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A **Bibliometric analysis** of research on **neophobia** and **gastronomy tourism**

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Abstract | This study aims to investigate the current status of studies on "neophobia and gastronomic tourism"published in the international literature over the last 41 years (1980-2021). The data was extracted from Web of Science (WOS), and so a bibliometric analysis of the publications indexed in WOS was made in this study. The VOSviewer program was employed in order to analyse and visualize the data for a total of 3269 studies on the subject of "neophobia and gastronomy tourism"from the relevant database. Besides, the analysis of the data was supported by the R package program. It has been observed that there are 2113 articles out of 3269 documents on neophobia and gastronomy tourism and that the highest number of articles were published in 2021. The findings indicate that the most cited author was Siegrist, M. and that the most cited document was. Also, it has been found that the most co-cited article was written by Pliner, P. The United States, with the most cited and strongest ties, also appears to be the most prolific country. This study provides an overview of neophobia and gastronomy tourism research which has been conducted over the last 41 years through bibliometric analysis.

Keywords | Neophobia, gastronomy tourism, bibliometric analysis, Web of Science

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1. Introduction

Food, an important part of daily life, is attracting attention today (Birch & Memery 2020). Eating and drinking activities to meet basic nutritional requirements have become an integral part of culture over time (Barakazı & Çakır, 2021) and have taken their place in culinary tourism. According to the World Food Travel Association (2015), food tourism is the experience of "unique and memorable foods and beverages"(Birch & Memery, 2020, p. 4).

Gastronomy tourism is a type of activity (Lin, Marine-Roig & Llonch 2022) that is characterized by tourists' experiences with products and activities related to authentic and local foods. Also, it includes visiting related places for tasting and eating (Visković & Komac 2021). As a result, one of the reasons why people travel is to improve their dining experience. Within the framework of gastronomic activities, tourists may have some reservations about food and beverage in destinations visited. It is a neophobic feature that the consumer does not want to consume foods and beverages which do not belong to their own culture. Therefore, neophobia can be described as a phenomenon in which tourists avoid eating non-traditional or unfamiliar foods (Losada-Lopez, Dopico & Medín 2021). According to the literature review, it could be concluded that neophobia increases with age. Moreover, it was found that the intention to visit gastronomic destinations and eating habits are unrelated (Farias, Silva & Costa, 2022). This outcome can be associated with a neophobic personality.

This study aims at examining topics related to gastronomy tourism and neophobia (food neophobia), both of which have become increasingly popular in recent years. The purpose of this research is to overview the current status of studies which investigated "neophobia and gastronomy tourism"and were published between the years 1980 and 2021 in the international literature. Bibliometric analyses were employed in order to achieve this purpose.

In the literature review, no bibliometric study with the combination of Neophobia and Gastronomy Tourism was found; thereby allowing this study to contribute to the literature. This study contributes to the literature by providing data on the current status of studies on neophobia (food neophobia) and gastronomic tourism through bibliometric analysis. The related data were obtained from the Web of Science database. The most cited authors, documents and sources, the most frequent common keywords; the most related words, articles with the largest common citation network, and the most productive countries and organizations were identified in this study. In this context, the current status of studies on "neophobia and gastronomy tourism"published between the years 1980 and 2021 in the international literature has been determined.

2. Literature Review

2.1. Neophobia and Food Neophobia

Even though neophobia is a well-defined condition (de Almeida et al., 2022), it has a highly significant impact on individuals' lives (Schaffer et al., 2021) and has been accepted as a model of learning that is unrelated to the adaptation period (Vicente & Casa 2021). Neophobia is a personality trait that is highly influential in consumers' acceptance of new products (Losada-Lopez et al., 2021). People with this type of personality not only look for unknown and new foods in line with their diet, but also avoid them (Dominguez et al., 2019). This situation leads to food neophobia.

According to Lafraire, Rioux, Giboreau and Picard (2016), food neophobia is accepted as a type of behaviour that includes avoidance of new foods (Hashemi, Mohammed, Kiumarsi, Kee & Anares-

tani 2021). Pliner and Hobden (1992) defined food neophobia as reluctance and avoidance of testing and consuming novel foods (Huang, Bai, Zhang & Gong 2018).

2.2. Food Neophobia and Personality

Some factors influencing food neophobia (de Almeida et al. 2022,) can be genetic or environmental (Jezewska-Zychowicz, Plichta, Drywie´n & Hamulka 2021). Asperin, Phillips and Wolfe (2011) stated that the point where the food industry and gastronomy research meet is to understand the neophobic situation in the target population and to cope with it (Cifci, 2020). For that reason, this situation can be regarded as a neophobic personality.

Food-related personality traits express people's feelings or behaviours towards food (Hsu & Scott 2020). Likewise, Siegrist et al. (2013) state that food behaviour and personality traits are linked to one another (Baah, Bondzi-Simpson, & Ayeh, 2019). Therefore, neophobia is a type of behaviour exhibited against food consumption. This has been confirmed by several related studies in the literature. For example, Dominguez (2019, p. 210) found that neophobia is observed in humans and other species, but neophobic people have a marked tendency for foods they are accustomed to (Jezewska-Zychowicz et al., 2021).

Local food experience affects various dimensions of personal experience, including loyalty, positive emotions, success and well-being (Pourfakhimi, Nadim, Prayag & Mulcahy, 2021). According to Goolaup and Mossberg (2017), consumption of local food in a local place is a part of ego development, self-development, self-esteem, success and prestige for some tourists (Pourfakhimi et al., 2021). However, people from the upper class may be more neophobic than those in the lower and middle classes (Wortmann, Gisch & Warschburger 2021). Such neophobic personalities can occupy a different place in the context of gastronomy (Pourfakhimi et al., 2021).

2.3. Gastronomy and Local Gastronomy

The term gastronomy originates from the Greek culture, which is intertwined with the Anatolian civilizations. Gastronomy is defined as "the art of eating well" in Webster (2019), Cambridge (2019) and Oxford (2019) dictionaries (Tütüncü, 2019, p. 94). The Turkish Language Association also provides two definitions of the term gastronomy. First, gastronomy is defined as "the curiosity of eating well", and the second definition of the term is "healthful, well-arranged, pleasant and delicious cuisine, food order and system"(Samancı 2020, p. 93).

