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Does a university exchange program affect the way students perceive food?

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Abstract

Food is in the centre of everybody's life. The interests between food, sociology and the environment are increasing years after years. This thesis aims to determine if a university exchange program between different countries make students change the way they are perceiving food. Specifically, it investigates the link between the way the students were aware or not of the environmental impacts that food could have, and if this perception evolved during their time abroad. In this context, the perception will relate to the way the people behaved regarding specific topics about the food and its industry.

To experiment this potential change of perception, a survey was created and distributed online to current and former foreign students who spent at least one semester (minimum three months), in Italy. Respondents were asked a series of 21 questions about their experience and behaviour towards food, between before and after their Italian stay. The responses were analysed using different tools. The results have shown a significant evolution in the perception of food. Indeed, after a time abroad, many participants declared seeing a certain evolution about themselves. Their understanding and acknowledging of the environment are seen to have increased and the way they understand how the food industry is linked with the environment and all the problematics about this domain (pollution, greenhouse gases emissions, threatening of the biodiversity).

The results obtained show that students, after a period abroad, are likely to change their behaviour toward food depending on the potential environmental impact it could have. However, the availability of the ingredients, the freshness of them as well as their price are also important factors to consider before buying their food products. Future studies should investigate the same topic but in different regions and country, with a wider sample. Finally, further researches are needed to determine more in details the causes and effects of these evolved perceptions, found in this thesis.

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Nomenclature

- AV: Average of Value chosen
- CF: Carbon Footprint
- EC: Environmental Concerns
- ESAA: Erasmus+ Student and Alumni Alliance
- ESN: Erasmus Student Network
- FAO: Food and Agriculture Organization
- GHG: Greenhouse Gases
- IPCC: Intergovernmental Panel on Climate Change
- IUCN: International Union for Conservation of Nature and Natural Resources
- LCA: Life-Cycle Assessment
- UNFCCC: United Nations Framework Convention on Climate Change

Introduction

Human beings are considered responsible to some extent of the current environmental challenges such as climate change, loss of biodiversity, ice melting, etc. (Poore and Nemecek, 2018). Indeed, the food production has a serious impact on the environment (Food and Agriculture Organization (FAO), 2011). Every day, by choosing what to eat, each person has an influence on the food production, which means on how and how much this food will be produced, thence, consciously or not, on the environment that will be (and already has been) impacted. From the cereals, the fruits and vegetables (that are incapable to grow all year long on a specific territory) to the animals needed for the fish, meat, and dairy products, a lot of factors have to be taken into account when talking about the food industry. The land extension to feed the cattle (Poore and Nemecek, 2018), the threat to the biodiversity with species endangered (International Union for Conservation of Nature and Natural Resources, 2021), the consequences on the climate (Intergovernmental Panel on Climate Change, 2014) as well as the necessary water to grow all type of feedstuff (FAO, 2011) must be considered (amongst other issues).

There is an increasing number of researches addressing these problematics (global warming, pollution, land used specifically for feedstuff) and the way people are perceiving them. Indeed, there are several recent findings dealing with the evolution of food perception, amongst people in general (Nica, 2019; Kushwaha et al., 2019), but also for students who decided to go abroad for their studies (Min Lee et al., 2017; Ciliotta-Rubery, 2016; Losekoot and Hornby, 2019). People appear to be disoriented and confused when it comes to make decisions and choices on a more sustainable food consumption. Indeed, several factors (origin, seasonality, animal-welfare, sustainable fishery) are to be considered when buying products environmental-friendly (Randoni and Grasso, 2021). It is also important to notice that students do not behave similarly than people in the working life, due to some reasons. According to an American team of scientists, *“Overall, students choose food mostly based on nutrition, health, and price and least due to environmental concerns. Therefore, raising students’ awareness of food system issues when providing nutrition education is needed”* (Min Lee et al., 2017). This study was carried out in the USA, with East Asian international students, dealing with their perception and attitudes towards food. This shows that education can be crucial to make people change the way they are perceiving food. Going abroad makes students experience some food and ingredients that they potentially would have never tried. This opportunity makes people recognizes that each culture has a specific food identity, taking its roots from its cultural, political and social history, geographic location, religious and gender distinctions (Ciliotta-Rubery, 2016). Another study, carried out in Turkey shows that when younger, people tend to prefer high calories and fat choices (regarding food), instead of trying new food, having variety in the meals and eating more vegetables (Unuan, 2005). Moreover, a study realised in France, based on online surveys to the active population (students and workers) concludes: *“In the context of an increasing concern about impacts of food production on the planet, the present study elicited what French consumers of organic food (selected as regular buyers of organic food) spontaneously perceive when considering the*

environmental impacts of food and when considering the LCA impact categories used by companies” (Thomas et al., 2021).

Despite the richness of studies concerning the perception of food (see also the chapter 1. *Literature review*), there is a lack of research addressing the evolution of this perception for students who study abroad. It is important to study this lack of knowledge, not only for education relative to environmental problems, but also to comprehend the social aspect of food (the encounters made from that, the experiences and times lived around the table, the emotions vehiculated through food), and how a different culture can make people open their eyes on different products and experiences (Gustafsson and Draper, 2009). And the contact with a different culture is what will forge someone’s identity. After all, “*we are what we eat*” (Feuerbach, 1848). Moreover, being aware of what are the foodstuffs on our plate, how this was produced and the consequences related to this production, one can understand more effectively his own actions and act accordingly to try to preserve better the planet. Indeed, food production and the environment are closely linked. Five major threats to the nature have been identified (greenhouse gases, land use, freshwater use, eutrophication and loss of biodiversity). Consequently, understanding these problematics and acting on them will help reducing pollution and water stress. It could help restoring lands (grasslands, forests, ...) and tackle climate change. Finally, it could protect world’s wildlife, nature and the environment in general. Within this context, this thesis addresses the evolution of the perception of food by foreign students who lived in Italy. Thus, the main aims of this study are:

- 1) To analyse the evolution of the perception of food by foreign students who lived in Italy;
- 2) To identify which are the main drivers of change in food perception;
- 3) To understand which and for what reasons they buy certain specific feedstuff and ingredients.

This research will help to understand if and how a stay in a different country (Italy, in this case), thus living in a place with a different culture, can bring an evolution on how food is perceived, especially regarding environmental issues.

The following research questions were the basis of this thesis:

- o Can an exchange program make students change the way they are perceiving food?;
- o After going home, did the exchange programs’ students change their food habits?.

The first hypothesis for this research work is that most of the respondents would perceive a change in the perception of food. The second hypothesis is that students, after the exchange program, would have food habits changed, and would eat more “Italian dishes / food”.

1. Literature review

While there has been much research on the relation between food production and the environment (Denton, 2016; FAO, 2021; Robbins and Ornish, 2001), few studies have taken the idea of the evolution of food perception because of a time spent abroad into consideration (Ciliotta-Rubery, 2016) and (Losekoot and Hornby, 2019). This section will deal with what has been explored regarding food perception, linked with time abroad, students and the environment. Despite a limited expertise on this field, several studies developed interesting ideas and results (Nica, 2019; Min Lee et al., 2017; Kushwaha et al., 2019).

Demirtas (2019) found that, people buy organic and environmental-friendly products only when they are aware of the appropriateness of these products (fruits, vegetables, meat, fish, cereals, ...). Here, the idea of appropriateness means food that is grown locally, that does not cause a lot of pollution or greenhouse gases, and that can be respectful to the animals. These notions of knowledge and awareness developed by Demirtas are also discussed in a recent paper, by a team of French scientists (Thomas et al., 2021). Furthermore, in 2018, Basha and Lal found out that *“Empirical evidence suggested that the following six determinants have a significant influence on consumer purchase intentions for organic foods: environmental concern, health and life style, product quality, supporting local farmers, convenience and price, and subjective norms”*. However, in this same study, it is also indicated that a higher price for the same products, as well as their availability and lack of convenience to buy them has non-negligible impacts, unfortunately on the negative side. Furthermore, this study also shown that *“those consumers who have environmental concerns, they are willing to pay a higher price for organically produced food products”* (Basha and Lal, 2018). A research carried out in 2019 shown that people who bought and consumed environmental-friendly food in the past in their life, were inclined to buy more organic food because their attitude and behaviour were already affected (Koklicb et al., 2019). Another work shown *“that consumers were conscious about the degrading environmental conditions and its subsequent impact on human health. This tension affects their purchase decision-making, which further leads to the increased inclination towards organic food”* (Kushwah et al., 2019). This research also stated that EC (Environmental Concerns) have a significant positive influence on consumers regarding their purchase behaviours. This indicates that the perception of food not only is important, but can and is evolving throughout time. Rondoni and Grasso (2021) found out that people expressing environmental concerns, and with a high perception and knowledge regarding food and its potential impacts are likely to pay more for products respecting more the nature. Erwin Losekoot and John Hornby (2019), shown that foreign food experiences have a considerable impact on individuals. Being in a host country, surrounded by international students, has for consequences to change the way food could be perceived, not solely by discovering new ingredients and dishes, but also regarding EC (Losekoot and Hornby, 2019). Furthermore, education is crucial to raise awareness regarding the food perception and its relation with environmental impacts (Min Lee et al., 2017). These findings are also confirmed by another study. *“This population of students may*

benefit from educational outreach that provides them with a better understanding of how food selection can impact climate change, and how protein requirements can be met even when meat is partially or fully replaced with various plant sources” (Moosman, 2020). The idea that the food perception evolves when being a student is also the topic of the study conducted by Soo et al. (2019). The authors found that when students, food habits are not healthy and education is needed, for health reasons as well as for the environment (Soo et al., 2019). Indeed, there is a strong correlation between an environmentally sustainable consumer behaviour, and the decision of these people to buy a certain type of food (Nica, 2019). The perception they have will grandly influence their choice, and will depend on some environmental reasons for many of them (Nica, 2019). Furthermore, this latter study shown that the increasing concern of eating more environmental-friendly food was a reason to have a healthier and more sustainable manner of living (Nica, 2019). Moreover, *“the perception of the environmental impact of the products that consumers buy is not well known”* and that *“they (the consumers) did not understand certain impact categories used in life cycle assessment (LCA) to estimate environmental impacts”* (Thomas et al., 2021). However, for a small minority of the population, they were aware of their own food perception included several topics, like pollution, sustainability, health, economic and several types of production activities (Thomas et al., 2021).

This literature review shown that many articles, papers, studies and researches have been carried out regarding the topic of food and its link with the environmental impacts. It exists also much literature about the food perception regarding several topics. However, studies linking food, the environment and the perception people could have on it is very limited (exceptions are Ciliotta-Rubery, 2016, and Losekoot and Hornby, 2019). The aim of this thesis is to try to fill this gap and bring insights regarding the perception of food and its impact on the environment and its possible evolution via studies realised abroad. Moreover, we explored what triggered this possible evolution and how much of this evolution is noticeable by the students themselves.

