tend to consume coffee both at home and in cafes, and they welcome the exploration of brew methods in both settings. Furthermore, both studies found that the quality and the characteristics of the coffee beans used in preparing drinks were considered as most important by involved consumers.

This interest, or involvement with coffee, was assumed to influence the ability that one must detect and perhaps appreciate certain characteristics in its flavor (Quintão et al., 2017; Ufer et al., 2019). It remains unclear whether the involvement of these coffee drinkers can go beyond taste discernment abilities and influence preferences for flavor profiles (Ufer et al., 2019). Thus, the link between involvement and flavor preference remains a gap in the theoretical understanding of specialty coffee consumers' taste preferences. However, since highly involved consumers tend to know more about the characteristics and flavor of coffee, we hypothesize that involvement will predict preference (Fischer, 2017; Urwin et al., 2019):

- H1. The consumer's level of involvement with specialty coffee predicts their coffee preference.

Extrinsic Factors in Specialty Coffee Preference

Next to involvement, the experience around the coffee itself may also predict coffee preference (Spence & Carvalho, 2020; Zhong & Ryu, 2010). Spence and Carvalho (2020) argued that coffee experiences influence a customer's taste and menu choice. Spence (2017) also revealed that the environment of the cafe may influence the coffee-drinking experience. Factors contributing to the coffee-drinking experience were divided into coffee intrinsic factors and coffee extrinsic factors (Spence & Carvalho, 2020). The atmosphere of a cafe is based on extrinsic factors, such as the setting, interior decor, and human interaction. This creates a multisensory experience for consumers which Spence and Carvalho (2020) referred to as *atmospherics*. Sathish and Venkatesakumar (2011) asserted that "the atmospherics play a vital role in making the customers stay for a longer time in the café, thereby increasing their impulse purchases, resulting in profits" (p. 9), highlighting the importance of including atmospherics when investigating the evaluation of taste (Lannigan, 2020). Carvalho et al. (2016) emphasized the value of a barista's communication about the quality of the coffee, as face-to-face encounters with baristas help consumers taste specific flavors. The role of the barista was thus not only regarded as educational, but influential in the shaping of flavors. These findings undergird the importance of atmospherics when investigating taste (Lannigan, 2020).

Some scholars have even posited the phenomenon of collective taste, which can shape the taste of consumers towards a taste profile that is linked to status or identity within a given subculture (Allen & Germov, 2011; Quintão & Brito, 2015). For instance, the description of acidity as *fruity* or *juicy* in third wave specialty coffee has greatly increased demand for coffees and roasting approaches that produce strongly acidic flavor profiles. Acidity has become part of a positively evaluated collective taste.

Tarigan et al. (2020) suggested that the physical environment also has a positive influence on customer satisfaction. This was further supported by Kim et al. (2016) showing that there is a relationship between the environment, evocation, and ratings of coffee samples. These ratings varied in different situational conditions, including different types of environments. Besides atmospherics, the environment comprises background music, lighting, and smell. The smell was argued to be especially important for cafes, as the scent of coffee was generally considered pleasant (Ayabe-Kanamura et al., 1998) and congruent with drinking coffee. Thus, extrinsic factors were argued to have the capacity to influence taste and preferences (Li et al., 2007; Spence & Carvalho, 2020) and are essential to the experience of specialty coffee as a whole (Boaventura et al., 2018; Nurseto et al., 2023). We posit that these and other extrinsic factors also play a role in determining

preference for certain flavors. However, this effect has not been previously tested, and existing theory is not sufficient to specify in which direction various extrinsic factors might influence preference toward acidity. Therefore, we hypothesize:

- H2. The extrinsic factors of a coffee experience predict a consumer's coffee preference.

Risk-Taking in Specialty Coffee Preference

According to Zhong & Ryu (2010, p. 2), perceived risk is the "anxiety and uncertainty" consumers feel about their choices. They applied measurement of perceived risk to menu choice. Hirschman (1984) argued that consumers differ in the degree of cognition seeking, sensation seeking, and novelty seeking in their purchasing behavior. It seems plausible that personal differences in approaches to food and beverage consumption thus influence preferences for specific flavor profiles. Beyond preferences for specific flavors, culinary risk-taking is a highly relevant individual difference in specialty coffee. Drinking specialty coffee, especially specialty espresso without added ingredients (e.g., milk or sugar) is a substantial culinary risk, as the flavor is highly concentrated and intense, yet varies tremendously from coffee to coffee based on origin, processing, roast profile, and preparation.

