

Lockdown, locked up: How have lockdowns changed place attachment of (daily) activity spaces for undergraduate students since the outbreak of COVID-19?



Photograph: Allin-Khan (2020)

BACHELOR'S THESIS

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WORD COUNT: 6461

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Abstract

Undergraduate students are typically a mobile and social group of the population. Nevertheless, the restrictions in mobility, activities and events as a response to the COVID-19 pandemic have made this difficult. This paper aims to uncover how place attachment of daily activity spaces has changed for European undergraduate students since the coronavirus pandemic. Ten in-depth interviews were carried out after participants sketched a mental map and took photographs of their daily activity spaces. Thematic and content analyses were carried out. The findings of this mixed-methods research suggest that students yearn for action and social interaction, feel neglected by their government and feel like they have lost out on the best time of their lives. Students are coping with this loss by finding activities that distract from the pandemic, relying on their social support network and holding on to the memories that they have made. Many seek solace in nature, or simply being outdoors. Specific places have therefore become less relevant whereas the notion of being outside has become fundamental to life. More support and recognition from the government and universities should be given to undergraduate students in this difficult time.

Introduction

BACKGROUND

Before the COVID-19 pandemic life had gradually become more mobile to the point where many people could travel almost anywhere without large preparations, such as visas, and at low costs. Many students study abroad or in a different city than their hometown. Between 2013 and 2018 the number of mobile tertiary students in the EU who came from abroad increased by 36% to 1.3 million (Eurostat, 2020). When national governments imposed lockdowns following the outbreak of COVID-19, mobility changed dramatically for many young people in Europe, who have grown up in a global, interconnected world, for the first time. Suddenly, people are confined and restricted in their movement. For students, who are mobile and have large networks, favourite places and meeting points have fallen away. What impact does that have on place attachment? Do undergraduate students miss the places they cannot go to anymore or have they lost meaning for them? Growing tensions have resulted from the government holding students accountable for spreading COVID-19 due to their carelessness (Sanderson, 2020). Students feel neglected and treated unfairly as lockdown restrictions remain.

Young people's places are affected by lockdowns as much as, if not more than, those of other sub-groups of the population. Based on 60 in-depth interviews and months of observations, Gringsby (2009) confirms stereotypes and notions about students' behaviours, activities and identities. University has as much, if not more, to do with generating relationships or a (support) network as studying. These are important to have fun and generate a sense of belonging. Arum, Roska, Cruz & Silver (2018) demonstrate that, on average, undergraduate students spend three times the amount of time a week socialising as they do studying. Unlike graduate studies, which are ordinarily more time-consuming, there is a bigger focus on the 'student life' among undergraduate students.

Due to lockdown restrictions in group size, large parts of social networks were cut off. Besides mingling and partying, students generally engage in sports and extra-curriculars, and sometimes have part-time jobs (Gringsby, 2009). As universities and typical places were shut, places of belonging fell away for students. Elmer, Mepham & Stadtfeld (2020) suggest that students' networks had become sparser during the first months of the COVID-19 pandemic. The loss of social networks, (physical) interaction and emotional support convey worrying patterns in mental health. Levels of stress, anxiety, loneliness and depressive symptoms of students have increased since the pandemic. Spending the majority of the day confined at home can lead to decreases in social participation and life satisfaction (Ammar et al., 2020). Doing so in one room, which students typically rent, can only lead to worse outcomes. Being home alone without immediate family or friends might make students long for other places more. Implications could be related to learning about the significance of place attachment and how it can be used in a positive way, such as a return to a local perspective in a previously exponentially growing global world.

COVID-19 and the subsequent lockdowns have hampered mobility to an unprecedented extent. This investigation will focus on the relationship between the pandemic and places, with a particular focus on students. Although there are currently more people enrolled in university worldwide than ever before, research about the activities they carry out beyond classes, such as part-time jobs, extra-curriculars and hobbies, is limited.