2. Methodology

2.1. *In search of the topic*

The notions of food linked with the landscapes, the nature, the biodiversity and the environment in general were attractive and I discovered that the relation between food consumption, environment and studies abroad was an under-researched topic. This was therefore another good reason to work on this topic with this thesis. The two topics that follows were chosen to investigate during this master thesis:

- Can an exchange program make students change the way they are perceiving food?;
- After going home, did the exchange programs' students change their food habits?.

After clearly addressing what was meant exactly by "food perception", the different values vehiculated by food and the food ingredients, and by specifically defining to whom the potential survey would be intended, it was possible to finalise the main problematic for this thesis:

Does a university exchange program affect the way students perceive food?

2.2. *In search of the questions*

Following an in-depths literature review, several discussions with the supervisor, the questions for which I wanted personally an answer and the motivations of this thesis, I have created a survey adequate for this work research. Once all the questions were found and organised properly, it was necessary to go through the ethic board of the university to be certain that no sensitive information could threaten anyone's privacy while answering the poll. The collection of data as well as their treatment assured a complete anonymity for all the participants of the survey, and absolutely no confidential and personal data were to be collected from them. The Data Management Officer, after reviewing the questionnaire, gave a green light for it to be posted online.

2.3. *Website used to realise this questionnaire*

After having prepared the questions necessary to answer in order to comment on the main problematic of this thesis, it was important to focus on a good platform able to generate surveys.

First of all, it was important to find a website that would respect people's privacy and that would not collect data. After a discussion with a colleague of mine doing the same master at Ca' Foscari, she advised the German website "LamaPoll", internationally famous for the quality of the polls that can be performed. The questionnaire was published on March 15th, 2021, and ran for a month and a half, until the end of April. Below is the link to reach this convenient website:

2.4. *The people contacted to answer the survey*

An important amount of people was contacted to be a participant in this survey. Indeed, the more answers collected, the better the analysis could theoretically be realised.

First of all, several friends that, I personally knew, and who spent at least a semester in Italy, were contacted to take part of this survey. This was not the most academic way to conduct a scientific research but it was necessary to collect some answers that would, nevertheless, be important for this thesis. Furthermore, it was asked to these friends not to hesitate to also share the poll to other people they could personally know, that went in Italy for their studies.

The official Facebook page of the incoming mobility of Ca' Foscari also allowed that a message, describing the purpose of the survey with the link leading to it, was posted.

In the meantime, it was decided to contact the alumni network of the university Ca' Foscari Venezia. After different exchanges of emails, the responsible of this network agreed to share the link of the survey to former students of this university. It was also decided to contact other alumni groups, from different Italian universities, hoping that not only the poll would be shared, but also that a maximum amount of people would accept to be a part of it. Furthermore, the official ESAA (Erasmus+ Student and Alumni Alliance) agreed to share the questionnaire to their different networks.

Another technique that was used in order to share this survey was to post it while explaining the purpose of this work on specialised (and serious) forums for former students who moved in an Italian town for studying. However, this method was found not to be very efficient.

Moreover, the most important way that has been imagined regarding the success for sharing this poll was to contact a specific network. Indeed, it has been chosen to contact all the Erasmus networks who have a partnership with an Italian university. Consequently, a large amount of ESN Italy (Erasmus Student Network Italy) was contacted, both by email and by using their official contact-point on their website. Thus, a serious amount of ESN Italy was approached, from Ca' Foscari Venezia to universities in Bologna, Firenze, Milano, Palermo, Pisa, Roma, etc. Eventually, a total of 54 of these organisms were reached.

Unfortunately, despite a lot of efforts put to create this questionnaire and to share it, the rate of return obtained was much lower than expected. The different alumni networks contacted, despite assuring me that they would share it to their communities have not been highly efficient, as I did not collect many answers from them. The biggest hopes were coming from the several ESN Italy, but solely three of them replied and said that they would share the survey. Unfortunately, once again, this method has not been

effective because a few amounts of people coming from these universities replied (as it will be seen in the question 3: “In which region of Italy did you study?”). All of these ESN Italy were reached, by different points of contacts, and when no answer was given, they were reapproached two more times, again, without any success.

48 people answered the first question. It is also important to notice that not all the questions were equally answered. Nevertheless, all the answers were taken into account.

2.5. *Collection of data*

For this work, both quantitative and qualitative data were needed. The former to be able to establish some statistics, while the latter was necessary to understand the justifications, as it will be explained more in details later in this thesis. All the answers collected were primary data.

After being available for 90 days, the survey has been visited by 164 people. Unfortunately, only 54 participants started it. Furthermore, from this amount of people, not everybody finished the survey (for different personal reasons, the main one being, it seems, because the questionnaire was too long, asking to develop the answers and explain the choices of the answers).

For several questions, the participant was invited to use a scale, from 1 to 5, to give his opinion. As it will be seen, two types of this scale, a) or b), were used (depending on the way the question was formulated). When not using a scale, the questions were either opened or were answered with a “yes or no” scenario. Below are the two scales used.

- a) Rate with either 1 = Absolutely not, 2 = Rather not, 3 = Indifferent, 4 = Rather considering it and 5 = Really considering it;
- b) Rate with either 1 = Not impacting at all, 2 = Rather not impacting, 3 = Indifferent, 4 = Rather impacting and 5 = Really impacting.

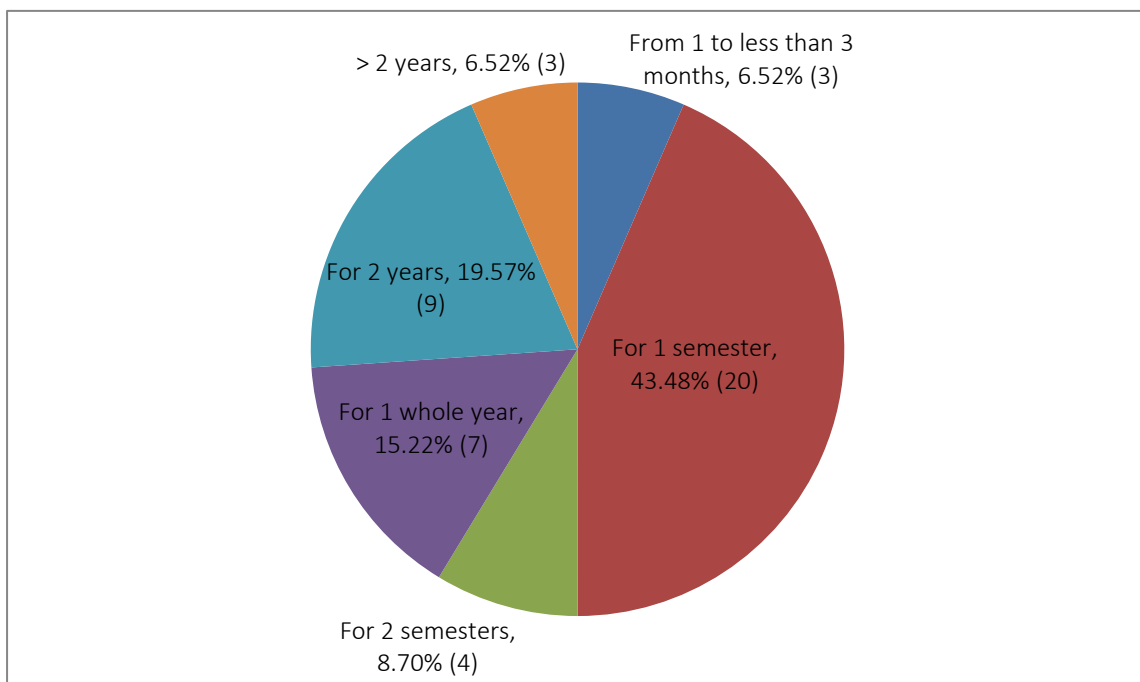
2.6. *Quantitative and qualitative analysis*

For this analysis, the data were extracted from the poll and then entered on Microsoft Excel. This was used to show statistics, create graphs and diagrams and determine the proportions of the different variables searched for. For the questions asked with a scale used, it was easily to notice the most “popular” answer, as well as the “extremes” sometimes chosen. The average for each question was always calculated to give a better insight at the data obtained.

For each question, the participant had the possibility to justify, develop and explain his personal choice. For this, he was invited to write his thoughts on the question asked. These specific answers were then analysed to see if a pattern was emerging among all the responses collected. Central themes and shared justifications were essential to comprehend better the choice of the respondents.

2.7. Their trip in Italy

For the 46 people who answered the second question of the survey, near half of them stayed in Italy for one semester. The rest of the attendees were here either for two semesters, a whole year, two years or more than two years. The answers of the three people who answered “from 1 to less than 3 months” have not been taken into account for the rest of the questionnaire, as it was stipulated initially that it was necessary to have stayed at least for one semester. The graph that follows show the representation of the length of stay of the participants. The numbers in the brackets represent the amount of participants voting for that value.



Graph 1 Participant's length of stay in Italy

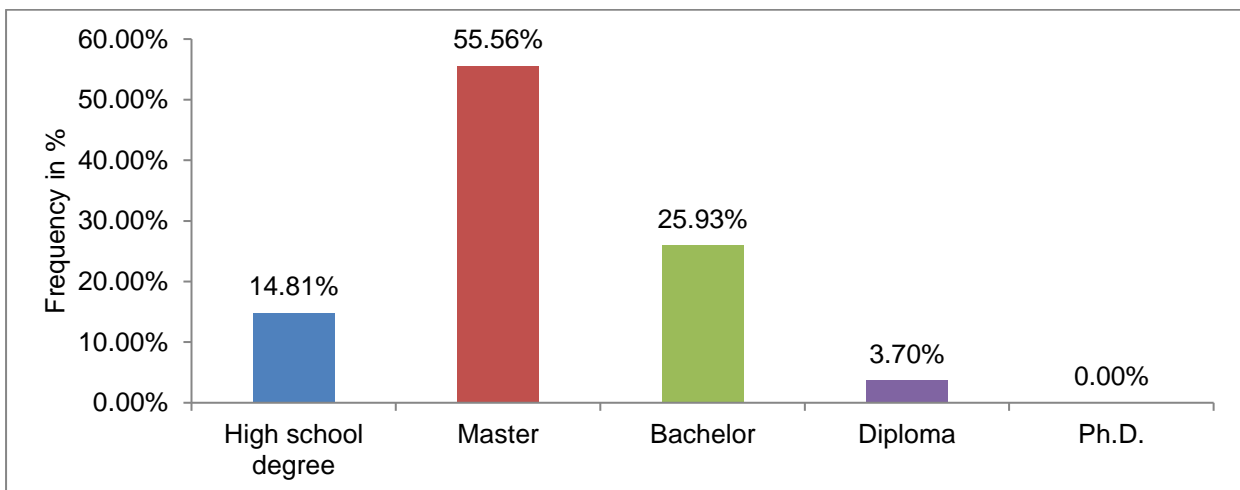
42 of interviewees studied in Veneto. The two other returns came from Lombardia and Molise.