Culinary risk-taking is defined as the likelihood of trying unusual and different flavors (Zhong & Ryu, 2010). Zhong and Ryu (2010) revealed in their study of a Chinese restaurant that perceived risk-taking was a significant predictor of menu choice. More specifically, participants who were more willing to take risks also tried more menu options in the past (Zhong & Ryu, 2010). Therefore, it was recommended to reduce consumers' perceived risk-taking by educating them about novel choices before a decision. This would help them to be less cautious and possibly more satisfied with the choices made. Their findings could also be interpreted to suggest that customers who take more culinary risks are more open and perhaps more habituated to unusual or dramatic flavors, such as acidity in coffee. However, the outcomes of risk-taking may differ in specialty coffee, as a beverage is generally smaller and less expensive than a main course at a restaurant, while the flavors in espresso are more concentrated. Thus, we hypothesize:

- H3. The consumer's willingness to take culinary risks in coffee predicts their coffee preference.

Intent to Revisit and Recommend Coffee

Intention to revisit and intention to recommend are two variables frequently investigated in the hospitality context as indicators for future behavioral intentions (Assaker, 2020). Intention to revisit refers to how willing a consumer is to visit an establishment again. A customer's intent to revisit provides an indication of customer satisfaction related to past visits (Cakici et al., 2019). Nadiri and Gunay (2013) examined how the intention to revisit a cafe was influenced by experiential value and concluded that customer satisfaction was related to post-purchase behavior. On the other hand, returning to a cafe can also be a matter of convenience and habit. While this might be less likely in specialty coffee, where prices are higher and beverage choices more specific, the link between how a coffee tastes and whether than consumer intends to return nevertheless merits examination.

Intent to recommend is understood as the willingness of a consumer to recommend an experience, such as visiting a specific cafe, to friends or colleagues (Kim et al., 2009; Nadiri & Gunay, 2013).

Several elements can influence the intent to recommend in cafes, for instance, the interaction between the barista and the consumer, the price of the coffee, and the service provided (Nadiri & Gunay, 2013). Similar to the intention to revisit, the intention to recommend was argued to be a result of past customer satisfaction, reflecting the quality or value of an experience overall (Kim et al., 2009; Nadiri & Gunay, 2013). Opoku et al. (2022) found in their study that the intention to revisit and recommend may be positively influenced by a customer's tasting experience. Since coffee preference is based on this tasting experience, we argue that consumers may associate a specific taste profile with each cafe, even if that cafe has other types of coffee available, and are thus more loyal if that associated taste profile is more to their liking. Therefore, we hypothesize that:

- H4a. The consumer's coffee preference is related to their intention to revisit.
- H4b. The consumer's coffee preference is related to their intention to recommend.
- H5a. The consumer's coffee evaluation as a whole is related to their intention to revisit.
- H5b. The consumer's coffee evaluation as a whole is related to their intention to recommend.

The Present Study

The reviewed literature suggests that involvement with coffee, extrinsic factors of the coffee experience, and risk-taking may predict consumers' specialty coffee preference, more specifically a preference for pronounced acidity in its flavor profile. In the present study, we conducted an experiment in the form of an espresso tasting, in which participants were served espressos based on two different specialty coffees since at least two options are required to form a preference (Dias et al., 2020; Miller, 2005). As the literature suggests a relationship between coffee preference, intention to revisit, and intention to recommend, we examined these variables through a questionnaire immediately following the espresso tasting.

Methods

Research Design

The study used a mixed experimental design wherein exogenous, pre-existing between-participant individual differences (involvement, extrinsic factors, and willingness to take culinary risk) were used to predict within-participant preference between one of two coffees served to participants. The two coffees served to each participant varied dramatically in acidity in the flavor profile. Serving all participants both coffees in counterbalanced order comprises a two-condition, within-participant experimental design (Charness et al., 2012). Preference, and evaluation of each of the two coffees, was in turn used to predict between-participant intention to revisit and intention to recommend.

We designed the study to optimize the ecological validity of the findings, thus situating the data collection in the most naturalistic specialty coffee consumption setting possible: a locally owned specialty roaster and cafe. Previous studies allege that specialty coffee consumers visit primarily locally owned cafes (Ferreira et al., 2021; Mundel et al., 2017). Chatwick Coffee Roasters (henceforth Chatwick), a specialty cafe in Breda, the Netherlands, was selected for this study. Chatwick sells fresh pastries and coffees that are brewed from specialty coffee beans roasted on-site. It is considered a small-sized cafe, with about 25 seats indoors and 10 outdoors. The context

of the Netherlands is meaningful for this research, as it is often said to be one of the world's most intensively coffee-consuming countries (second only to Luxemburg in kilograms per capita purchased in 2021; Liedtke, 2022). The country hosts several prominent internationally recognized brands in specialty coffee, such as the Amsterdam Coffee Festival and roasters White Label and Friedhats. The mobile application European Coffee Trip, which serves as a catalog of sorts of specialty cafes, listed 153 specialty cafes in the country as of October 2023. Of these, five are in Breda, including Chatwick.