RESEARCH PROBLEM

The aim of this investigation is to determine the effect of loss of places within activity spaces on students during lockdowns in response to the COVID-19 pandemic. The loss of place hereby refers to the unavailability or inaccessibility of a place that was previously entered and enjoyed by someone. Activity spaces are composed of the daily and irregular places that are visited for different periods of time, from a few minutes in the supermarket to weeks on a holiday. This leads to the central research question:

How have lockdowns changed place attachment of (daily) activity spaces for undergraduate students since the outbreak of COVID-19?

To answer this, the following sub-questions have been constructed: 1. What are the components of place attachment?, 2. What places constitute a student's daily activity space? and 3. How do place attachment and activity spaces relate to one another?. A qualitative mixed-methods research approach is implemented.

THESIS STRUCTURE

Following the introduction, the theoretical framework will present and explain theories and concepts related to activity spaces and place attachment. Expectations are based on this. This will lead to the methodology which comments on data collection, ethical considerations and data analysis. The results are divided into four themes: daily activity spaces of students, longing for activities, finding alternate activities and new priorities for place attachment. In the conclusion these will be rounded off, and recommendations as well as strengths, limitations and further topics of research are mentioned.

Theoretical framework

ACTIVITY SPACES

Activity spaces are the domain in which we live our lives. They can be mapped out in an activity space model to show where we spend our time and what places are of importance to us (Hirsch, Winters, Clarke et al., 2014). Daily activity spaces are those used in a typical, routine day, for example a workday (Sherman, Spencer, Preisser et al., 2005). During lockdowns, places which students visit regularly are greatly reduced and irregular places, such as holiday locations or festivals, are eliminated completely. The components of students' daily activity spaces referred to in the second sub-question change. When comparing a pre-COVID and COVID situation directly, a person might feel trapped or held back as the availability of places has decreased.

Mental maps are spatial perceptions that people have of places of interest (Götz & Holmén, 2018). Used predominantly in Behavioural Geography, mental maps are a form of qualitative data. They can be used to visualise activity spaces. Usually, people are unaware of the attachment they have to places in their daily activity spaces.

PLACE ATTACHMENT

Place attachment is a concept in Human Geography and Environmental Psychology. Broadly speaking, it is the relationship that someone has to a place and in which the place holds meaning for a person, be it emotional, cognitive or behavioural. Place attachment has been a relevant notion to humans over time and space (Lewicka, 2011). It is ubiquitous because it fulfils human psychological needs, like belonging (Scannell & Gifford, 2017). Places hold meaning for people due to the social features that occur there, such as community activities (Fried, 1963, as cited in Scannell, 2013). Similar to interpersonal relationships, the loss of a place can cause lasting psychological and cultural damage (Windsor & McVey, 2005). Whilst studying displaced Boston residents, Fried (1963, as cited in Scannell, 2013) found that the predominant emotion was grief, resembling the emotion experienced when losing a loved one. Grief might be overcome or become less intense over time (Maddrell, 2016).

The importance of place in place attachment has arguably been neglected in Developmental Psychology and Physical Geography and requires further study. Only recently have researchers begun to operationalise how much a place means to somebody and in what ways it does so. Place attachment has

firstly been implemented as an independent variable by Scannell & Gifford (2017). Reese, Oettler & Katz (2019) found that imagining the loss of a place of meaning through a disaster can decrease place attachment. Limited or no access to places of value or meaning during and since lockdowns might then decrease place attachment too, modifying people's emotions and identity in the long term.