Major part of respondents travelled in 2019, 2020 and/or 2021. Eight participants were still present on the Italian ground. It has been decided not to isolate the answers from those who have not returned to their home county. Indeed, those still present are in Italy for nearly two years now (for some of them more than three years), thus separating their answers with the people who came back would not seem logical, as they probably experienced a certain evolution as well.

2.8. Demographic questions

For the participants reaching this part of the survey (i.e., the end of it), the share of women answered it was greater (17), compared with 10 men.

As it can be seen on the graph below, approximately half of the people answering that question (27 participants) have a master. This means that a certain education was already achieved before taking part to this study and that indicates that they were already potentially aware of some issues regarding food linked with the environment. Evidently, all this depends on the field chosen, and nothing can automatically be assumed. For the path of studies these people took, a bit of everything was represented (from environmental sciences, to economic, human resources, computer sciences...). Therefore, the results that will be analysed later can be maybe explained thanks to the studies undertaken by the participants, especially those in relation with the environment. The list of the specialities / fields of the degree from the participants is available at the end of the report in the *Appendix 3, Field and speciality of the degree of the participants*.



Graph 2 Participant's highest educational degree

From the 27 participants of the survey answering the question regarding their age group, a vast majority of them (18) were between 21 and 25 years old, while 6 of them were aged slightly older, between 26 and 30 years old. Finally, two of them were from 18 to 20 years old and one of the responders was between 36 and 40 years old. This indicates that 2 / 3 of the answers were coming from young people who just graduated or were still students (thus maybe more aware of the current situation of the climate change, as studies shown that in general, younger people tend to be more aware of the dramatic crisis that the planet is facing, in comparison with their elders). This obviously does not mean that the awareness of this situation is reserved to younger generations, as older people can and are also graduating.

Participants came from four different continents, with a total of 17 nationalities. From Belarus to France, Japan to Egypt, Russia to Zimbabwe, Kazakhstan to Iran, a beautiful diversity was observed. This shows that each participant was coming from a certain culture, thence with a specific approach to food (and the environment of course). The *Table 2*, present in *Appendix 2, Nationality of the participants*, shows the list of the different nationalities of the participants answering the poll.

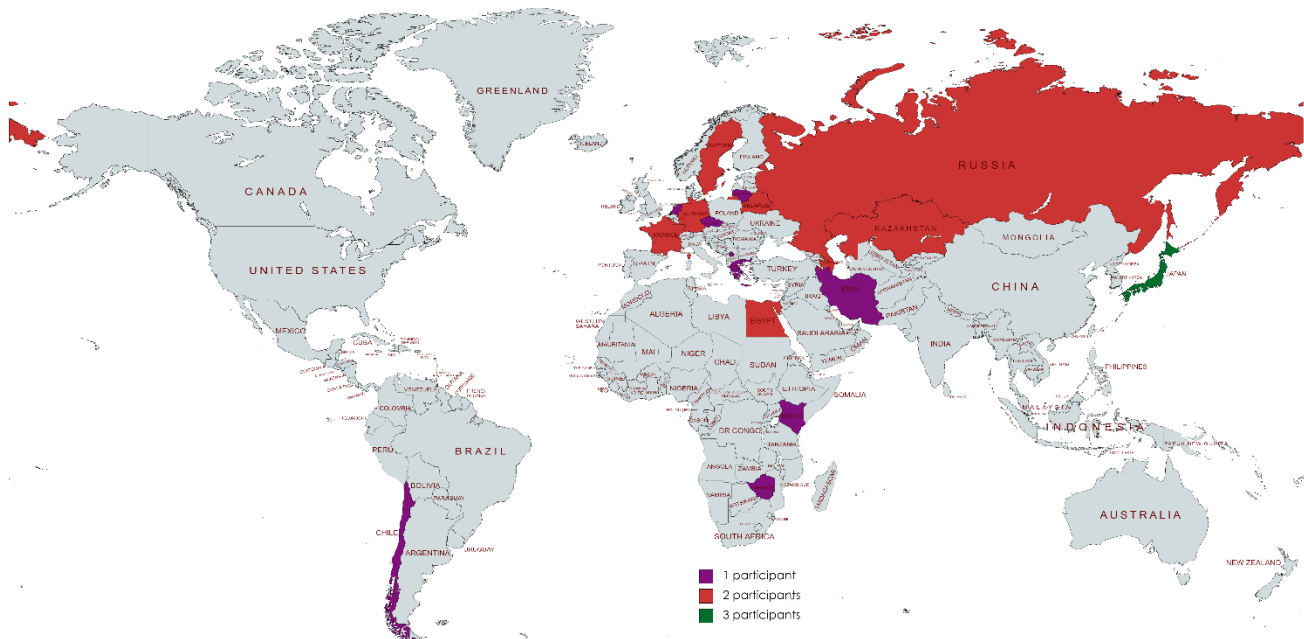


Figure 1 Geographic representation of the sample

2.9. Presentation of the survey

The survey was divided into five distinct parts:

1. Your trip in Italy;
2. Before going on your exchange trip;
3. After coming back from your exchange trip;
4. Your relationship with food;
5. Demographic questions.

A preliminary text was written at the very start of the questionnaire, stating that it was necessary for the person answering the survey to have studied in Italy for several months in order to be able to participate to this study. This was made to have a specific field of study focusing on people who went to Italy, and if after that time abroad, their vision had changed regarding food.

The first question asked: Was Italy your first big trip (more than a month abroad)?, was necessary, to be able to know if people travelled and lived already abroad before Italy. Indeed, a previous long-stay could potentially have impacted their food perception. The questionnaire was answered mainly by young adults (all current or former students) who all have stayed in Italy, during an exchange program, for at least one semester.

2.10. The survey itself

The title of the questionnaire was: **Evolution of food perception after an exchange program for studying in Italy**. The 21 questions that were asked during the survey can be found in the first appendix of this work, *Appendix 1, Questions asked to the participants*.

Below is the first page of the survey (the welcome page) that people taking it were able to see after clicking on the link provided. The link to access this questionnaire is the one that follows:

<https://campus.lamapoll.de/Evolution-of-food-perception-after-an-exchange-program-for-studying-in-Italy>



The evolution of food perception

0% (0/21)



Universit 
Ca' Foscari
Venezia

Hello,

My name is David, I am currently working on my master's thesis regarding the way exchange students' food perception evolved, regarding an environmental point of view, after a study period abroad. I am interested to see if and how after this exchange, people modify their view about food, and if they change their food habits. I intend to share this survey among students who came to Italy to study for at least one semester (it can be for Erasmus, partnership between different universities, on their own, ...).

This questionnaire has 21 questions relatively fast to answer and takes approximately 10 min to complete.

The data collected with the present survey will be treated confidentially and anonymously to respect everybody's privacy. They will be used only for the purpose of the thesis and I am the only responsible for that work. I will be reachable, for any question regarding this questionnaire, at the following email address: 882286@stud.unive.it

Thank you in advance for your time.

Next >

Figure 2 First page of the survey

3. Results

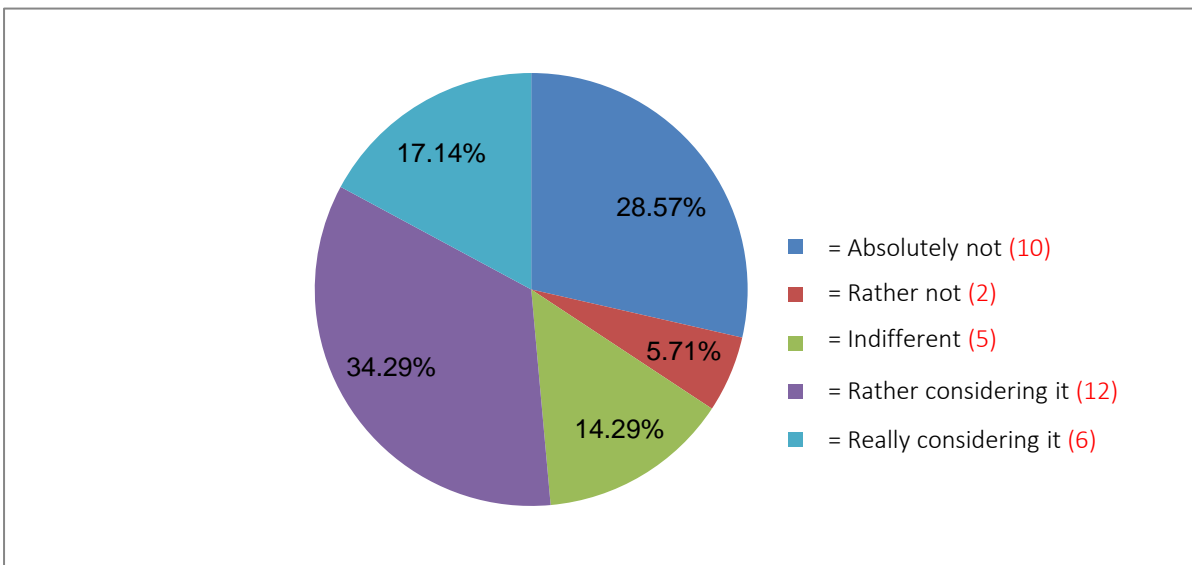
As explained previously, the very first question asked had for purpose to see if the students had previously travelled abroad for a long time. From the results obtained (48 answers), the Italian trip was the first long-term experience abroad for 26 participants. This indicates that from these people, their first time away from home was potentially a trigger in term of changing of habits regarding food, and maybe their perception for this latter subject evolved throughout their stay in Italy.