We used a within-participant experimental research design to manipulate the variable of acidity in the espresso flavor profile. An espresso tasting was organized to allow consumers to evaluate both coffees and indicate their preferences. For a natural coffee consumption setting, it was necessary to meet three important constraints. First, we chose to sell, rather than give away, espresso tastings to customers, to give them a realistic stake in whether they enjoyed each flavor profile or not. Second, we limited the experiment to two flavor profiles, so that each flavor profile could be experienced in the context of a complete, menu-worthy beverage while retaining the explanatory power of a within-participants design. Because creating the tastings for participants had to be carried out by one or two baristas during all opening hours of the cafe, even during fairly busy occasions when diverse other drinks had to be prepared, the tasting needed to remain reasonably simple to prepare. There were also sensory and health reasons to limit the tasting to two coffees. Drinking more than two espressos in succession overwhelms sensory discernment, due to the intensity of flavors therein. Furthermore, genetic variations in sensitivity to caffeine mean that some customers limit or spread out their caffeine intake (Samoggia & Riedel, 2018), and would thus not be able to complete the experiment if drinking three or more espressos was required. While formal evaluation of coffee (*cupping*) is therefore carried out on rather dilute brewed coffee, detecting differences in flavor profiles in such dilute coffee requires professional training. We thus chose espresso rather than filter coffee, as the intensity of espresso makes flavor differences more pronounced (Angeloni et al., 2021).

Stimulus Material

The two coffees which each participant tasted are henceforth referred to as the blend (low acidity in the flavor profile) and the *Colombia* (high acidity in the flavor profile). The blend contained 50% of natural processed beans from Brazil and 50% of washed processed beans from Ethiopia. Both beans had a cupping score of 83 and were from the 2022 harvest. The taste of this blend was described as sweet, floral, balanced, and accessible with taste notes of "vanilla, milk chocolate, caramel, and dried fruits" (Chatwick Specialty Coffee Roasters & Bakery, n.d., para. 1). The Colombia was a Castillo variety from the 2021 crop at the Bella Vista farm. This washed process coffee earned a cupping score of 85.75, and its taste was described as "clean, silky, balanced, juicy, bright, clean" with taste notes of "citrus, nougat and apple" (Don Edgar Coffee Company, 2022, para. 1). According to the Don Edgar Coffee Company (2022), this coffee scored high on aroma, flavor, and acidity. The choice for the blend and Colombia coffees for this experiment reflects two important aspects of specialty coffee: similarly high quality, and dramatically contrasting acidity in the flavor profile. While the blend has some acidity that is not generally present in mass-market, dark-roasted, commodity coffee, its acidity is mild and balanced by sweet and nutty notes. The acidity of Colombia, on the other hand, is pronounced and dominates the flavor profile from start to finish. The two coffees were served as single shots of espresso (16 grams of beverage from nine grams of ground coffee) in counterbalanced order.

Sample

The sample consisted of Chatwick customers who ordered the espresso tasting and were willing to fill out the questionnaire. This comprised a self-selected convenience sample. The questionnaire was opened and started by 55 participants, of which 47 completed the questionnaire far enough to be useful for analysis. Of these 47, two did not fill out the behavioral intention items and were omitted from analyses of those items only. Participants' average age was 34 (*SD* = 12.74).

Measures

A questionnaire was created to measure participants' responses to the espresso tasting. The questionnaire contained 42 items and took around six minutes to complete. It was developed in English and translated to Dutch with back-translation to ensure participants could answer in their preferred language. The tasting order of the two espressos differed per day to counterbalance potential order effects. The questionnaire was constructed with items derived from the literature. Pre-existing measurement scales were used to support the validity and reliability of the items and to ensure consistency between items (So et al., 2016). Items were adapted to fit the context of the study where needed.

Specialty Coffee Preference

Participants were asked to judge the two espressos in each tasting, labeled A and B, on seven attributes on a five-point hedonic scale from strongly dislike to strongly like. The seven attributes were appearance, color, odor, texture, taste, after-taste, and overall acceptability (Dias et al., 2020). An average of these items comprised the taste evaluation of each of the two espressos. The variable of taste preference simply represented which of the two espressos was evaluated more positively. Thus, taste preference had two levels: the blend was preferred if its evaluation was highest, otherwise the Colombia was preferred if its evaluation was highest. This represents a within-participant experimental manipulation with a mutually exclusive outcome (Charness et al., 2012).

Involvement

Three dimensions of involvement were measured, namely interest, pleasure, and sign. The interest dimension measured a person's enthusiasm towards coffee, while pleasure referred to the enjoyment derived from purchasing coffee. The sign provides a measurement of how much coffee matches a person's identity and lifestyle. The participants judged statements on a five-point Likert scale from strongly disagree to strongly agree (Kapferer & Laurent, 1993).

Extrinsic Factors of Coffee Experience

We measured two extrinsic factors of coffee experience, namely sense and service quality, on a five-point Likert scale (Nadiri & Gunay, 2013). These factors define experience as an individual's perception of external stimuli. Sense and service quality refer to the sets of stimuli, such as music and friendliness of staff, respectively, that are most prominent across all potential participants in a cafe setting.