Kim et al. (2019) showed that the reason why a winery in Italy is re-visited by tourists is because of delicious gastronomic experiences of the tourists (Gupta & Sajnani, 2019). Furthermore, Mak et al. (2012) stated that the driving forces such as interpersonal relationship, health anxiety, sensory appeal, excitement, and cultural experience lie at the bottom of consuming local foods and beverages in a tourism destination (Birch & Memery 2020). Those driving forces can also affect the interest in local gastronomy.

2.4. Gastronomy Tourism and Gastronomic Destinations

Gastronomy tourism includes a variety of holidays with such elements as vineyards, breweries, farms, restaurants, bars, culinary schools, detox diets, and nutrition-related seminars (Kokkranikal & Carabelli, 2021). Gastronomic tourism encourages people to visit distant destinations. Also, Timothy and Ron (2013) defined gastronomic tourism, which facilitates access to food and beverages, as one of the relevant fields of heritage tourism

(Kokkranikal & Carabelli, 2021), and Rane (2011) stated that street food is an indispensable part of gastronomic tourism (Gupta & Sajnani, 2019).

Gastronomic destinations emerge as a result of the use of local cuisine for attracting tourists (Farias et al. 2022, p. 114). In this respect, the gastronomy of a locale can attract more tourists. For instance, Fields (2002) stated that gastronomy tourism is effective among people who visit other touristic destinations (Barakazı & Çakır 2021). A number of studies have revealed that touristic destinations have certain effects on food tourism, local people, economy and environment (Chen, Lee & Kuan, 2021). Those effects can also influence the intention to re-visit touristic destinations.

2.5. Selected Research on Food Neophobia and Gastronomic Tourism

Attitudes of tourists towards foods in the destinations where they visit and their consumption preferences are considered as neophobic; the gastronomic evaluation is also discussed in the context of gastronomic tourism in the literature. Several studies on food neophobia and gastronomy tourism are shown in Table 1.

Table 1 | Selected Articles on Food Neophobia and Gastronomy Tourism

Author, Year	Method	Purpose	Result
Gupta & Sajnani, 2019	Quantitative (survey)	To determine whether foreign tourists' dining experiences are influenced by cultural differences and their behavioural intentions.	Street food experience increased and affected their behavioural intentions to revisit the destination.
Şengül, 2018	Quantitative (survey)	To find out the effect of dimensions of brand equity on intention to travel.	Dimensions of brand equity have a positive relationship with intention to travel.
Pagliarini et al., 2021	Quantitative (survey)	To score consumer clusters towards novice foods from hedonic perspective and distinguish their behavioural attitudes	It was found that there might be food neophobia and sensory perception.
Hashemi et al., 2021	Quantitative (survey)	To investigate the relationship between destination culinary image, destination food image, and food neophobia of culinary tourism activities and behavioural intentions of tourists traveling to Malaysia.	Food tourism was found to have a significantly positive effect on behavioural intention; however, no positive or explanatory relationship between food neophobia and behavioural intention was shown.
Jaeger et al., 2017	Quantitative (survey)	To explore the relationship between food intake and food preference in food neophobia.	It was observed that the relationship between food neophobia (FN) and food intake and choice is multi-faceted and that the effects of FN vary seasonally. Also, it was determined that FN poses an additional risk with the negative effect of food intake in low-income groups and that FN increases with age.
Derinalp Çanakçı & Birdir, 2019	Quantitative (survey)	To measure the connection between food interest, seeking food variety and food neophobia of foreign tourists who visit Turkey.	A positive and characteristic relationship was found between food interest and food variety-seeking while a negative and uncharacteristic relationship was found between food interest and food neophobia.
Çınar et al., 2021	Quantitative (survey)	To measure the effect of food neophobia on vegetarians and vegans and genders	Although there is no difference between genders in terms of plant neophobia, it was found that women have a greater tendency towards meat neophobia compared to men.
Heuvel et al., 2019	Quantitative (survey)	To discover the connection between the disadvantages of increased malnutrition risk and demographic characteristics with food neophobia in older people.	It was found that food neophobia is associated with old age, living alone and low education level, and food neophobia increases with age.
Zhang et al., 2021	Quantitative (survey)	To investigate the impact of racial (ethnic) food tourists' perceptions of hygiene on their behavioural commitments.	The perception of hygiene in ethnic food restaurants has a positive effect on the behavioural commitment of tourists, and tourists' emotional commitment to ethnic food is positive.
Payandeh et al., 2020	Quantitative (survey)	To investigate factors which affect the desire of travellers and tourists to eat local foods at resorts in Gulian province in northern Iran.	It has been determined that the elements of food neophobia have a high motivating power in the preferences of tourists.

Table 1 | Selected Articles on Food Neophobia and Gastronomy Tourism (cont.)

Farias et al., 2022	Quantitative (survey)	To find out how intention to visit a gastronomic destination from economic perspective can be affected by responsive consumption, tourist eating habits, and societal influence on food consumption.	It was understood that social influence and tourist eating habits do not have an encouraging effect on visiting the destination and that eating habits do not have a relationship with the intention to visit eco-gastronomic destinations.
Bolborici et al., 2022	Semi-structured interview	To prove that gastronomy and culinary activities, which are a different dimension of an intangible cultural heritage in globalization, are not just an area of intangible heritage site.	It was concluded that there is an element which shapes the local identity and supports sustainable tourism by drawing its strength from the intangible heritage.
Chen et al., 2021	Quantitative (survey)	To find out the most ideal form of information for Taiwan's food and tourism industry and determine whether it has an organizing effect on the impact of food neophilia and food neophobia in order to attract foreign tourists.	As for the approach of foreign tourists to Taiwanese food culture, it was shown that while neophobes approach food with interest and enthusiasm, those with food neophobia do not want to eat by avoiding the food.
Jonsson & Nyberg, 2022	Semi-structured interview	To investigate the food activities which are offered to elderly individuals who get inpatient treatment in the hospital within the scope of hospitality.	It was reported that hospitality begins when patient benefit, time, food presentation and dining area are managed, and hospitality occurs within the scope of the organization applied in hospitals.
Işın & Kurt, 2017	Quantitative (survey)	To determine the knowledge and ideas about the effect of gastronomy on Turkish culinary culture of the undergraduate students in the gastronomy and culinary arts department of Gazi University and the kitchen workers in 5-star resorts.	It was found that educated individuals have positive approaches to molecular gastronomy and that students give more realistic answers to molecular gastronomy than cooks.
Satherley et al., 2018	Quantitative (survey)	To develop a scale on celiac patients' food attitudes and behaviours.	Food attitudes and behaviours of coeliac patients were found to be stable.
Huang et al., 2018	Quantitative (survey)	To find out the effect of food neophobia.	It was found that food neophobia is negatively related to trust while it is positively related to health awareness and price. Also, purchasing attitude was reported to have an explanatory and negative relationship with purchase intention.
Kokkranikal & Carabelli, 2021	Online analysis	To explore skills of tourists in cooking and contribute to the literature.	The dimensions of hedonism, local culture, participation and knowledge were reported to be significant in terms of the experience of tourists who attend cooking classes.
Gutierrez et al., 2020	Content analysis	To investigate the communication of tourists in the social network by determining the aspects that determine the local gastronomic power and experiences of tourists.	It was found that in addition to personal experience process, as a result of the social communication analysis, gastronomic experiences of the tourists are reflected as social comments between the service provider and the service recipient.