3.1. Before going on the exchange trip

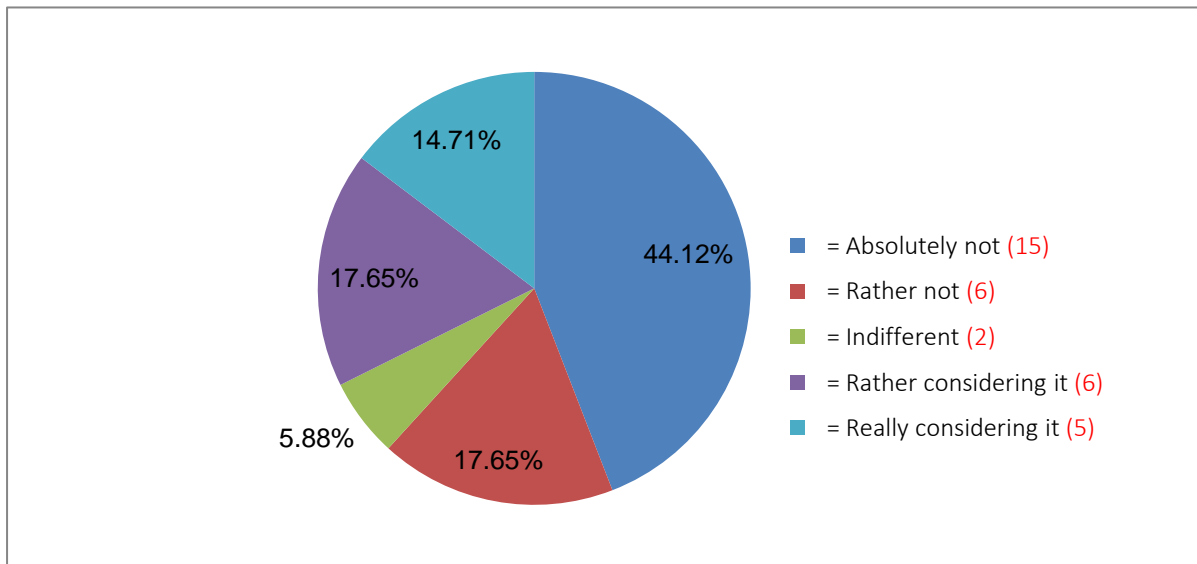
3.1.1. Origin of the food and impact on the environment (before going abroad)

The two first questions concerned how they considered the origin of the food they buy, and the potential impact(s) that the food they were buying could have on the environment. The scale a) was asked for these two questions.

Here, for these two questions, 35 and 34 people answered respectively. They were also invited to precise their choice if they wished to do so. For these questions, the following *graphs 3 and 4* were obtained.



Graph 3 Did the participants consider the origin of the food before buying it (before going abroad)?
(The numbers written in red represent the number of people voting for that value)



Graph 4 Did the participants consider the environmental impacts of the food bought (before going abroad)?

The results obtained above show a clear difference between the participants. Approximately a third of them (10 + 2), before going abroad, were not considering the origin of the food they were buying. It can also be seen that around 2 / 3 of them (15 + 6) were not considering the potential environmental impacts the food could generate. On the contrary, half of the participants (12 + 6) were aware of the origin of their food, while a third of them (6 + 5) were considering the possible impacts (the numbers written in the brackets are the number of participants voting for the value). For the first question mentioned, the average answer was given to be 3.06, for the second, it was 2.41 (on the scale from 1 to 5).

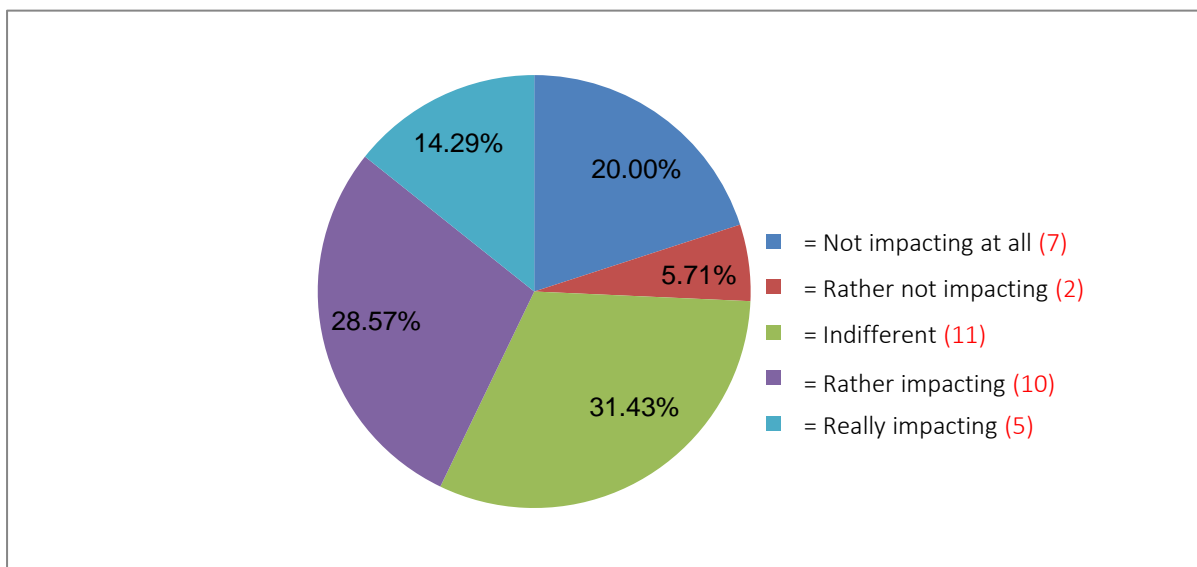
Regarding the consideration of the food bought, when asked to explain their vote, the regional / local, fair and organic products were mentioned (as a reason to buy or not an aliment). For some of the participants, the idea to buy an imported good was realised solely when no other substitution, adequate or quality option could be offered. the notions of organic, freshness and seasonal products were also a great deal for some attendants of the questionnaire. A common thing for all the people giving a reason to their vote was also the price of the good (especially when being a student). Indeed, sometimes, they could not afford to buy something grown locally, seasonal or fresh, because of the expensive price. This is a reason that comes back several times during the analysis of the results, and not only for this specific question.

For the impacts on the environment in general, several reasons of the vote of the participants were brought to the table. The knowledge of this issue came from books, documentaries, and interviews mainly. This can be explained by the level of education (the people answering that were coming from a master of environmental sciences or were currently doing a master about the environment). Most of them, being aware of the impact of food, said that they were doing, on a personal level, what they could to reduce their carbon footprint (CF) (which implies adopting a certain attitude towards food). Again, the

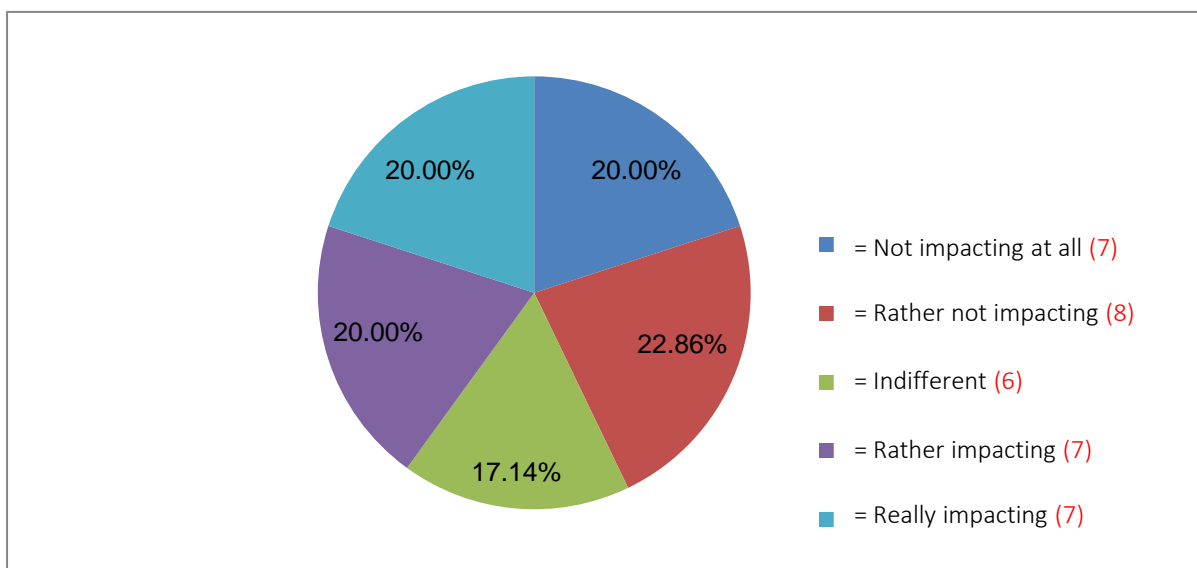
idea of eating local was mentioned many times, as well as reducing waste, loss and plastic to limit this problematic. However, some answers were stating that because of the limitation of the budget to do groceries, they were not able to limit their impacts. Other reasons given were that when entering a supermarket, the notion of environment and everything linked with it was simply “forgotten” or simply ignored.

3.1.2. Impacts on the biodiversity and landscapes (before going abroad)

The next two questions regarded the food eaten and if they were thinking about the impacts of such choice on the biodiversity, and how the food production was changing landscapes. The scale b) was used for both these questions (see 2.5. Collection of data). Once again, 35 participants attended these questions. They were also asked to explained their choices. Below are the results obtained.



Graph 5 How did the participants consider the impacts on the biodiversity because of the food eaten (before going abroad)?



Graph 6 How did the participants consider the impacts on the landscapes the food production has (before going abroad)?

These results show that they are more aware of the potential threats that biodiversity could face, than more general negative impacts like it was presented on the previous *graph 4*. Here, it is a fourth of the participants (7 + 2) who do not think biodiversity is impacted (or almost not), and 42 % (7 + 8) who do not really believe landscapes are impacted by food production. However, from these same questions, near half of them (10 + 5) were conscious about this problematic with the biodiversity, and 40 % aware of the modifications of the landscapes due to the food productions (7 + 7). Just like for the previous questions, it was possible to obtain the average answer. Here, regarding the biodiversity question, 3.11 was voted in average, and 2.97 for the question that was following it.

Regarding the potential impacts on the biodiversity, several reasons were given to explain the choice of the vote. The main ones were that the participants were aware of the negative effects that intensive fishery have on the fish population, thus on the ecosystem, species and marine biodiversity. Same thing with agriculture and the use of the pesticides. The overuse of plastic (in the food sector), ending up in the seas and oceans and destroying species and ecosystems was also an argument expressed about impacts on the biodiversity. Some people also mentioned the transportation, which makes sense when some goods are travelling thousands of kilometres sometimes, impacting the environment, hence the biodiversity. Finally, some people explained that they did not have any knowledge regarding this specific impact, which was the justification for the value of their vote (#1 or #2).

Regarding the impacts, change, modifications and eventually degradations of landscapes, the justifications of the votes of the participants were interesting to read. They can all be found on the *Appendix 4, Participant's vote justification regarding modifications of the landscapes*.