Risk-Taking

We used four items based on Zhong & Ryu (2010), of which two were positively worded (e.g., *I would like to try any new coffee once*) and two were reversed (e.g., *I find it safer to order coffees I am familiar with*). Participants were asked to agree or disagree with these four statements on a five-point Likert-type scale (Zhong & Ryu, 2010).

Behavioral Intentions

Participants were asked to indicate their intention to recommend and intention to revisit with net promoter score-type 11-point scale items from not at all likely to extremely likely (Reichheld, 2003).

Data Collection

The data collection took place for about three weeks from 20 October 2022 until 12 November 2022. There was promotional material for the experiment at Chatwick, such as posters and menu cards. These promotional materials were created using Cousins et al.'s (2011) suggestions on menu choice. Customers of Chatwick were made aware of the fact that they could order an espresso tasting and participate in the experiment. Furthermore, a photo and a short description of the experiment were posted on Chatwick's Instagram channel. In addition, the staff of Chatwick informed customers about the experiment when ordering an espresso. The espresso tasting was available for five euros or discounted to eight euros per two tastings when ordered simultaneously. When customers would order the espresso tasting, the two espressos were presented on a small tray together with water. There was a sheet on the tray to make clear which espresso was A and which espresso was B.

The participants were instructed to taste espresso A and fill out the questions about that specific drink, then drink water and repeat the same with espresso B. An overview of which espresso was A and which was B on each day was created to keep track of the evaluations. Furthermore, the staff of Chatwick was instructed about the espresso tasting to facilitate the data collection and the serving of correct espressos. All participant data were collected and handled anonymously. Customers who ordered the tasting were provided with a QR code which enabled them to participate if they wished. The questionnaire started with the information statement.

Data collection continued for a full month to facilitate enough responses. Declining participation during the last week of data collection convinced us that most Chatwick clients who drank espresso and were willing to participate in research had already participated. While a larger sample would have afforded us the statistical power to detect smaller between-participant effects among variables, it would have required either extending data collection to several months or moving the data collection to another setting with another customer base, such as a school cafeteria. Because the setting of the research directly affects one of the key independent variables, extrinsic factors, changing the setting during the data collection was deemed unacceptable. A power analysis after the fact demonstrated that, at the usual alpha level of .05 and power of .80, the sample size was sufficient to detect a medium effect related to each and every hypothesis.

Analysis

Before analyzing the data, coded items were reversed as necessary. Categorical coffee preference variables were established based on the seven preference attributes of each coffee. We chose to use the mean of all liking attributes instead of using the overall acceptability item since many participants gave both espressos the same score for overall acceptability. Thus, a discriminating preference between the two coffees was more readily inferred using a mean of all preference attributes. Cronbach's alpha was used to investigate the internal consistency of the scales used (Drost, 2011; Field, 2018; Heale & Twycross, 2015), following analyses on frequencies and descriptives of the coffee preference variables. Subsequently, Pearson bivariate correlation tests were conducted to check relationships between continuous variables (Field, 2018; Heale & Twycross, 2015; Taylor, 1990).

To test H1, H2, and H3, we conducted a logistic regression to determine whether each continuous background variable could predict the categorical variable of taste preference (Peng et al., 2002; Sperandei, 2014). In our logistic regression model, the involvement dimensions of interest, pleasure, and sign; dimensions of service quality and sense, which formed the extrinsic factors of the coffee experience; and risk-taking were entered as independent variables. Assuming an even distribution of coffee preference, our sample was sufficient to detect an odds ratio of 2.8 or greater, a small (Chen et al., 2010) to medium (Cohen, 1988) effect. To test H4, an independent sample t-test was performed. This analysis was used as our hypothesis predicted that the categorical variable, taste preference, influenced a continuous variable, behavioral intentions. Although the independent sample *t*-test is a between-subjects design test (Gerald, 2018; Lakens, 2013), Charness et al. (2012) suggested that it is possible to do a within-participant design experiment and analyze the data using a between-subject design test in cases of mutually exclusive treatment outcomes, as applicable to our study. Our sample size was sufficient to detect a medium (Cohen's $d = 0.58$) effect. Finally, as H5 concerned bivariate relationships between the evaluation of each coffee and behavioral intentions, we used Pearson correlations to test this hypothesis. Our sample size was sufficient to detect a correlation coefficient of .39 or greater, a moderate correlation (Cohen, 1988).

Results

Reliability Analysis

We analyzed reliability using Cronbach's alpha (Table 1). The outcomes of all reliability analyses are considered acceptable, except for the dimension interest within involvement, which is borderline ($\alpha = .655$) (Field, 2018; Heale & Twycross, 2015). The results of the KMO test (KMO = 0.581), a test of assumptions for exploratory factor analysis, are considered miserable (Field, 2018). Therefore, we used the literature on which we based the measures, rather than an exploratory factor analysis, to determine which items to average into subscale indices.