Source: Smart Community Ecosystem

When the studies on food neophobia and gastronomy tourism are examined, it seems that the quantitative analysis method is utilized as a research method and that especially the data are obtained through questionnaires. Gupta and Sajnani (2019) and Hashemi et al., (2021) found that food tourism has a positive effect on tourists' behavioral intentions. In the context of tourists' behavioral intentions, Şengül (2018) found that the dimensions of gastronomy brand equity are positively related to the intention to travel. Farias and others (2022) found that tourist eating habits do not have an encouraging effect on visiting the destination and that the intention to visit eco-gastronomic destinations and their eating habits are irrelevant.

The conclusion that food neophobia is associated with old age was found by Van den Heuvel et al., (2019). This is similar to the result of Jaeger and others' research (2017), where food neophobia is directly proportional to age; that is, it increases with age. Pagliarini et al. (2021), on the other hand, concluded that sensory perception may be associated with food neophobia. This result shows that sensory perception affects the behavioral intentions of individuals.

Derinalp Çanakçı and Birdir (2019), who investigated the relationship between food interest and food neophobia, found a negative and uncharacteristic relationship in their study. Çınar et al., (2021), in their study on food neophobia, concluded that although there was no difference between the sexes in terms of plant neophobia, women were shown to be more meat neophobic than men. Also, Chen et al. (2021), found that foreign tourists'

approach to Taiwanese food culture exhibited positive behavior while those with food neophobia exhibited negative behavior. These results show that individuals with food neophobia are inclined to exhibit negative attitudes.

Examining gastronomy, which is a different dimension of cultural heritage, Bolborici et al. (2022) concluded that gastronomy is an element that shapes local identity and supports sustainable tourism. Zhang et al. (2021), found that tourists' emotional attachment to racial food is positive. Therefore, these results support each other. Kokkranial and Carabelli (2021) emphasized the importance of participation of tourists in cooking classes in terms of experience. This result affects the behavioral intentions of tourists. Işın and Kurt (2017), on the other hand, found that educated individuals have positive approaches to molecular gastronomy and that students give more real answers to molecular gastronomy than cooks. In this context, the results of the relevant studies overlap with each other.

In their studies on food neophobia and purchase intention, Huang et al. (2019) found that food neophobia directly and negatively affects purchase intention. Jaeger et al. (2017) concluded that food neophobia poses an additional risk, along with the negative impact of food intake on low-income groups. In short, it is seen that tourists' dining experiences and behavioral intentions are directly related, and their behavioral intentions affect their purchase intention. That food neophobia increases with age appears to be a significant result.

3. Methodology

3.1. Method

The data obtained were examined with the bibliometric analysis method, a quantitative research method. General information about the study was provided, and then answers to the research questions were sought. In this study, Web of Science was chosen as the research area. Web of Science contains abundant and qualified data for most of the bibliometric analyses (Pelit & Katırcıoğlu 2021). The WoS database was selected in that it is highly acceptable and reliable among scholars. Using the WoS data also diminishes the likelihood of recurrent studies. The terms "neophobia", "food neophobia", "gastronomy" and "gastronomy tourism" are related and complementary to each other. Those terms were used as keywords in the row insertion section of the Web of Science database. "Article"was chosen as the document type, and 3269 publications were accessed from the database. In total, 2,113 articles in the Web of Science database were analyzed using VOSviewer. Selected articles are limited to the "Neophobia" and "gastronomy tourism" keywords.

3.2. Data Collection

The data were obtained from the Web of Science database by searching for the keywords "neophobia", "food neophobia", "gastronomy" and "gastronomy tourism" with a focus on the years between 1980 and 2021. The reason why Web of Science was chosen was because it is a reputable database of research published in highly-ranked journals.

This research seeks answers to the following questions in the studies that focused on "Neophobia and Gastronomy Tourism":

q.1. In which years were the most publications made?

q.2. Who are the most-cited authors?

q.3. What are the most-cited documents?

q.4. Which are the most-cited countries?

q.5. What are the most cited sources?

q.6. What are the most frequently used (most related) words?

q.7. What are the most used keywords?

q.8. Which countries have the highest collaboration rates among authors?

q.9. Which organizations have the most co-authors?

q.10. Who are the most cited co-authors?

q.11. What are the most frequently-used words in abstracts?

q.12. Which articles have the largest co-citation network?

4. Results

The data for this study were obtained from the Web of Science database and were analyzed using the 1.6.18 version of the VOSviewer program. In the analysis phase, the analysis of the data was supported by the R package program since it is a graphical user interface which provides easy access to visual mapping such as citation, graphical analysis, bibliographic matching, and mapping of keywords together (Eren & Eren 2020). Visual maps were created and analysed with the VOSviewer program.