Our results show that not many people are either aware or are considering fully their actions regarding the food subject. Indeed, more of them tend to have voted for values #1, #2 and #3 than values #4 and #5, before going abroad.

3.2. *After coming back from the exchange trip*

This section of the report deals with the same four questions asked previously to the attendees, but this time about when they returned from their trip to Italy.

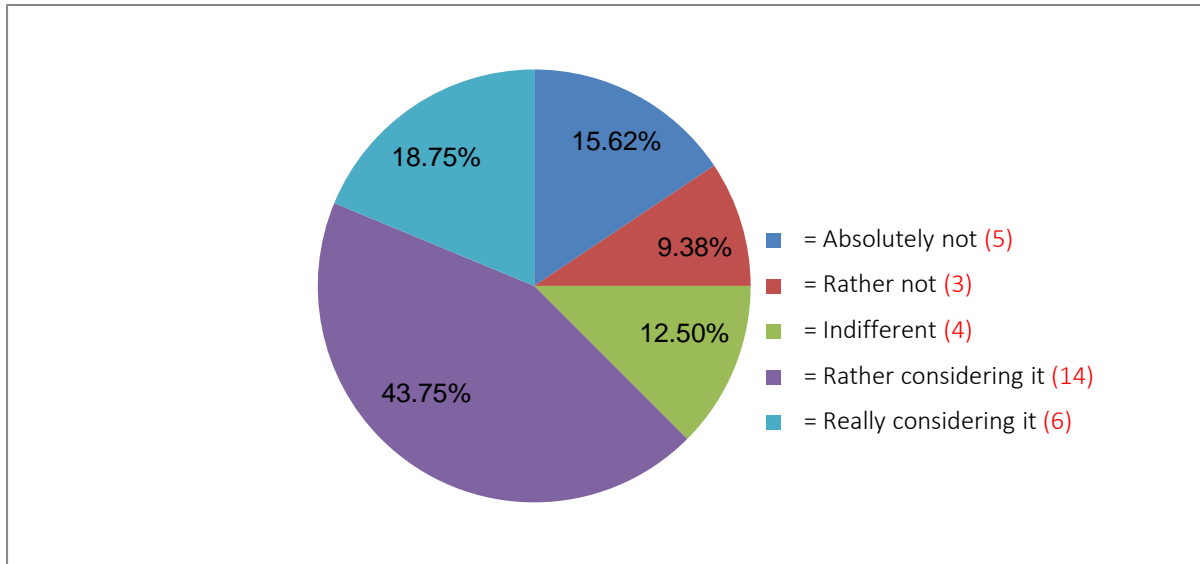
3.2.1. *Origin of the food and impact on the environment (after going abroad)*

The two questions that follow (which received 32 and 31 answers respectively) were asked, with the same scale a), from 1 to 5:

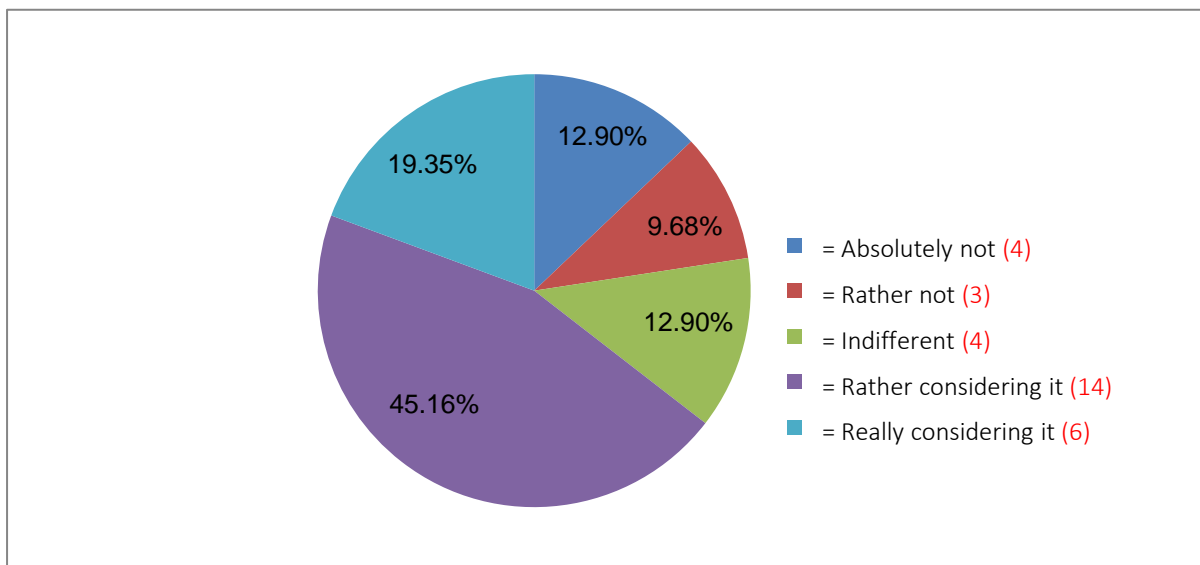
- Now that you are finished with your exchange, how much do you consider the origin of the ingredients when buying your food?;

- Now that you are finished with your exchange, how much do you consider the environmental impact when buying your food?.

The *graphs 7 and 8* were consequently obtained:



Graph 7 Did the participants consider the origin of the food before buying it (after going abroad)?
 (The numbers written in red represent the number of people voting for that value)



Graph 8 Did the participants consider the environmental impacts of the food bought (after going abroad)?

From the *graph 7*, not only a clear difference is noticeable between the participants but also from the results obtained previously on the *graph 3*. Now, 25 % (5 + 3) of the participants do not consider the food before buying it. It was near a third of them previously. Regarding the consideration of the environmental impacts before buying the food, it is slightly less that a fourth (4 + 3) of the people answering the survey that still do not acknowledge them. The percentage was about 66 % for the same question but with the

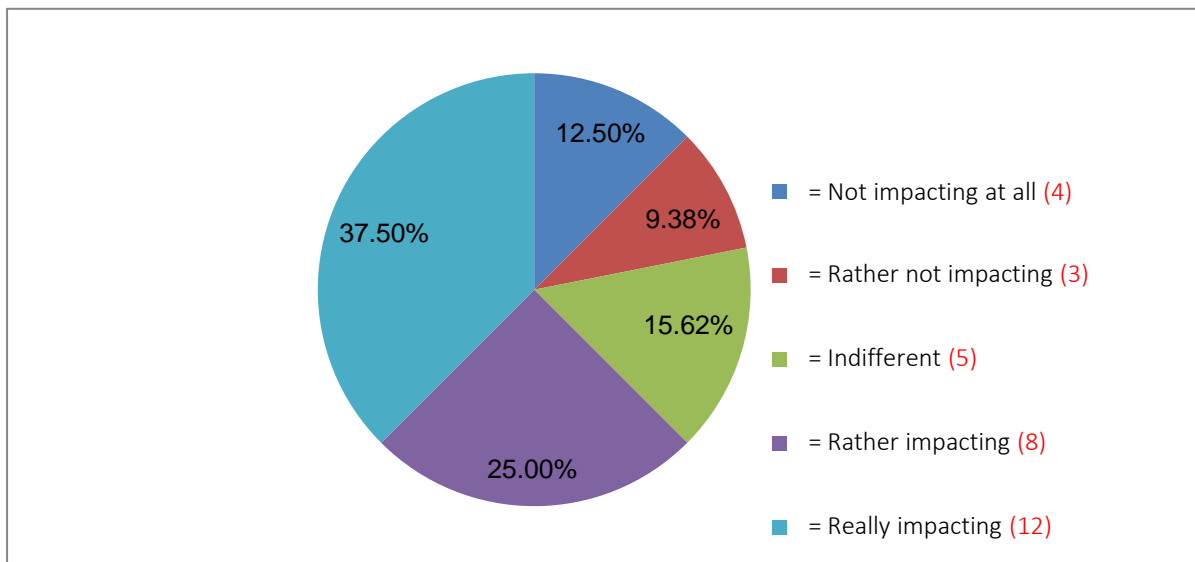
“before-the-trip” scenario. These two graphs show consequently a clear improvement regarding the awareness that the people who answered the survey have from now on, regarding the implications when buying food. For the participants understanding the problematic regarding buying local ingredients, it is now 62 % (14 + 6) that voted favourably on the scale. It was previously half of them, thus another positive improvement. Regarding the second question dealing with the awareness of the environmental impacts, the same results are obtained with nearly 62 % (14 + 6) of the people understanding the seriousness of the issue. They were solely a third of them previously. For the first question mentioned, the average answer was given to 3.41, for the second, it was 3.48. Thus, these two figures prove once again a net upgrade of the state of mind of the participants, between before and after a trip abroad.

When asked to justify their vote, the participants stated that it was because of how the food could be produced and that they wanted more and more food locally (regionally for most of the cases) grown. They want to eat food which was produced as close as possible from their home. Organic and local food is important for them, which explains the votes #4 and #5 that enhanced between the before and after trip to Italy. However, it is important to notice that some respondents, despite being totally aware of all the problems linked with non-local food, still buy some because of a tight budget or a limitation in the different options available. Finally, for some members of the survey, their view regarding buying local food did not change in respect with the trip.

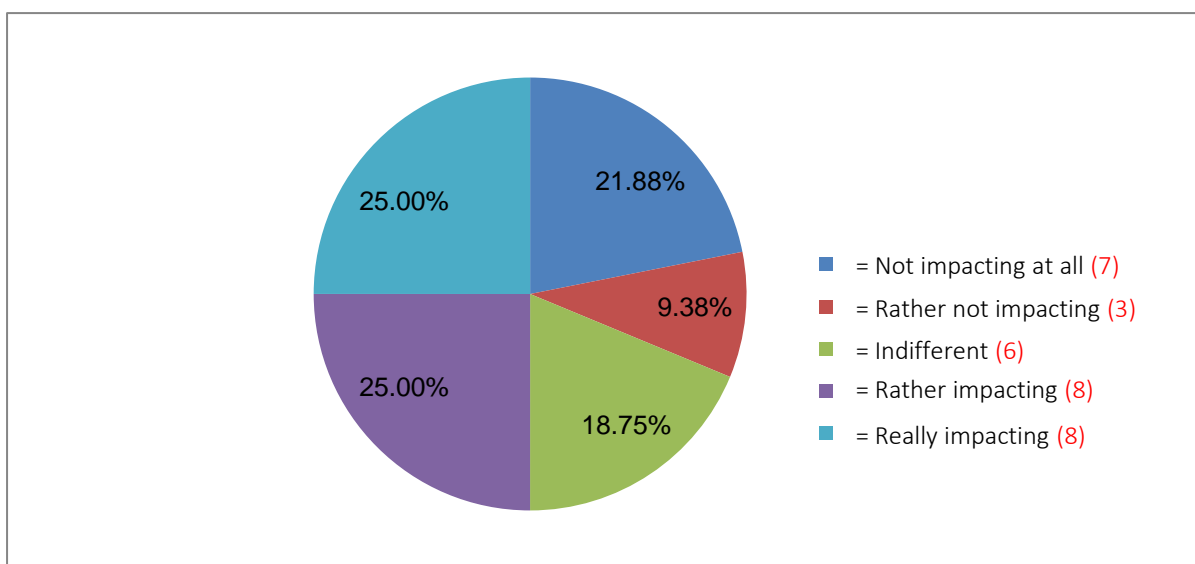
For the choice of the vote about the environmental impacts, the same reasons than given previously were brought up. It's about inorganic fertiliser, pesticides, GHG linked with the production, etc. Hence, many reasons given were saying that the people were aware and conscious of their acts when buying food (and any products in general). This is the reason some of them already changed their food habits and, their diets. On the contrary, some participants declared that they did not really think about the consequences of their actions when buying food.