Descriptive Statistics

The descriptive statistics of the coffee preference variables showed whether respondents preferred the blend or the Colombia per attribute (Table 2). In general, both coffees were evaluated mildly positively, usually between 3 (the scale midpoint) and 4. On each attribute, several participants scored both coffees equally. Thus, percentages of preference on each attribute do not add up to

100%. Almost half of the participants (48.9%) had no preference for the color of the coffees, but only six (12.8%) participants had no preference when evaluating the taste of the two different coffees. The only attribute on which the blend was preferred was the aftertaste, wherein the blend was preferred by 42.6% and Colombia only by 29.8%. The biggest difference in preference can be found in the evaluation of the taste, wherein Colombia was preferred by 51.5% of the participants, and the blend by 36.2%.

Table 1. Reliability Analysis and Descriptive Statistics of the Variables

Variable	*α*	*SD*	*M*
Specialty coffee preference			
Coffee preference blend	.858	.758	3.71
Coffee preference Colombia	.808	.734	3.77
Involvement			
Interest	.655	.604	4.34
Pleasure	.704	.729	3.98
Sign	.806	.842	3.35
Extrinsic Factors of Coffee Experience			
Sense	.723	.521	4.16
Service quality	.776	.591	4.38
Risk-taking	.775	.959	3.49
Behavioral intention			
Intention to revisit		1.80	8.49
Intention to recommend		1.63	8.60

Table 2. Descriptive Statistics and Frequencies of Coffee Preference

Variable	*SD*	*M*	Frequency Preference	%
Appearance blend	1.08	3.87	10	21.3
Appearance Colombia	1.05	4.23	21	44.7
Appearance no preference	-	-	16	34.0
Color blend	0.803	4.08	12	25.5
Color Colombia	0.918	4.06	12	25.5
Color no preference	-	-	23	48.9
Odor blend	0.925	3.72	14	29.8
Odor Colombia	0.976	3.70	15	31.9
Odor no preference	-	-	18	38.3
Texture blend	0.923	3.87	16	34.0
Texture Colombia	0.807	3.85	16	34.0
Texture no preference	-	-	15	31.9
Taste blend	1.22	3.32	17	36.2
Taste Colombia	1.32	3.51	24	51.1
Taste no preference	-	-	6	12.8
After-taste blend	1.19	3.53	20	42.6
After-taste Colombia	1.17	3.42	14	29.8
After-taste no preference	-	-	13	27.7
Overall acceptability blend	1.02	3.57	16	34.0
Overall acceptability Colombia	1.21	3.62	20	42.6
Overall acceptability no preference	-	-	11	23.4

Hypotheses 1 Through 3: Predicting Preference

To test the prediction of coffee preference, we performed six logistic regression analyses with interest, pleasure, sign, sense, service quality, and risk-taking as predictors and coffee preference as the outcome variable (see Table 3). The analyses showed a significant relationship between pleasure, which is a sub-dimension of involvement, and coffee preference. The odds ratio indicates

that for every point higher on the 5-point scale of taking pleasure in coffee, the odds of preferring Colombia are three times higher. Furthermore, the results show that interest, sign, sense, service quality, and risk-taking did not significantly predict coffee preference. Thus H1, that involvement predicts coffee preference, was partially supported, but only for the involvement dimension of pleasure. The H2, that coffee experience predicts coffee preference, and H3, that risk-taking in menu choice predicts coffee preference, were not supported.

Table 3. Logistic Regression Analysis of Taste Preference

Variable	*β*	*SE*	*Wald*	*Exp(B)*	*Cox & Snell R^2*
Involvement					
Interest	.353	.519	.464	1.424	.010
Pleasure	1.090	.508	4.67*	3.00	.111
Sign	-.068	.358	.036	.934	.001
Extrinsic Factors of Coffee Experience					
Sense	-.022	.600	.001	.978	.000
Service quality	-.466	.568	.675	.627	.016
Risk-taking	.144	.341	.177	1.15	.004

Note. *$p < .05$

Hypotheses 4 and 5: Predicting Behavioral Intentions Based on Preference

To test whether coffee preference influenced behavioral intention to revisit the cafe or to recommend it to others, we used an independent samples *t*-test with participant groupings based on preference. Preference did not significantly affect the intention to revisit ($t_{40.73} = 1.02$, $p = .158$) nor the intention to recommend ($t_{35.53} = .578$, $p = .283$). Therefore, we rejected H4a and H4b, that coffee preference influences intentions to revisit and recommend. These low *t*-values also precluded probing for indirect effects on behavioral intentions of involvement, experience, and risk through coffee preference.

Finally, we used correlations to test whether an evaluation of each coffee was associated with behavioral intentions. All correlations were between .4 and .6 and statistically significant, showing that more positive evaluations of each coffee were associated with higher intentions to revisit and recommend. The association between coffee evaluation and behavioral intentions was slightly higher for Colombia ($r = .509$, $p < .001$ for intent to revisit; $r = .526$, $p < .001$ for intent to recommend) than for the blend ($r = .482$, $p < .001$ for intent to revisit; $r = .422$, $p = .004$ for intent to recommend).