Table 2 | General Information on the Data of the Study

Time Range	1980, p.2021
Resources (Magazines, Books, etc.)	893
Documents	3269
Average Years Since Publication	8.71
Article	2113
Keywords Plus (ID)	4919
Author's Keywords (DE)	6059
Writers	8021
Author Views	11763
Authors of Single-Author Documents	316
Authors of Multi-Author Documents	7705
Single-Author Documents	374
Number of Documents Per Author	0.408
Authors Per Document	2.45
Co-Authors Per Document	3.6
Collaboration Index	2.66

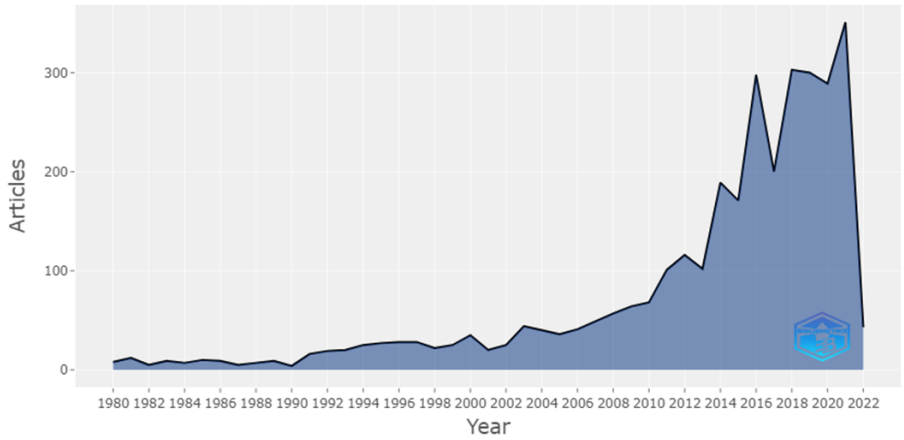

Figure 1 | Number of Publications by Years

As seen in Table 2, the literature review concluded that the studies on Neophobia and Gastronomy Tourism covered the years 1980-2021 and were studied by 8021 authors. There are 893 sources, 3269 documents and 2113 articles on the subject. The number of single-author is 316, and the number of multi-author is 7705. In addition, it was understood that the number of co-authors per document is 3.6, and the number of documents per author is 0.408 (Table 1). As for the publications over the years, 8 papers were published in 1980, and between the years 1980 and 1990, 4 papers were published. In the year 1990, there was a downward trend. However, in 2006, there was an upward trend with 41 publications. Between 1980-2021, the highest number of publications were made in 2021 (351 papers), and the annual scientific production was 4% (Figure 1).

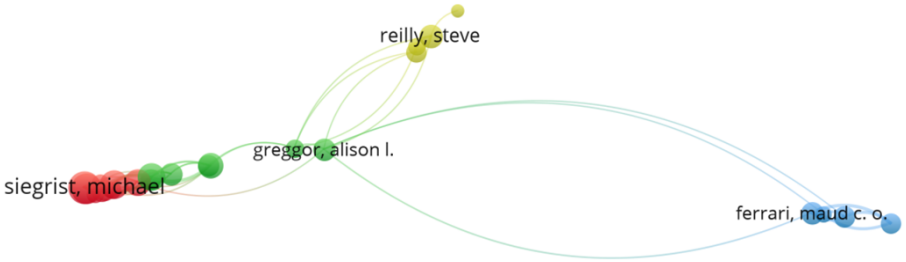

Figure 2 | Most Cited Authors

"Citation analysis"and "authors"options were selected for the most cited author analysis. The minimum number of documents for an author was set to "10" and the minimum number of citations to "20", and the number of authors was determined to be "29". The visual map consists of four sets. Clusters with 8502 authors create 200 links. Red, green, blue and yellow clusters consist of 9, 7, 4 and 4 elements, respectively. The clusters were also comprised of 27 ties. According to the results of the analysis, Siegrist, M. (n=1107, 16 documents), Hartmann, C. (n=798, 15 documents), Tuorila, H. (n=658, 10 documents), Pliner, P. (n=571, 11 documents), Tuorila, H. (n=512, 12 documents) were the most cited authors. The strongest link with the highest number of documents (27) belongs to Ferrari, M.C.O (274) (Figure 2).

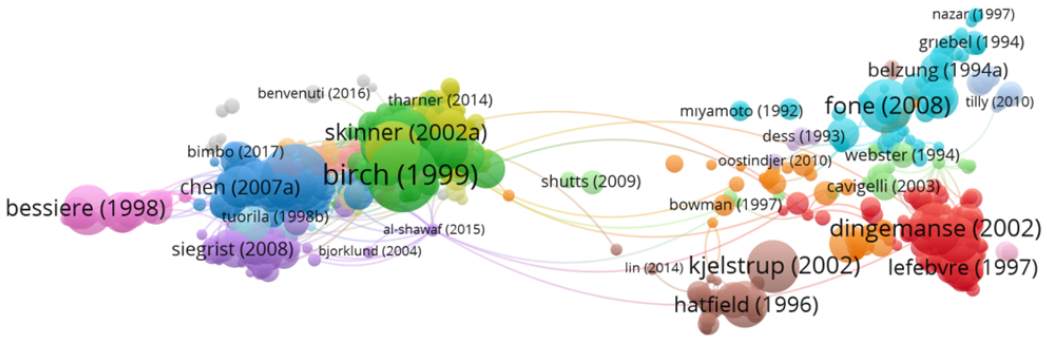

Figure 3 | Most Cited Documents

Map, "citation" and "documents" options were selected for the most cited document analysis. In the program, the minimum number of citations of the document was "20". The study, which includes 3269 documents, consists of 29 clusters and 736 items. The most cited documents in the study were Birch (1999) n=1024, Pliner (1992) n=935, Dovey (2008) n=609, Fone (2008) n=588, Dingemanse (2002) n=558, respectively. Pliner (1992) was the strongest with n=935 and 216 coupling strengths (Figure 3).