3.2.2. *Impacts on the biodiversity and landscapes (after going abroad)*

The next two questions were regarding the food eaten and if they were thinking about the impacts on the biodiversity, and how the food production was changing landscapes. The same scale b) from 1 to 5 was asked for both these questions. 32 participants answered both the questions, and as always were invited to develop their ideas (that will be exposed like previously after the analysis of the results).



Graph 10 How did the participants consider the impacts on the biodiversity because of the food eaten (after going abroad)?



Graph 9 How did the participants consider the impacts on the landscapes the food production has (after going abroad)?

Just like it was seen on the two previous graphs (7 and 8), a positive evolution is noticeable. Here, regarding the impacts on the biodiversity, it is approximately 21 % (4 + 3) that do not consider that the food industry impacts it. A similar result obtained regarding the “before going abroad” scenario. For the landscapes and their transformation, it is 32 % (7 + 3) of the people taking the survey who do not seem to be worried about that problematic. A number less significant that obtained previously for the same question. However, it can be seen that more than 62 % (8 + 12) are aware of the threat upon biodiversity and exactly half of them (8 + 8) are acknowledging the problem regarding landscapes and the way they are modified due to the food industry. For the same questions, with a “before going abroad” scenario, the results obtained were less than 50 % and 40 % (respectively). The changes of mind regarding these problematics seems to take more extent after some time abroad, which can be seen as positive for the society and the environment in general, if actions are taken accordingly (from a personal point of view to

a broader one with companies and politicians). Again, the average results were possible to obtain: 3.66 for the first question and 3.22 for the second, while it was 3.11 and 2.97 before the time in Italy. A proof that an evolution in the perception of food regarding its potential impacts can be observed.

Regarding the explanation of the choice of the participants about their vote for the impact on the biodiversity, the same reasons were given than previously. Some of them, after living abroad, decided to eat more ingredients grown locally. They are aware of the impacts, but also know that from a personal point of view, it is very difficult (if not impossible) to change the way the system works. They are ready to change some of their habits to impact less, but they claim, rightly, that the industry in general should do so as well. The use of pesticide, the overfishing, the extreme pollution, ... all these problematics are raised, proving one more time that many of the respondents are aware of the current situation.

Finally, about the transformation of the landscapes, the same explanations were brought up than previously. Furthermore, some participants declared that the trip realised was not the cause of the awareness of this issue, as they were already conscious about this problem.

3.2.3. Recap of the results obtained

The *Table 1* below sums up the results obtained from the questions 5 to 12. These results show clearly how the view of the respondents of this questionnaire evolved over time, in particular during their stay in Italy.

Question	Absolutely not	Rather not	Indifferent	Rather considering it	Really considering it	Average of value chosen	Increase of the average of value chosen
How much do you consider the origin of the ingredients when buying your food?	28.57%	5.71%	14.29%	34.29%	17.14%	3.06	+ 11.4%
	15.62%	9.38%	12.50%	43.75%	18.75%	3.41	
How much do you consider the environmental impact when buying your food?	44.12%	17.65%	5.88%	17.65%	14.71%	2.41	+ 44.4%
	12.90%	9.68%	12.90%	45.16%	19.35%	3.48	
Question	Not impacting at all	Rather not impacting	Indifferent	Rather impacting	Really impacting	AV	Increase of the AV
How much do you think the food you eat is impacting biodiversity?	20.00%	5.71%	31.43%	28.57%	14.29%	3.11	+ 17.7%
	12.50%	9.38%	15.62%	25.00%	37.50%	3.66	
How much do you think the food you eat is impacting and changing landscapes?	20.00%	22.86%	17.14%	20.00%	20.00%	2.97	+ 8.4%
	21.88%	9.38%	18.75%	25.00%	25.00%	3.22	

Table 1 Recap of the results obtained from the survey

The yellow cells represent the answer given for a question "before going abroad". The green cells are for "after going abroad".

An evolution is clearly noticeable, as for all the questions asked, the perception and consideration increased. By comparing the average of value chosen, some interesting results can be seen. The second question, regarding the consideration of the environmental impact when buying food, is the one which has increased its value the most after the stay abroad (+ 44.4%). On the contrary, the question four, dealing with how much the respondents think the food they eat impacts landscapes, is the one increasing the less, by + 8.4%. Both the questions one and three report a slight increase, respectively + 11.4% and + 17.7%.

3.3. *The relationship with food*

On a more curious and jovial note, it was asked to the participants at the end of this questionnaire, some information regarding their personal relationships with food, especially when they were abroad.

To start this less “substantial” part, it was first asked if they tried specific local food and dishes, made of local ingredients when they were living in Italy. From the 27 responses collected, 25 (92.6 %) of them answered affirmatively. Solely for curiosity, the attendees of the survey were invited to give a few examples of these Italian dishes tried. Evidently, the main answers were about pizza, pasta, pesto, some local cheese and of course, alcohol (with some wines and liquors). Some of their answers are seen as follows:

“Bigoli, Lasagna, Frutti di Mare, Pizza --- (26 – 30 years old, male, one semester spent in Italy, in the Veneto region).”

“Pizza, pasta, gelato and some specific food --- (21 – 25 years old, female, one year spent in Italy, in the Veneto region).”

“Pesto, spritz, Napolitean food --- (21 – 25 years old, male, two years spent in Italy, in the Veneto region).”

The full list given by the respondents can be observed on the *Appendix 5, Italian dishes tried by the participants*. The Venetian influence can easily be noticed from these answers (Spritz, cicchetti, bigoli). Furthermore, they were also invited to describe, what was for them, a typical Italian dish. Once again, the influence of the Veneto region is blatant:

“Aperol spritz and cicchetti --- (21 – 25 years old, male, two years spent in Italy, in the Veneto region).”

“Spaghetti pomodoro, lasagna di radicchio, cicchetti and tiramisu --- (21 – 25 years old, female, two semesters spent in Italy, in the Veneto region).”

“Fish with summer vegetables sweet red wines with cheese and cold cuts (especially air-dried ham and salami) on cicchetti --- (21 – 25 years old, male, one semester spent in Italy, in the Veneto region).”

For more, see the *Table 6* in the *Appendix 6, Participants’ typical idea of Italian food*. This certainly comes from the almost unanimity (42 out of 44) of the participants of the survey stating that they lived in this region during their time in Italy. Their answers can be linked without difficulty to what they tried while being abroad as well as with the cliché that many people could have about Italy, its food and specialities. Without any surprise, the top three meals the most cited were pizza, pasta (both of them were mentioned almost every time) and alcohol. Pesto, gelato, cheese and fish dishes were also brought up several times.

Regarding the local dishes and food tried, it was asked to the respondents if they kept cooking and eating (thus buying) these ingredients, despite not being available locally. This implied consequently the importation of the foodstuff, having therefore a certain environmental impact.

From the 20 answers collected for this question, most of the former students stopped eating the specific Italian food that they discovered and tried while being abroad (because they could not find the appropriate foodstuff). For those who kept eating it, many decided to substitute the ingredient not being available locally with something more accessible in their region:

“I am cooking the dishes I can find ingredients for here, or I improvise and replace the ingredients I don't have with something local --- (21 – 35 years old, female, two semesters spent in Italy, in the Veneto region).”

“Once or twice, I tried to recreate the dishes. But living in Italy I understood that the most important part of the dish are the ingredients. In my hometown we do not have the same ingredients therefore after I tried to recreate a dish once, I understood it would never taste the same --- (21 – 25 years old, female, two years spent in Italy, in the Veneto region).”

“I will try to find the ingredients, if it is not available, I will try to substitute ingredients --- (26 – 30 years old, male, two years spent in Italy, in the Veneto region).”

More of these answers are found in the *Appendix 7, Did the participants keep buying not local, Italian ingredients?*. Evidently, for the people who kept eating this Italian food (and who can blame them?), it was because they liked these Mediterranean flavours, the diversity of meals possible to cook with pasta, pizza and the richness of the ingredients used.

The last main question from this questionnaire was to see if after going home, the participants noticed a change of food habits about themselves. 24 of the participants (out of the 32 who saw that question) agreed to share their personal experience.

Some participants preferred, after their time abroad, much more local food (from their own country, region and sometimes village). Some of them decided to support more local agriculture and farmers near their household:

"[...] I could say I appreciate the local food much more now. Pizza as an example is really different here and compared to the Italian pizza is quite bad --- (26 – 30 years old, female, one year spent in Italy, in the Veneto region)."

Another idea to note is that for some of the students, Italian food was cheaper than in their home country (Austria or Scandinavian countries for examples):

"Food in Austria is more expensive than in Italy, so I see that I cannot afford the food of the same quality here as I could in Italy (i.e., I have to buy cheaper cheese/cannot afford the bioproducts every time I shop etc.) --- (21 – 25 years old, female, two semesters spent in Italy, in the Veneto region)."

Moreover, a very important food habit that emerged to some of the participants is that they started to eat less meat, more vegetables and fruits, and that they started to adopt a diet more plant-based oriented:

"Yes. Less buying of red meat, more vegetables from local markets and farmers --- (26 – 30 years old, female, two years spent in Italy, in the Veneto region)."

"I started to eat more plant-based food --- (21 – 25 years old, female, two semesters spent in Italy, in the Veneto region)."

"Yes, I no longer like red meat, prefer more vegetables and, in general, prefer fruit and vegetable options available in Italy --- (21 – 25 years old, female, two years spent in Italy, in the Veneto region)."