THE THREE COMPONENTS OF PLACE ATTACHMENT

Place attachment has been conceptualised in numerous forms, most notoriously in Environmental Psychology by Scannell & Gifford (2010) who suggest a tripartite organising framework, consisting of person, place and process, all of which have further divisions. In response to the first sub-question, in this analysis, place attachment is divided into three components: the material, the personal and the social (visualised in Figure 1). This resembles Scannell & Grifford's (2010) model in the person and place distinctions. Nevertheless, there are substantial differences. The material domain is centralised around the physical characteristics of the place. Here, it is interesting to examine the influence of digitisation on physical places. The technological developments of the 20th and 21st century have induced a reduced dependence on specific locations. Secondly, the personal domain values the meaning that a place has to a person. This could be a fond memory that was formed in a place, but it is inherently individual and not related to interpersonal relations as in Scannell's & Grifford's (2010) model. Instead, the social domain relates to the meeting places which are of importance to students' social lives. Bars, clubs and associations constitute these. Naturally, the domains of place attachment are not exclusive, which is portrayed by the overlapping areas in the model. A sports club, for example, is a social place where students bond with others, yet it can also be a personal place where someone is aiming to do their best and achieve or where a specific memory of having won is set. All components of the model have emotional and behavioural factors, which is summarised by the process component in Scannell & Gifford (2010).

Places in the daily life of students involve around numerous points. These are in their activity space model which is denoted by the frame around the specific domains of place attachment in the conceptual model (Figure 1). Places of belonging and favourite places are categorised as places of high value in the model. These then have high place attachment. For students, these tend to be university or student bars, places of personal and social meaning. People might be attached to other places, relatively valuable ones, due to only a personal aspect, such as a shop where one bought an item that fulfils them. A particular café might be of relative importance to a student due to the food and drinks served but also due to the meeting place established there. Finally, places of low value, such as banks or supermarkets, are visited out of necessity and for a short period of time. Whilst they may not be considered very valuable, some might have material meaning to us, nonetheless. Why else would we prefer one supermarket over the other?

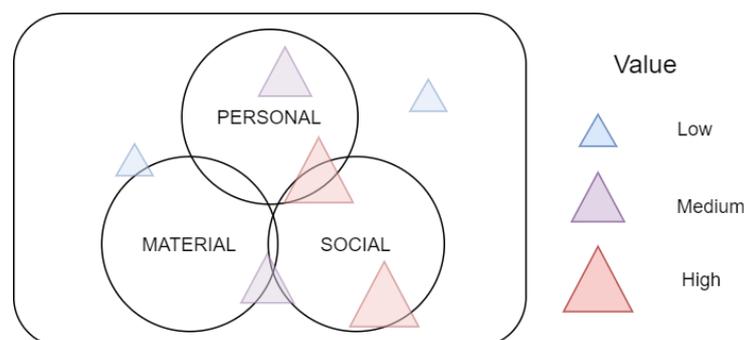


Figure 1. A model of place attachment within the (daily) activity space

EXPECTATIONS

Spending more time at home and having fewer options of places to visit, shrinks the (daily) activity spaces of students. Therefore, students might initially feel a form of grief for frequently visited places, materially, personally and socially. However, as the lockdowns have continued on for a year at the time of research, this may have been overcome for most students. Previously favoured places are no longer necessary for belonging and people lose their attachment to them. Students might assign less value to the material aspect of place in response to the availability of virtual meeting places and events. Alternatively, students might long for places more since so many are unavailable. The loss of the social meeting places must be especially difficult for students. Students could become more attached to outdoor spaces or even supermarkets, which can still be reached during lockdown. One realises that place attachment is fundamental to our lived experiences.

Methodology

A qualitative mixed-methods research design using thematic and content analysis was applied in order to capture the cognitive and emotional perceptions as well as the spatial elements of place attachment. Inspiration was drawn from Kevin Lynch's classic work 'The Image of the City' (1960) wherein Lynch asked participants to sketch mental maps of several American cities during an interview to exhibit important features of cities through the perception of participants.