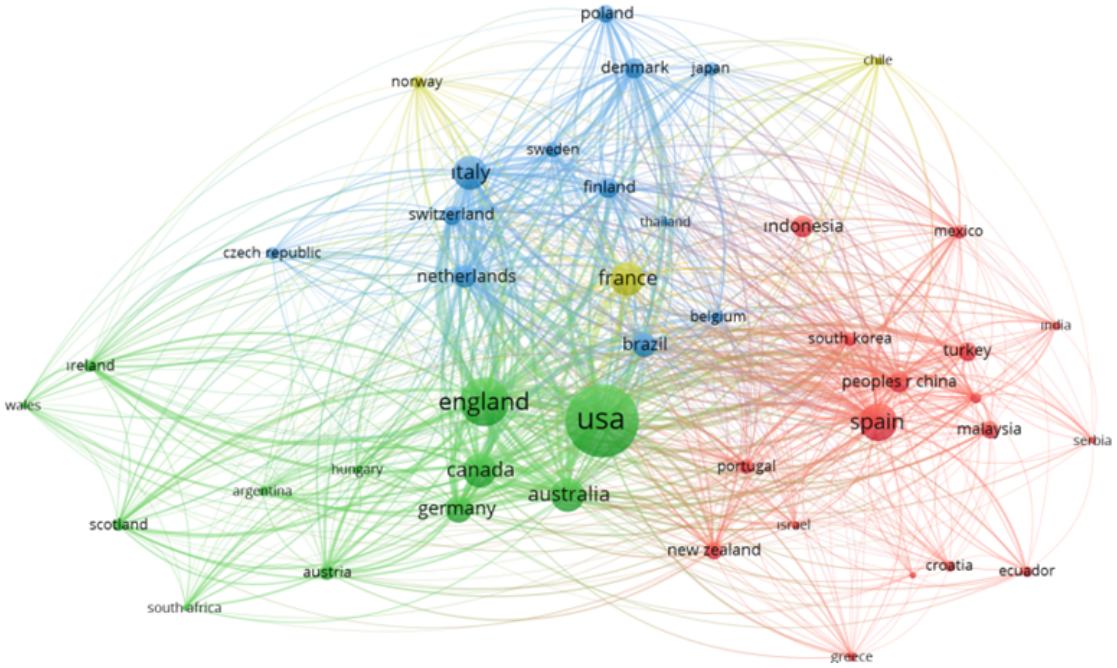

Figure 4 | Most Cited Countries

The "citation"and "countries"options were selected for the analysis of the most cited (most productive) countries. The minimum number of documents for a country was set to "10"and the minimum number of citations to "10"in the program. In the study, which included 106 countries, the USA (n=19234, 600 documents), England (n=12947, 305 documents), Canada (n=4751, 166 documents), France (n=4219,168 documents) Netherlands (n=3670 documents), 90 documents). The USA (4794) had the strongest ties, while Serbia had the weakest ties (2) on the map (Figure 4).

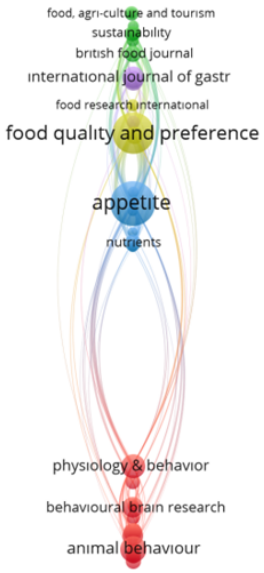

Figure 5 | Most Cited Sources

"Citation" and "source" options were selected for the analysis of the most cited sources. The minimum number of documents for a source was set to "15"and the minimum number of citations to "10"in order to determine the most cited sources in the study. In the study, which includes 892 references, the most cited sources were "appetite" (n=9456, 190 documents), "food quality and preference" (n=6302, 165 documents), "animal behaviour" (n=4016, 79 documents), "psychology and behaviour" (n=2269, 69 documents), and "behavioural brain research" (n=1511, 55 documents). At the same time, "appetite" (n=9456, 190 documents) was the most influential of the international sources with its 1967 link strength (Figure 5).

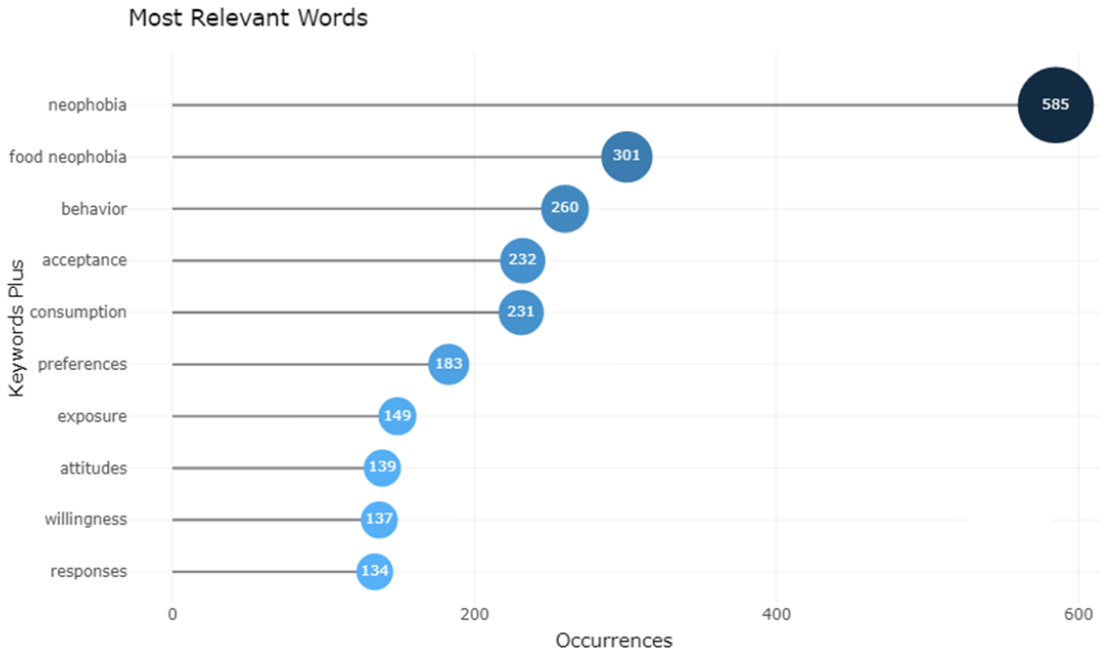

Figure 6 | Most Frequently Used (Most Related) Words

Among the studies which spanned the years from 1980 to 2021, the 10 most relevant words were discussed in the data obtained from the R package program, which was used for the analysis of the most frequently used (most relevant) words by the authors. In the study, which included 4919 words in total, the three most frequently used words were "neophobia" (f=585), "food neophobia" (f=301) and "behaviour" (f=260). "Neophobia" (f=585) is seen to be the most frequently used word among the ten most relevant words, and the word "reactions" (f=134) appears to be the least used word (Figure 6).