Conclusions and Discussions

A within-participants experiment with two different espressos showed that taking pleasure in buying coffee, a dimension of involvement, significantly predicted preference. Participants who took pleasure in buying coffee had a higher chance of preferring the distinctly acidic single-origin espresso from Colombia over the more conventional blend. Interest and sign within involvement, sense and service quality within the coffee experience, and willingness to take risks in menu choice were not significant predictors of coffee preference. Furthermore, there was no significant relationship between coffee preference the intention to revisit, and the intention to recommend. Evaluation of each coffee on its own did predict the intention to revisit and intention to recommend, however. The findings extend existing knowledge on the relationships between specialty coffee experience and taste. Contrary to common consumer attitudes, acidity in flavor

profile is likely to be a distinction of pleasure among coffee connoisseurs, pointing to luxury rather than risk-taking or extrinsic aspects of the coffee experience. Therefore, the findings suggest that multiple coffees with varying acidity in taste profile should be offered at specialty cafes. Pleasure in buying coffee can be used as a characteristic to predict if customers will enjoy these acidic taste profiles more than conventional coffee taste profiles.

Theoretical Implications

The aim of this research was to test if involvement with coffee, coffee extrinsic factors of the coffee experience, and risk taking would predict consumers' specialty coffee taste preference, and if preference and evaluation would influence behavioral intentions to revisit and recommend. The first hypothesis posited that involvement with coffee could predict preference. The pleasure dimension within involvement was a significant predictor of coffee preference, over and above other involvement dimensions, extrinsic factors of coffee experience, and culinary risk taking. The significant influence of pleasure on preference is in line with Mundel et al. (2017), who showed that buying a coffee is perceived as an affordable luxury, meaning a small present to treat one's self, which has a symbolic meaning and provides a hedonic experience. It is also consistent with Quintão et al.'s (2017) finding that specialty coffee became a valued ritual. We found that the more someone takes pleasure in buying coffee, the higher their chance of preferring the single origin espresso from Colombia, which is high in acidity (Don Edgar Coffee Company, 2022). Therefore, we extend the research of Mundel et al. (2017) and Quintão et al. (2017) which connected pleasure to experiences of specialty coffee in general. We demonstrate that pleasure is uniquely related to a more acidic flavor profile, which is a common but until now under-researched characteristic of the specialty coffee experience. Professional and popular media on specialty coffee has portrayed acidity as potentially pleasurable but *risky* and polarizing, especially for less-experienced coffee drinkers. On the contrary, we found that pleasure, and neither risk nor other involvement dimensions, in coffee, predicted a greater preference for an acidic taste profile. Thus, our findings contribute to the importance of pleasure in buying coffee, not risk or experience as previously believed, to understanding customer preferences in specialty coffee.

This finding, and the higher-rated taste of Colombia, also highlight the importance of terroir and clear, acidic, intense flavor profiles in specialty coffee. Fischer (2017) and Urwin et al. (2019) concluded that involved coffee consumers are knowledgeable about the characteristics of coffee and that they will have a preference. We extend this theoretical proposition in two ways. First, our findings suggest that involved specialty coffee consumers will not only have a preference but that this preference leans toward a more distinct, acidic flavor profile. Accordingly, Ufer et al. (2019) stated that specialty coffee consumers have more interest in particular characteristics of coffee, which were more distinctive and recognizable in Colombia in our experiment. However, our findings are more specific: Colombia was not only more distinctive but specifically more acidic.

Second, our findings imply that distinction may explain how involved coffee consumers arrive at a preference. Interest in specific coffee characteristics and local purchasing is congruent with distinctive, recognizable flavors as experiences that are not available just anywhere. Distinction and terroir in flavor profiles may evoke a sense of scarcity among customers similar to that of rare wines (Van Herpen et al., 2014). Interestingly, within involvement in coffee, interest, and sign were not significant predictors of coffee preference. These sub-dimensions of involvement were

about the interest in coffee and whether the type of coffee a person buys is a reflection of who they are. These were less predictive of preference for a distinctive, acidic coffee than pleasure.

The second hypothesis suggested that extrinsic factors of the coffee experience could predict preference. However, the results indicate that sense and service quality, the dimensions we measured for the coffee experience, were not significant predictors of coffee preference. Even though Spence and Carvalho (2020) demonstrated that the atmospherics influence a consumer's taste in coffee, we found that it does not predict their coffee preference between two different taste profiles. A positive experience of the atmosphere may contribute to a positive taste experience across taste profiles. Accordingly, the atmospherics could have been influential on the liking rates of the espressos in general, since Kim et al. (2016) showed that liking rates may vary in different situational conditions, such as the atmospherics. Our findings extend previous research on coffee atmospherics to suggest that atmospherics may affect coffee taste for various specialty coffees, similarly, making all coffees taste better or worse for example, rather than highlighting specific taste profiles. Thus, appropriate atmospherics within a specialty coffee establishment may be a minimum requirement for a wide range of customers, whatever their taste preferences. As our experiment examined only two different flavor profiles, more research exploring a wider variety of flavor profiles is needed. Future research could also vary atmospherics in which coffee is presented experimentally to clarify these effects.