DATA COLLECTION INSTRUMENT

For the present research, three steps were taken. Firstly, participants were asked to sketch a mental map of their (daily) activity space, including changes in their place attachment as a result of COVID-19. Concepts, such as place attachment, activity spaces and mental maps were defined prior to the data collection. The mental map should not have scalar measurements but rather give an impression of how mobile a person is and how valuable the places visited (or not visited) are. The participant was thus reassured that no accurate drawing, but a rough sketch, was expected. These mental maps were used to formulate some of the probing questions prior to the interview. Secondly, participants were asked to take a photograph of a place or numerous places that is/are valuable to them and that they visit(ed) regularly. Questions about these were also raised during the interview. Thirdly, the interviews were conducted. The interview questions (see a sample in Table 1) are based on the conceptual model. Some are loosely based on Manzo's (2005) interview questions about emotional relationships to places and the meanings that these places have for people. By asking all participants two equal questions about the mental maps and photographs (Questions 1 and 13), the visual data was collected systematically. Further probing during the interviews explored the relationship between place attachment and activity spaces. Therefore, a semi-structured interview was effective as there is a possibility to dive into specific responses and topics further whilst having an overarching framework. By triangulating different modes of data collection and conducting thematic and content analysis, the credibility of the research design is assured (Nowell et al., 2017).

Table 1. Sample questions from the semi-structured interviews

1	Could you introduce yourself shortly? With your age, sex and nationality?
2	Could you give an overview of the map you created?
3	Which place do you feel strongest about? Why?
4	How has your relationship to the places changed since COVID-19? How does this make you feel?
5	Do you feel more or less mobile since COVID-19 or has that not changed?
6	Do you visit places more or less frequently since COVID-19 or has that not changed?
7	Do you visit places for a different duration at a time than before COVID-19; shorter or longer?
8	Has the number of places you visit during a day changed since COVID-19?
9	Do you think about the places mentioned/that you cannot go to a lot?
10	Which place(s) do you look forward to going to when they become available to you again?

11	Has the value of certain places changed for you since COVID-19?
12	Are there places you visit now that you did not visit before the pandemic?
13	What have you taken the picture(s) of? Why did you choose this specifically?
14	Would you say that you as a student are more affected by restrictions that COVID-19 has brought with it?

Walking interviews through the daily activity spaces of students would have been a preferred research method. Nevertheless, due to the lockdown restrictions at the time of the research and for the safety of participants who live up to 900km away from the researcher, this was eliminated. In retrospect, I could have sought for participants in my proximity when recruiting. But in this case too, lockdown restrictions were in place during the research process.

INCLUSION CRITERIA

Participant criteria included being an undergraduate student in their early 20s who does not have a job that consumes more time than the study and who studies in the European Union (and the United Kingdom). The former is due to the difference between trends in undergraduate and graduate studies mentioned earlier. Studying should, nonetheless, be the focal point of the participant's life, rather than a job. The latter criterion allows for comparison due to similar COVID-19 related restrictions put in place by governments of the named countries. Participants needed to have been in at least their second year of university to ensure that they had a university experience prior to COVID-19 to compare with the pandemic situation. Comprehension of the English language was a given for all participants.

RECRUITMENT OF PARTICIPANTS

Participants were recruited through social media. A standardised message, including the information letter (see appendix iv), was sent out via the messenger app WhatsApp. Participants contacted the researcher if they wanted to participate.

When participants agreed to take part in the investigation, a time that was suitable for them was agreed upon. Data were collected online due to restrictions as a result of COVID-19. In agreement with the participant, pictures taken, and a photograph or scan of the sketched mental map were forwarded to the researcher via email before the interview, so that specific questions for the interview could be generated in advance. The interviews took place on a convenient video calling platform chosen by the participant, such as FaceTime and Google Meets. All interviews were conducted in English. The recording of the interviews was auditory, not visual. In all cases the investigation began with a brief introduction to the topic by the researcher, followed by an expansion on the ethical considerations.

ETHICAL CONSIDERATIONS

It is paramount to anonymise the data, an ethical consideration which ensures the privacy of the participants. Participants were assigned a unique participant ID to which they are referred throughout, and which links their transcribed interview to their mental map and picture(s). Participants were asked not to give their names, nor any other information that will identify them. They gave their age (in years), their sex, nationality and current place of residence/living arrangement, as visualised in Table 2 of the results. The data was stored on the hard drive of the researcher's computer and was not forwarded nor copied for any purposes.