"Keyword" and "occurrence" options were selected for the analysis of the most used keywords. The minimum number of occurrences of a keyword was determined to be "20". Of the 6186 keywords in total, the most used words were; "neophobia" (f=405), "food neophobia" (f=218), "gastronomy" (f=163), "children" (f=110), "tourism" (f=105). The word which had the strongest link among the keywords was "neophobia", and the word with the weakest link was "consumer behaviour" (Figure 7).

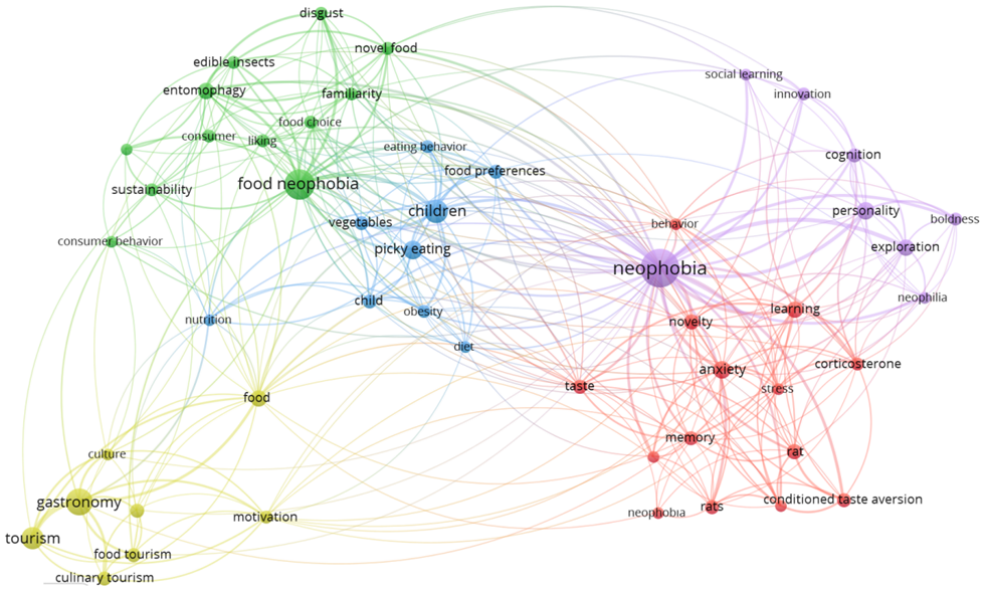

Figure 7 | Most Used Keywords by Authors

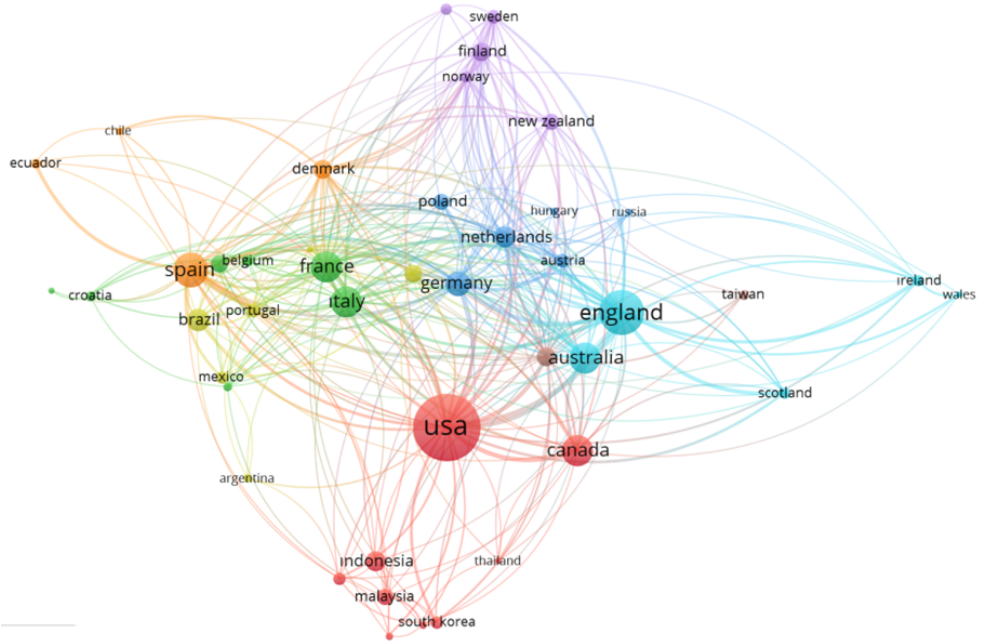

Figure 8 | Top Author Collaborating Countries

"Countries" and "author collaboration" options were selected for co-author analysis by country. The minimum number of documents of a country and the minimum number of citations of a country to were both set to "10"in the program. The countries which collaborated most out of 106 countries in the study were the USA (n=19234, 600 documents), the United Kingdom (n=12947, 305 documents), Canada (n=4751, 166 documents), France (n=4219, 168 documents), and the Netherlands (n=3670, 90 documents), respectively. England (226), the USA (208) and Germany (130) were the countries with the strongest networks. Serbia (2) had the weakest network. As a result, the UK, the USA and Germany were the countries with the highest link strength (Figure 8).

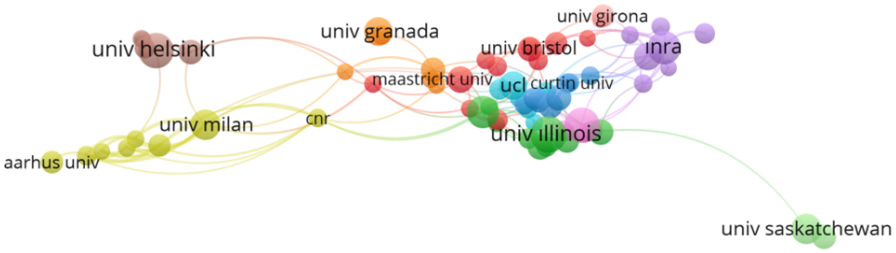

Figure 9 | Organizations with the Most Author Collaboration

"Author collaboration" and "organizations" options were selected for the analysis of the organizations with author collaboration. The minimum number of documents of an organization was set as "10"and the minimum number of citations of an organization at "10". The study, included 2330 organizations in total; the organizations with which the authors collaborated the most were the University of London College (n=2615, 25 documents, 10 total link strength), Penn State University (n=2560, 30 documents, 16 total link strength), Helsinki University (n=1490, 35 documents, 9 total link strength). Despite this, the University of Milan (710 citations, 28 documents and 36 total link strength) had the strongest connection (Figure 9).