The third hypothesis suggested that willingness to take risks could predict coffee preference. The risk-taking variable indicated how likely a consumer is to try unusual and different flavors. Consumers who are willing to take risks in menu choices are more likely to have tried more menu options (Zhong & Ryu, 2010). This might lead to the expectation that they may be less surprised, and thus more accepting, of an intensely acidic flavor profile such as that of Colombia. This hypothesis was rejected, however. Willingness to take risks in menu choice does not appear to imply a specific coffee flavor profile preference.

Many consumers stick to familiar menu choices to reduce risks (Hirschman, 1984), which could explain why risk-taking is not a predictor of preference. It is possible that customers leaning toward more distinctive or acidic espresso taste profiles are just as risk averse as more conventional coffee drinkers. However, they may be risk-averse in different ways, such as avoiding dark-roasted or bitter coffees, even when served by specialty cafes. In other words, consumers of specialty espressos may embrace a variety of high-quality coffee flavor profiles as *safe* choices. In contrast, they might see the possibility of low-quality or conventional coffee as a risk they wish to avoid. Accordingly, we posit that not only flavor profile, but overall level of quality may comprise a dimension of risk in specialty coffee consumption. This possibility warrants further research and suggests that what is considered risky or *unfamiliar* to consumers in coffee may be more complex than existing theory suggests (Zhong & Ryu, 2010).

Participants' taste preferences were unrelated to their intentions to revisit and to recommend. Kim et al. (2009), Nadiri and Gunay (2013), and Reichheld (2003) suggested that the intention to revisit and the intention to recommend are a result of customer satisfaction. While Colombia generally scored higher than the blend, these differences were not large enough to drive satisfaction with Chatwick. This could explain why there was no significant relationship between behavioral intentions and coffee preference. Furthermore, a common characteristic of third wave specialty cafes is offering multiple coffee origins, even for espresso. Thus, it may be that customers at cafes

like Chatwick appreciate choice rather than any one specific flavor profile, especially if quality is uniformly high. Accordingly, the evaluation of each coffee was robustly associated with behavioral intentions, supporting our fifth and final hypothesis. This finding extends the well-established connection between product evaluation and behavioral intentions (Zhong & Moon, 2020) to the context of specialty coffee.

Thus, the main theoretical contributions of this study are twofold. First, the connection between pleasure and a distinctive, acidic flavor profile suggests that there may be a mental process of scarcity or distinction at play in specialty coffee. In other words, with a proliferation of cafes, coffees, and preparation techniques available, specialty coffee consumers who generally seek pleasure may be specifically pursuing distinction—a taste profile that is intense, memorable, and scarce in space or time. Zhong and Ryu (2010) surmised that risk-taking could be associated with distinction. This association did not occur in our research. Thus, distinction in specialty coffee may be specific to acidic taste profiles, rather than just 'trying something new.'

Second, the positive loyalty and word-of-mouth outcomes of specialty cafes are more likely to be driven by quality as a whole than by *riding* any specific taste trend. While we confirm the well-established theory linking gastronomic product quality to positive behavioral intentions (Zhong & Moon, 2020), the world of third wave specialty coffee has been notoriously trend driven. Our findings warn against this tendency. Specialty cafes following trends would neglect minimum customer requirements, such as product quality and atmospherics, at their own peril.

Practical Implications

The findings of our study have several implications for professional practice. First, we found that pleasure in buying coffee uniquely predicted customers' preference for a more acidic espresso flavor profile. Thus, specialty cafes with a choice of coffees for espresso can ask uncertain customers about the pleasure of buying coffee to steer them toward more or less acidic flavor profiles. Helping consumers navigate coffee menu choices is an urgent practical concern of baristas and cafe managers. Furthermore, acidity in the flavor profile is a particularly sensitive point. Based on our findings we suggest that, besides direct questions about acidity, baristas and cafe managers can use questions about pleasure and distinction with customers who struggle to make a choice. Currently, this struggle is dealt with using taste descriptors, which are other foods or beverages that the coffee taste profile brings to mind. An example would be a description of *juicy figs* and *creamy caramel.* These are frustrating, however, as extracting such specific flavors from one espresso to the next is very difficult. Furthermore, as taste is somewhat subjective, a coffee that reminds one customer of figs might remind another of *berries*, leading to a general distrust of these descriptors from both hospitality providers and specialty coffee consumers. Thus, our findings suggest that baristas should first ask customers about their preferred taste profiles and acidity directly and follow up by asking about pleasure in buying coffee.