This could be explained by the freshness and availability of many local foodstuffs in Italy, relatively cheap that help people to start eating differently, or at least more in a more diverse way. Moreover, several participants declared being more aware of the impacts that food has on the environment and try to mitigate them when buying their ingredients. Obviously, for most of them (if not all), they stated missing Italian food especially cheese, vegetables and the famous Italian pizza!

These answers are found on the last appendix of the report, *Appendix 8, A change of food habits from the participants?*.

3.4. *An evolution in the food perception?*

My first finding regards the consideration of the origin of the food bought. From the before- to the after-trip experience, it can be seen that the percentage of people voting that they do not consider it decreased by nearly 10 %. Indeed, it went from approximately 30 % to slightly above 20 %. The people being indifferent to this problematic stagnated. And the participants saying that they are careful about this topic increased by 14 %. This positive evolution can be observed similarly with the question regarding the consideration of the environmental impacts about the food bought. Before going abroad, it was almost 60 % of the participants who stated not considering this problematic. After the trip, less than 20 % of them kept this state of mind. Thus, they were three times less not considering these environmental impacts when buying food. This indicated certainly an evolution of behaviour towards the food topic in their life. On the other side, before moving abroad, about 35 % were conscious and considering the environmental impacts linked with this topic. Afterwards, they were 68 %. This means the number of people aware of this doubled.

My second finding regards the consideration of the impacts on the biodiversity because of the food eaten. Again, an evolution can be observed. However, this is less obvious than for the two previous questions. It went from 22 % of respondents thinking the impacts were non-existent (or negligible) to 18 %. And it went from 46 % of people, before the time away from their home country, to acknowledging potential impacts on the biodiversity due to food, to 66 %. The last question of this part of the survey dealt with the consideration of the impacts of the landscapes that the food industry could have. Yet again, a positive improvement in the behaviours can be noticed. It decreased from nearly 40 % of participants not thinking there was a serious threat with these impacts to 28 %. Furthermore, the people considering that there were real danger and impacts on the landscapes increased from 43 % to 54 %. This shows a growing interest regarding these serious problematics linking food (and its industry) with the environment and the nature in general.

All these modifications of the way these students perceived their food can be explained with the justifications given previously, both in this part of the thesis and in the corresponding appendices. Consequently, to answer the problematic of this thesis, it can be affirmed that after a certain time abroad (at least three months), the perception that people could have about food evolved, in a “positive way”. Indeed, their understanding and acknowledging of the environment is seen to have increased. This is observed from their vote to each question (and the evolution from the before- to after-the-trip scenario) as well as from the justifications and comments given. All the results to the questions increased (with the scale used). The consciousness of the actions and considerations were more developed, towards an environmental point of view. This is the reason a “positive” evolution can be noticed. They declared being

more aware of the environmental impacts that the food they buy (thence the food industry too) can have. A majority of them said that they were ready to change (if not changed already) some of their food habits to improve their own environmental impact and carbon footprint on the planet. This means they changed their diet, started to buy food grown locally and substituted ingredients when they were not available without a big environmental cost. Their time in Italy helped them to change these habits, thanks to the diversity and freshness of feedstuff available in this country. Evidently, the sole fact of being abroad is not what changed them, but it at least triggered some options and behaviours to act more accordingly with their environmental concerns. Evidently, people's view about food evolves and not uniquely because of a time spent abroad. An evolution can certainly be drawn after the encounters, experiences and even differences of generations (Ellena et al. 2012). Furthermore, the lifetime experience is also a big cause that make everybody change their food habits. Below are some testimonies and comments that the respondents shared, at the end of the survey. As it can be seen, they are summarizing quite well the different concerns expressed throughout the results obtained in general. From the environmental point of view to the economic problems that some people can have, limiting the possibility for them to choose more diverse food while being more respectful to the nature than other types of feedstuffs. Results also indicate (from several justifications given) that the participants prefer now to eat and consume local and from small-distance scale ingredients.

"I think humans should be able to eat any kind of food as long as they respect the regulations for the specific product. I don't mind if people eat eccentric food but the production of that food should not affect the environment in an unrepairable way --- (26 – 30 years old, male, one semester spent in Italy, in the Veneto region)."

"Food options are limited by availability and money. You can try to get something more environmentally friendly but it is unfortunately a more expensive option --- (21 – 25 years old, female, two years spent in Italy, in the Veneto region)."

"The food culture in Italy impressed me. Italians seem to care more for well-tasting food, so they have more of it. Also, farmers markets are more affordable in comparison to supermarkets than in Germany. So local quality to a fair price is possible. When I try to recreate food here in the same quality, it is way more expensive --- (21 – 25 years old, male, one semester spent in Italy, in the Veneto region)."

"The more exposure and travel, the more I realise the effects of the different types of food impact on the ecosystem --- (26 – 30 years old, male, more than two years spent in Italy, in the Veneto region)."

Furthermore, the two citations that follow come from the participants themselves, and describe well what was observed in the previous researches from Unuan, in 2005 and Thomas et al., in 2021:

“[...] the variety of foods that I eat is much larger than before --- (26 – 30 years old, male, two years spent in Italy, in the Veneto region).”

“[...] I started to pay attention about the impact of each food on environment and on how it was produced --- (26 – 30 years old, female, two years spent in Italy, in the Veneto region).”

It is also important to notice some unexpected results. Indeed, despite having a perception and food habits that evolved for almost all of the people answering the poll, some of them indicating that after going back to their home country, they stopped eating what they were used to (and liked to) eat while in Italy. This was explained by several reasons, the main ones being the non-availability, the price or the non-locally grown ingredients. From these results, it can therefore be seen that it looks easier to eat more environmental-friendly in Italy, than in other countries. Other citations from the respondents can be seen as follows:

“No, I can’t find it around where I live right now. --- (21 – 25 years old, female, two semesters spent in Italy, in the Veneto region).”

“I started to buy organic foods, especially vegetables --- (21 – 25 years old, female, two spent in Italy, in the Veneto region).”

“[...] I bought more local foods and because fruit and vegetables tasted so good in Italy, I tried to raise my taste standards here, although it cost more here to have well-tasting ingredients --- (21 – 25 years old, male, one semester spent in Italy, in the Veneto region).”

The results obtained and testimonies given consequently shown that, potentially after some time in Italy, being close to fresh, locally grown and environmental-friendly food, students could see an evolution in food perception and consumption.

4. Critical discussion

The results from this research work indicate that an evolution was observed, for the majority of the participants of this study. They claim being more aware of the environmental impacts and the degradation of the nature that the food industry brings. Their understanding and acknowledging of the environment are seen to have increased. The consciousness of their acts and considerations were more developed, towards an environmental point of view. Some of them even started to change their food habits, towards a diet more plant-based oriented. This evolution of perception comes from the Italian culture and food habits mainly (availability and freshness of the ingredients, cheap price, ...) as well as from the encounters and eating routine while living abroad. These results were also in line with the findings from a recent study of Mohamed Bilal Basha and David Lal, in 2018 and by Randoni and Grasso, in 2021.

Before conducting this research study, a hypothesis was that some kind of evolution in the food perception after living in Italy was to be expected. It was estimated that at least half of the respondents were to perceive a change in their habits and would potentially modify their behaviour in accordance with a more environmental-friendly way to consume food. This could be due mainly to the way Italian people are dealing with food, as it has a certain history and heritage, that could be seen more “developed” than in other parts of the world. The data obtained suggest that this perception indeed evolved, in a positive way, to most of the respondents of the survey. The results exceeded (in a good way), the initial expectations of this work, as the evolution seen touched almost everybody, and not simply by little. Indeed, it has been seen that two to three times more people had their awareness raised for some questions and that after the time abroad, almost each participant of the survey was starting to be careful about his actions, potential impacts and CF. In the previous researches and theories seen with the literature review, it was stating that in general people’s view towards food is evolving, especially compared to when they were younger (Unuan, 2005). Furthermore, it was indicating that in general, students and the youngest generation tend to be more attentive and conscious regarding the environmental problems the Earth is facing (Thomas et al., 2021). It can be seen therefore that an education is primordial to open the eyes for the people not aware yet of the actions they are taking, to reduce each and everyone’s CF.

Another outcome of this research work is that some people changed their food diet. At least eight people declared they eat now much more fruits and vegetables, and sometimes even stopped eating red meat, or meat in general. A finding that was also mentioned in a study published in 2020, by Moosman. Several answers collected were indicating that a vegetarian diet, and sometimes a fully plant-based diet was adopted either during or after the exchange program. This idea represents well again the evolution underwent by the participants after several months abroad. The remarks given by the respondents during the questionnaire show that potentially, the effect that food has on the environment, was an issue for them, as they wanted to mitigate their own impact on nature.

The experiment delivers a new insight into the relationship of food habit with the awareness of the environment and time spent abroad for studying. The data collected contribute to a clearer understanding of how living in a foreign country and being impregnate of a new culture can help changing food diets and bringing a certain evolution in a food perception, from before and after living in Italy. From one semester spent abroad to several years, the respondents declared almost unanimously that their perception towards food evolved (in particular regarding the environmental sphere). The students who decided to stay in Italy after their studies also decided to keep their habits developed while studying in an Italian culture. This shows that the experience abroad, and especially their food tastes have been impacted. The answers received and the justifications collected demonstrated the evolution of the food perception.

4.1. Limitations

Before concluding this thesis, it is important to acknowledge the limitations encountered with this study. First of all, the number of people answer the questionnaire was small. Therefore, having more participants would have been interesting, and drawing conclusion from this sole study is not applicable. Then, the sample size (to answer the survey) was limited to a very specific group of people. Thus, it restrains the generalizability of this work. Furthermore, a vast majority of the respondents studied in the Veneto region. It would have been interesting to receive more diverse answers, with people having studied in different Italian regions. This could have potentially affected the results. Finally, having a more diverse education from the people taking the questionnaire would have been appreciated. Indeed, many participants had (as their highest educational degree), a master. And a non-negligeable part of them were coming from a field of science (and sometimes environmental sciences). Consequently, they were already familiar with the problematics asked. Having people coming from more diverse disciplines would have been helpful to see if this food perception's evolution could have touched everybody.

Conclusion

Our results show that nearly all of the respondents noticed a positive evolution of food perception. Indeed, their understanding and acknowledging of the environmental issues linked with the food industry is seen to have increased. It is therefore possible to conclude that international experience supports the evolution of food perception. Indeed, they tend to be more aware of their actions before and during the purchase of food. Their consciousness regarding their thoughts, ideas and acts about the food topic changed, in a better way regarding the protection of the environment and the nature. They agreed that several problems were linked with the world of food production, and were ready to act and think accordingly, to limit their own impact regarding this topic. Furthermore, it can be noted that several aspects are influencing future developments of the diet, after returning home. The mitigation of pollution, the seasonality and localness as well as the health point of view and animal-welfare are the main ones. However, the availability of the ingredients, the freshness of them as well as their price are also important factors for the participants to consider before buying their food products.