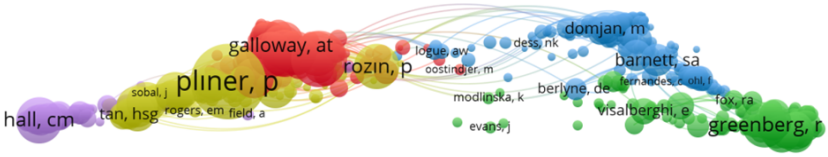

Figure 10 | Most Commonly Cited Authors

"Co-cited" and "cited authors" options were selected for the analysis of the most commonly cited authors. For this purpose, bibliometric analysis, which is one of the quantitative research methods, was utilized. WOS (Web of Science) database was chosen as the research area. The minimum number of citations of an author was set at "5. There were 5 clusters and 1000 items in the study. The most commonly cited authors were Pliner. P. (n=954), Birch, l. l. (n=528), Wardle, J. (n=378), Hall, C.M. (n=352) and Dovey, T. M. (n=350), respectively, out of 51924 authors. The author with the most link strength was Pliner, P. (23028 links), and Maestripieri, D. (94 connections) had the weakest connection; however, Birch, l. It seems to be quite effective with his publications in the database with link strengths of (n=318) 11024 and (n=528) 17244 (Figure 10).

The "co-occurrence network"and "words used in the abstracts"options were selected by using the R package program for the analysis of the most frequently-used words in the abstracts. There are three separate clusters that were formed by the most frequently-used words in the abstracts. The words in these clusters are as follows: "work, food, and results" in the red cluster, "neophobia, taste, behaviour and effects" in the blue cluster, and predominantly, "tourism, gastronomy, local and tourist" in the green cluster. The first four of the 50 records in the program were "work" (f=1310), "food" (f=1293), "results" (f=1145) and "neophobia" (f=1068) (Figure 11).

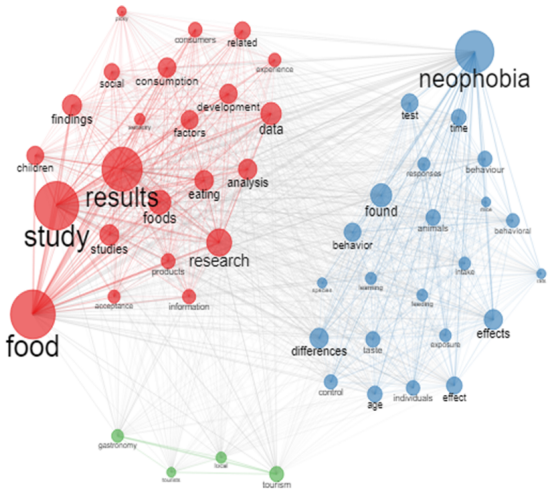

Figure 11 | Most Frequently-Used Words in Abstracts

"Co-citation network"and "articles"options were selected from the R package program in order to analyse the articles with the most common citation networks. The articles with the most common citation network consisted of three clusters. Pliner, P. (1992; 1993; 2006), Tuorilla, H. (1994; 2001), Hartmann, C. (2015), Siegrist,M. (2013) are in the red cluster while Dovey, T. M. (2008), Pliner, P. (1982; 1994; 1997), Birch, II (1980; 1987; 1999) are in the blue cluster. Additionally, Cohen, E. (2004), Greenberg, R. (2001; 2003), Hofmann, C. (2002) were included in the green cluster. The first three of the 50 records in the program, were Pliner, P. (1992), Tuorilla, H. (2001) and Pliner, P. (1993). Pliner was the most co-cited author, with a total of 6 articles in two of the clusters in the co-citation network (Figure 12).

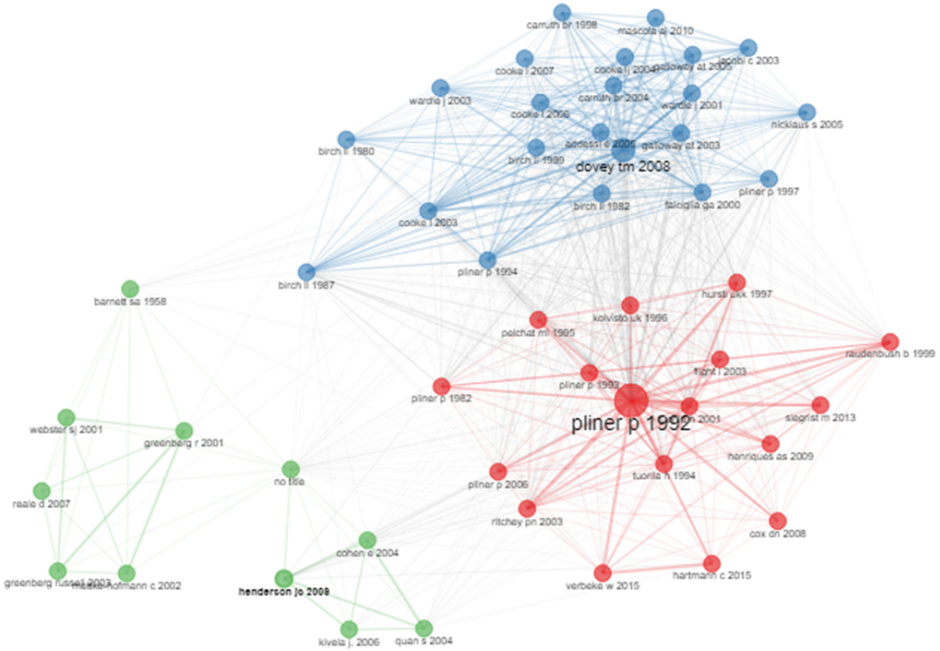

Figure 12 | Articles with the Most Common Citation Networks

5. Findings

Web of Science was chosen as the database, and a total of 3269 publications between 1980-2021 were obtained by scanning the terms "neophobia", "gastronomy tourism"and "neophobia and gastronomic tourism". The findings obtained were analysed using the VOSviewer program. First of all, general information about the data showed that most publications were produced in 2021.