Participants had to provide informed consent (see appendix v for the consent form) and were made aware of the aims of the research. They were offered to ask any questions about the research or the

handling of their data at any point of the research process. Participants could withdraw their information at any point in time. Upon request, they will receive the final version of the paper.

Bearing in mind that participants might be uncomfortable or anxious relating to consequences of COVID-19 or for personal reasons, probing questions should be harmless and not evoke any trauma. It was important to practice the questions beforehand and be aware of when to ask them in what tone, and discuss with the participant in an appropriate professional way. Additionally, it was made clear that there is no authoritative or political aim to this study; participants should not feel that they are being spied on, regarding whether they adhered to national guidelines and legislations responding to the pandemic. Power relations should not play a large role in the research, as the researcher is a member of the studied community.

DATA ANALYSIS SCHEME

Verbatim transcription of the interviews was carried out. For the purpose of the presentation of this research, intelligent verbatim transcription was implemented with some quotes. Coding the data deductively in Atlas.ti involved a code tree based on the conceptual model (see Figure 1). This distinguishes between the three components of place attachment and is shown in appendix i. Then, based on the literature, these components were further divided, regarding specific reasons for the type of place attachment. Naturally, this code scheme was subject to change during the data analysis based on the information provided by participants. This led to a revised code tree which is presented in appendix iii. An inductive content analysis of the mental maps and photographs was conducted in relation to the interview data. Snippets and features of the images were coded; for example, stickmen in the mental map or people in the photograph inferred that social networks are important for the participant. The iterative process of inductive coding – compared to deductive coding based on literature – reduces researcher bias (Mayring, 2014). The inductive code book is presented in appendix ii. Nonetheless, it was useful to begin the data collection with a scheme so that questions were structured properly and led to answers to the research and secondary questions.

Results

Ten participants took part in this research. Of those, ten drew mental maps, nine took photographs and ten were interviewed; saturation was reached. The characteristics of participants are summarised in Table 2. The findings suggest that the COVID-19 pandemic has changed the attachment that students have to places in their activity spaces in numerous ways. Due to the linkage between the different forms of data (mental maps, photos and interview transcripts), they will be presented collectively. Firstly, typical locations in students' activity spaces are deciphered. This will be followed by places which students can and do go to during a lockdown, and finally how place attachment has transformed in students' lives.

Table 2. Characteristics of participants

P_ID	Age	Sex	Nationality	Current living situation
1	21	Female	German	Own flat in university city in Germany
2	21	Male	German	Parents' home in hometown in Germany
3	21	Male	German	Shared student flat in university city in the Netherlands
4	20	Female	English	Shared student flat in university city in England
5	20	Female	German	Shared student flat in university city in England
6	21	Male	German	Own flat in university city in Germany
7	22	Female	Dutch	Own flat in university city in the Netherlands
8	21	Female	English	Shared student flat in university city in England
9	21	Male	German	Own flat in university city in Germany
10	20	Female	German Moroccan	Shared student flat in university city in the Netherlands

DAILY ACTIVITY SPACES OF STUDENTS

SOCIALISING

Before the onset of COVID-19 and subsequent lockdowns and restrictions, all participants went out to socialise. In total, 93 codes were tagged in relation to social place attachment. Supporting Grigsby (2009), the findings demonstrate that the social aspect of places is the part that students are most attached to. The typical 'college life' stereotype is frequently acted out. As one participant puts it:

Especially as a university student, going out is a big part of my life – going out to bars, going out to clubs... People going about their daily life, going to restaurants, going to shops, and not really often at home (P4).

Socialising and visiting numerous places other than home during the day is a norm for undergraduate students. Activities, including part-time jobs, extracurricular activities and sports, in different locations expand the daily activity space. Due to the number of different activities, a network of places is constructed. Compared to other populations, such as full-time working adults, undergraduate students have more free time to spend on hobbies and passions, such as sport.

However, it appears that lockdowns have made students realise that places themselves are not necessarily significant. Rather than the places they visit, it is often who they go with that is important to them. P6 thinks 'it's more the people that I went with that I would have an attachment to, rather than the actual location'. This accentuates Reese, Oettler & Katz' (2019) claim that inaccessibility of a place can lead to decreased attachment.