To better understand the implications of these results, potential future studies could focus on the same topic but with a time spent abroad elsewhere than Italy. For example, would same results would be obtained from an international experience in France or Spain, as the cultures of these countries are somewhat similar. Moreover, would going abroad in Asia or Eastern Europe bring different results, as the food habits there are very different with what happens in Italy. Furthermore, studies with a bigger number of participants would be helpful to corroborate the results and proportions of evolution achieved within this thesis. Moreover, studies focusing specifically on people who decided to change their diet after living abroad (and especially a plant-based diet) could be interesting to carry out, to see any possible links and relationships with the work realised here. Comparisons could also be interesting to dig in, like the evolution of perception with people coming from small villages and big towns, from different regions, from the income earned, if the person is single or in couple, or if the person has children or not, for examples. Finally, further researches are needed to determine more in details the causes and effects of these perceptions evolved, found in this thesis.

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Appendices

Appendix 1, Questions asked to the participants

1. Was Italy your first big trip (more than a month abroad)?

Your trip in Italy

2. For how long did you study in Italy?
3. In which region of Italy did you study?
4. When did you stay in Italy (from which month-year to which month-year)?

Before going on your exchange trip

5. Before going abroad, were you considering the origin of the food you were buying?
6. Before going abroad, were you considering the impact that the food that you were buying could have on the environment?
7. Before going abroad, how much do you think the food you eat impacted the biodiversity?
8. Before going abroad, how much do you think the food production was impacting and changing landscapes?

After coming back from your exchange trip

9. Now that you are finished with your exchange, how much do you consider the origin of the ingredients when buying your food?
10. Now that you are finished with your exchange, how much do you consider the environmental impact when buying your food?
11. Now that you are finished with your exchange, how much do you think the food you eat is impacting biodiversity?
12. Now that you are finished with your exchange, how much do you think the food you eat is impacting and changing landscapes?

Your relationship with food

13. While living abroad, did you try specific local food, made of local ingredients?
14. If yes, after going back home, did you keep buying / cooking / eating this food even if the ingredients used were not available locally (e.g., from your home country)? Please develop your answer here.
15. After going home, did you notice any change of food habits about yourself? If yes, please develop your answer here.
16. What is for you a typical Italian food? (It can also be a drink, pastry, ...).

Demographic questions

17. From which country do you come from?
18. Please select your age group.
19. Please specify your gender.
20. Please select your highest educational degree.
21. Any comment you would like to add that is important for you to precise or develop (what you think or believe, something from your own experience, ...).

Appendix 2, Nationality of the participants

Answer	Count
Azerbaijan	2
Chile	1
Egypt	2
France	2
Belarus	2
Greece	1
Germany	2
Czech Republic	1
Iran	1
Japan	3
Kazakhstan	2
Kenya	1
Netherlands	1
Russia	2
Lithuania	1
Sweden	2
Zimbabwe	1
Total	27

Table 2 Nationality of the participants

Appendix 3, Field and speciality of the degree of the participants

Answer	Count	Frequency
Master in Sustainable Development	1	3.85%
B.Sc. Bio Sciences	1	3.85%
Behavioural science	1	3.85%
Climate Change	1	3.85%
Computer Science	1	3.85%
Comparative International Relations	1	3.85%
Degree of arts	2	3.85%
Economics	3	11.54%
Economics and finance.	1	3.85%
Environment	1	3.85%
Environmental sciences	3	11.54%
Finance	2	7.69%
Humanities	1	3.85%
HR	1	3.85%
International liberal arts	1	3.85%
International relations	1	3.85%
Joint International Master in Sustainable Development	1	3.85%
Liberal arts	1	3.85%
local development	1	3.85%
Linguistics	1	3.85%
Master in environmental science	1	3.85%
Total	27	100.00%

Table 3 Field and speciality of the degree of the participants

Appendix 4, Participant's vote justification regarding modifications of the landscapes

The exact question to collect the following answers was:

Before going abroad, how much do you think the food production was impacting and changing landscapes?

After voting on the scale b), they were invited to precise their mind and give a justification for their vote. Below are the reasons of their choice (for the people who took time to give a justification).

Answer
By changing the natural landscape to agriculture land or industrial land for food production.
Food industry occupies a lot of territory across the couch which has to be modified for production.
I was thinking only about the agricultural use of the land that previously was a part of the system but destroyed by humans to get benefit from the land.
I knew that it was a problem worldwide, especially some countries have cultivated their lands too much not only for themselves but also for exports.
I was more focused on climate change and industrial effects, instead of food.
It impacts and changes a lot, because people need area to grow the food for themselves and for animals that they consume.
Land-use change/deforestation for agriculture is a big issue.
Never thought about it.
Since every food production industry needs space, for building the place the need to destroy a biodiversity even though it is a small biodiversity.
The food was not produced in consideration of its environmental impact. Major areas of land were not utilized properly and limited water sources were misused.
The use of water and energy is huge and deeply impact our global environment.
The agriculture is together with urbanisation the main landscape changing factor...
I was pretty aware, but the scope widened when I was in Venice.
You want wheat - you use the field, dig it etc.

Table 4 Participant's vote justification regarding modifications of the landscapes

Appendix 5, Italian dishes tried by the participants

Answer
Bigoli, Lasagna, Frutti di Mare, Pizza
Eating pasta, more healthy foods, the size of the dish is smaller compare to the home country, daily meals are reduced to one or two meals per day.
I ate more seafood in Venice.
I tried some local foods as panzerotti, fried pizza.
Local wine and beer, cicchetti, local cheese.
Lasagna
Pizza, pasta
pizza, pasta, piedina
Pizza, pasta, gelato and some specific food
Pasta
pesto, spritz, napolitean food
Polenta, fish dishes
Risotto, Tiramisu, pasta, pizza
Radicchio for example.
Spritz, Venetian wine, polenta, radicchio
Vegetables and spices

Table 5 Italian dishes tried by the participants

Appendix 6, Participants' typical idea of Italian food

Answer
Aperol spritz and cicchetti
Fish with summer vegetables sweet red wines with cheese and cold cuts (especially air-dried ham and salami) on cicchetti
Food: pasta, cheese, tomatoes, arugula, strawberries, spritz
lasagne and pasta in every way
Parmigiana
pasta, gnocchi, spritz
Pasta Bolognese. Brioche. Little coffee shot
Pasta, Campari, etc..
Pasta, lasagna
Pasta, lasagna, pizza, tiramisu, gelato,
Pasta, pizzas, spritz, risotto
Pasta, Risotto, Focaccia, Pizza
pizza and pasta
Pizza and pasta for sure! My favourite drink is Aperol Spritz
Pizza diavola
Pizza, pasta, Aperol spritz
Pizza, fish and seafood, pasta
Pizza, pasta
Pizza, pasta, gelato, lasagna, spritz, prosecco
pizza, pasta, pesto, spritz, cicchetti
Pizza, pasta, risotto, truffles, focaccia, lasagna
Pizza, Pasta, Wine
Spaghetti pomodoro, lasagna di radicchio, cicchetti and tiramisu
Spritz
Spritz, lasagna, pasta

Table 6 Participants' typical idea of Italian food

Appendix 7, Did the participants keep buying not local, Italian ingredients?

Answer
Actually, I couldn't forget the flavour of Pesto, so I tried to find it online and went to a specific store to get it.
I am still in Italy and still eating it
I am cooking the dishes I can find ingredients for here, or I improvise and replace the ingredients I don't have with something local.
I don't think I will try them in my country
I tried to buy more Italian food
I will try to find the ingredients, if it is not available, I will try to substitute ingredients
I've tried to recreate some Italian dishes in my country but the result is not the same. Besides the mastery of the chef, the quality of some Italian products is way better, for example mozzarella cheese, the fresh pastas and the tomato sauce.
Majority of vegs and fruits are imported in my home country
No
No, I can't find it around where I live right now.
No, my diet slightly changes, but some preferences are still there. So, I can buy the ingredients imported from the country I was living in or from other places
Not really. I usually ate the local foods in restaurant. My own cooking stayed rather boring with generic ingredients.
Once or twice, I tried to recreate the dishes. But living in Italy I understood that the most important part of the dish are the ingredients. In my hometown we do not have the same ingredients therefore after I tried to recreate a dish once, I understood it would never taste the same
pasta with pesto, special cheeses
When I buy wine, I try to buy Italian ones, especially from Veneto
Yes
Yes, especially the wine. And if vegetables are not in season in Austria, I try to buy the supplies from Italy.
Yes. I cook more types of pastas now.
Yes. The challenge was getting pasta sauce varieties like in Italy for instance
Yes. The explanation is just that I liked the dish and of course I wanted to eat it again. So sometimes I had replaced some of the ingredients and it was okay.

Table 7 Did the participants keep buying not local, Italian ingredients?

Appendix 8, A change of food habits from the participants?

Answer
A little bit. I could say I appreciate the local food much more now. Pizza as an example is really different here and compared to the Italian pizza is quite bad.
After Italy I always eat breakfast, lunch and dinner
Food in Austria is more expensive than in Italy, so I see that I cannot afford the food of the same quality here as I could in Italy (i.e., I have to buy cheaper cheese/cannot afford the bioproducts every time I shop etc.)
I ate more rice, but missed the Italian cuisine and looked for Italian stores when I could
I cook Italian food more frequently and due to my Italian host mother uses local food and support the farmers around the house, I try to do so.
I noticed that I'm more into wine and cheese. Missing the time of study abroad
I really miss the grounded cheese.
I started to buy organic foods, especially vegetables.
I started to eat more plant-based food
just when I have my meals and that I eat way more pasta and pizza than ever
No
No
No, I didn't have any changing on my eating
Not really
Not really...
Yes
Yes, I started to pay attention about the impact of each food on environment and on how it was produced
Yes, I bought more local foods and because fruit and vegetables tasted so good in Italy, I tried to raise my taste standards here, although it cost more here to have well-tasting ingredients.
Yes, I no longer like red meat, prefer more vegetables and, in general, prefer fruit and vegetable options available in Italy
Yes, more fresh vegetables
Yes, the variety of foods that I eat is much larger than before.
Yes, use of spices for making soup. Influenced by living with Immigrants from Asian countries
Yes. First of all, I started to cook more by myself. And secondly, I got used to eat a lot of vegetables.
Yes. Less buying of red meat, more vegetables from local markets and farmers. Not buying any of the vegan-friendly milk

Table 8 A change of food habits from the participants?