Second, the findings show that hospitality businesses serving specialty coffee, especially those with relatively more acidity, should foster the feeling of pleasure among consumers. This could be achieved by marketing specialty coffees as a lifestyle choice that contributes to self-care and appreciation. Specifically, coffees that are distinctive in aroma, flavor, and acidity may be linked to the feeling of treating oneself, and thus, be more attractive to consumers who take pleasure in distinction. The distinctions and differences in flavor profiles should be emphasized in terms of

their unique pleasures. An example would be the German roaster Leuchtfeuer, which describes coffees in terms of *exotic richness* and *epic vibrance*. While taste descriptors are also present, they are de-emphasized compared to these promises of pleasure. Our findings support this approach.

While specialty coffee is still considered a niche market, it is expected to grow as quality and transparency become widespread. As such, we suggest that hospitality professionals offer consumers limited but diverse choices in coffee flavor profiles, including clearly labeled more and less acidic profiles. The near-50-50 distribution of preference in our sample suggests that a choice between a more conventional profile and a more acidic profile is useful to serve a variety of consumers. In certain hospitality situations, where coffee is merely consumed for the sake of caffeine, the complexity of offering multiple coffees may not be worth it. Furthermore, some hospitality businesses serve coffee primarily with milk and flavored syrups, making the flavor profile of the coffee less relevant. At Chatwick and many other specialty cafes, however, eliminating one of the choices could eliminate the preferred product of half or more customers.

Finally, in line with other studies on hospitality experiences, atmospherics were of equal value across coffee flavor profiles. Thus, we posit that atmospherics deserve attention for the sake of most or all of a cafe's customers (Boaventura et al., 2018). It is well understood that going to a cafe to drink an espresso is a complex experience that is evaluated beyond just the flavor of the beverage, extending to the behavior of staff and other customers (Nurseto et al., 2023), furniture, decoration, music, sound levels, and smells. While the quality and distinction of coffee flavor profiles remain central to specialty coffee consumers, cafe managers cannot neglect the extrinsic factors that surround this experience.

Limitations and Future Research

A limitation of the present study is the relatively small sample size, which was sufficient to detect medium but not necessarily small effects. The espresso tasting for this experiment cost 5€, meaning that all customers of Chatwick who wished to participate needed to pay for their coffee and were not given any incentive for participating. Therefore, customers of Chatwick had to be interested in the research as well as willing to pay to be able to participate. This was also a strength, however, as the consumption experience was realistically chosen and costly to participants, enhancing ecological validity. Future research in this area could either collect more variety of data from such samples, such as qualitative interview data or secondary behavioral data (length of stay in cafe; social media postings) or enlarge the sample using a longer period of data collection, lower price, or a cafe with very high customer turnover.

A second limitation is that the flavor profile of each of the studied coffees may have varied from day to day, as minute variations in espresso preparation technique can lead to perceptible differences in taste (Bhumiratana et al., 2011). We recommend further exploration of the relationship between the predictors and coffee preference with a larger sample. Repeating the experiment on a larger scale would improve the quality of the results and would be more representative of the population, especially if multiple cafes and more flavor profiles were involved. The third wave of specialty coffee is characterized by distinction and uniqueness. Thus, our findings may only translate partly to other specialty coffee contexts and should be replicated in a way that does justice to the variety inherent in specialty coffee cultivation, processing, brewing, and service.

A third limitation we would like to acknowledge is having carried out the research in October and November. It is not known how time of year affects the experience of specialty coffee consumption, but there are three reasons it may make a difference. First, it is known that different amounts of coffee are consumed at different times of the year (Schreiber et al., 1988), which can affect how special or impactful any single coffee experience feels. Second, in the Netherlands, there is a sharp seasonal difference in eating and drinking outdoors on terraces, including at nearly all specialty cafes. It is unknown, but possible, that the taste experience of espresso consumed outdoors differs from that consumed indoors. Finally, due to the timing of coffee harvests, we might have used an African coffee as the more acidic of the two options at a different time of year. This would have had a comparable but not identical flavor profile.

Finally, to limit model complexity and participant burden, we did not include other variables that could have explained additional variation in taste preference and behavioral intentions. Specifically, objective background knowledge and previous experience with coffee might also play a role in taste preference, while emotion and satisfaction with menu choices may mediate the effects of taste evaluation on behavioral intentions. The routine or habit of purchasing coffee at a particular cafe may also affect the intent to revisit and should be controlled for in future research. Routine is uniquely important in specialty coffee consumption (Quintão et al., 2017), and specialty coffee consumers tend to favor locally owned cafes (Ferreira et al., 2021; Mundel et al., 2017) where friendships with staff are more likely, further driving loyalty (Velthuis, 2022). A more complex model including these variables may be assessed in a context where customers are able to take more time with questionnaire responses or interviews.

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