The most frequently used common keywords in publications were terms such as "neophobia (f=405)", "food neophobia (f=218)", "gastronomy (f=163)", "children (f=110)", and "tourism (f=105)". In the abstracts of publications within the scope of the co-occurrence network, the most used words were "work", "food", "results" and "neophobia". The most cited documents are Birch, I. I. (1999) n=1024 and Pliner, P. (1992) n=935, and the most cited authors were Siegrist, M. (n=1107), Hartman, C. (n=798). Furthermore, Pliner, P. was understood to be the author of the articles with a common citation network. Pliner, P. (n=954) and Birch, I.I. (n=528), were shown to be the most commonly cited authors with the highest link strength of 23028 and 17244, respectively. In the most cited source analysis, there are 892 sources in total. "Appetite" (n=9546), "psychology and behaviour" (n=2269), "behavioural brain research" (n=1511) were concluded to be the most cited sources out of 892 sources. "Appetite" (n=9456, 190 documents and 1967 total link strength) was the most effective source. The USA (n=19234) and England (n=12947) were the highest of the total 106 most cited countries. Also, the USA (n=19234, 600 documents) and England (n=12947,305) were the countries with the most author collaborations. As a consequence, the USA and the UK were the most productive countries, which is also compatible with the number of their citations.

The research findings revealed that the studies in the related literature are mostly empirical studies using quantitative methods. It has been found that the number of articles on "neophobia", "gastronomy tourism" and "neophobia and gastronomic tourism" increased as of 2006. However, Figure 1 indicates that despite the Covid-19 pandemic, which outbroke in 2019 and spanned through 2021, the publications increased, and most publications were in 2021. The number of authors for single-author documents was 316, and the number of authors for multi-author documents is 7705 in studies involving 8021 authors on the subject. This showed that the number of co-authored publications on the subject was high, with a minimum of two co-authors.

Figure 8 shows that the countries with author collaboration were the USA and the UK, and as shown in Figure 9 the organizations with author collaboration were in the UK and the USA, but the organization with the strongest ties was in Italy. Moreover, although the most cited authors are Siegrist, M. (n=1107) and Hartman, C. (n=798), the authors with the most common citations and the highest link strength were Pliner, P. (23028) and Birch, I.I (17244). This shows that author collaboration was effective.

6. Discussion

"Neophobia" and "gastronomy tourism" studies have a concrete field of research in the tourism and hospitality domain. This study presents the current status of Neophobia" and "gastronomy tourism" studies in the tourism and hospitality domain. In total, 2,113 articles in the Web of Science database were analysed using VOSviewer. Selected articles are limited to the "Neophobia" and "gastronomy tourism" keywords.

Neophobia specifically as food neophobia and gastronomy tourism have been mentioned together in recent years. "Neophobia" and "gastronomy tourism" are commonly mentioned in internatio-

nal tourism, and a growing body of research has been conducted on this subject. Gupta and Sajnani (2019); Hashemi et al. (2021); Farias et al. (2022); Pagliarini et al. (2021); Gutierrez et al. (2020); the studies of Chen et al. (2021) can be cited as examples.

Results were obtained by using citation and co-citation analyses. Considering the author co-citation analysis results, it can be inferred that Neophobia" and "gastronomy tourism" studies in hospitality and tourism fields are dominated by notable researchers and strong collaborations among authors are observed in terms of research themes such as neophobia, food neophobia, gastronomy and gastronomy tourism.

The studies in the field of neophobia and gastronomy tourism were reviewed, and the studies were investigated using the bibliometric analysis method. In the literature review, Castillo-Vergara, Fuentes and Poblete (2021) found that the USA (155 articles) is the country that contributes the most research on technological innovation in the food industry. This result shows similarity to the result of the largest contributing country (USA 600 documents) found in this study, thus revealing the conclusion that the USA is the most productive country. Moreover, "British Food Journal"was found to be the journal which published the most articles. Naruetharadhol, Gebsombut and Villace(2020) found that the South East Asia region is the focus of articles on food tourism, and most of the articles have two authors, which is consistent with the result of this study. The results of the researchers about the number of authors are in line with the results of this study and show that the number of articles published by more than one author continues to increase.

The evaluations which were made within the scope of bibliometric analysis were discussed together with the findings in this study. It can be concluded that this is an expected result considering the most relevant (most frequently used) words and keywords used in the research since words such as neophobia, food neophobia, gastronomy, work, food, children and tourism in the context of studies on neophobia and gastronomy tourism are directly related to the concepts of neophobia and gastronomic tourism. Additionally, those frequently used keywords reveal that the topics of food neophobia and gastronomy attract a lot of attention.

The results of the citation analysis and the author collaborator country, together with the most productive country analysis, showed that the USA ranks as the country with the highest number of co-authors as well as the most productive, and the strongest ties. In this respect, it could be inferred that the USA is the most prolific country among others. The results of the analysis of the organizations with the most citations as well as the organizations with the most author collaborations, revealed that London College University is the most influential organization on the subject.

Finally, the findings in the study and the literature review showed that empirical studies on the subject were predominantly conducted in the context of the Middle East and Asian countries. The reason behind that might be due to the distinctions between traditional foods and food culture. On the other hand, that the USA and the UK are the most productive countries on the subject is thought-provoking.

Only the Web of Science database was used in the study, which can be considered as a limitation of this research. As a result, the articles published in Web of Science were discussed within the scope of the study. For this reason, articles in other databases were excluded from the review. Considering this, it is recommended that scholars use different databases in their prospective studies and include other sources apart from articles in their studies. In future bibliometric analysis studies, it is recommended to investigate such issues as co-creation network, thematic map, and clustering of studies.

In this study, a literature review and bibliometric analysis were conducted for studies on neopho-

bia and gastronomy tourism. In future studies, content analysis could be made on the subject of neophobia and gastronomy tourism.

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