VIRTUAL SPACES

Considering the claim that the people who one is with are more important than the place where one is, virtual spaces should be an assistance to meeting friends when it is impossible to meet face-to-face. Virtual spaces have offered students some interaction with others. Nevertheless, these spaces act as an expedient opportunity that works given the circumstances rather than a suitable alternative to meeting face-to-face. Speaking about virtual spaces, one participant claims:

Even though I have a lot of personal interactions with people via FaceTime and via Teams, via Zoom, much more than I had before the pandemic, I don't think it's an exact replacement for meeting them in person (P9).

This resonates with evolutionary and psychological research that humans need physical interaction and proximity (DeLamater, Myers & Collett, 2018). One participant mentions the lack of contact with acquaintances who typically gather in a group setting as something she misses.

You have those people you know and you don't talk to every week but when you go to like a social drink or something you see them and you can catch up about what happened in your lives. And now you don't see them at all because those are not the kinda friends you usually hang out with. But you do like them. And it's nice to also have those kind of contacts because my best friends I still see, obviously, but those kind of people you don't see very much these days (P7).

While she still meets up with her best friends, she has not met up with acquaintances since the pandemic. These social contacts (met in social places) are, however, a large part of students' activity spaces. The magnitude of meeting places may not have been apparent before COVID-19 but it has been highlighted through the impossibility of visiting them.

LONGING FOR ACTIVITIES

The value of numerous previously frequented (social) places has been given up by many students. Five of the nine participants who shared photographs chose to take pictures of locations, which they cannot access during lockdown, where they experience belonging in a group setting and social interaction. The usually active student community lost the majority of their activities due to lockdown. With the spare time students have and the premise that this time does not need to and will not be spent studying (Arum et al., 2018), they lack 'incentive' (P2) and have 'no excuse' (P8) to leave the house. Personal place attachment has decreased for many participants. They miss places where they made memories and feel like they belong. P4 shared two photographs of the high street in the centre of the university town where she lives (Figure 2a and 2b). Considering it her favourite place before the pandemic, she is upset by the 'suffering' (P4) of the high street during COVID, which is depicted by the emptiness in Figure 2b.



Figure 2a. High street pre-COVID Figure (left)



Figure 2b. High street during COVID (right)

As noticed by many people globally since the pandemic, lockdown resembles imprisonment (Dhimi, Weiss-Cohen & Ayton, 2020). Staying at home can lead to strains on mental health. One participant (P4) uses the phrase 'being locked up inside', suggesting that this is harmful to mental health. Contrary to adults who follow the typical life course trajectory, students commonly live in a smaller home where one room has to support numerous functions. This is visualised by P10 in Figure 3, who created a plan of her 20m² room in a student house which acts as the focal point of her mental map. Almost all parts of her room have multiple purposes, such as the study space which is also her gym for the time being. Constantly being in the same space renders it evident that students become more desperate for a change in scenery.

FINDING ALTERNATE ACTIVITIES

SUPERMARKETS

In response to the unavailability of valuable places during COVID-19 lockdowns, students have discovered alternative places. Before lockdown attachment to a supermarket would generally not be considered strong. Nevertheless, as other places became unavailable, the supermarket remained as one of the only places that students could and needed to visit. Six participants incorporated the supermarket

in their mental map, and for all but one participant the supermarket had become more important since lockdowns were imposed.

I go to the supermarket as if I'm going to the mall or I'm going for a trip. I will get dressed to the nines to go to the supermarket and it is honestly the highlight of my day most days... It's so much more exciting because that's when you actually see people. And it just becomes a day trip at some point (P10).

Valued for the activity that it offers as well as the social interaction for students, the supermarket has become a place where people feel attached for material, personal and social reasons. The activity can be seen as a trip or a routine (as mentioned by P10 above) for which people value the place, yet it also forms a part of the personal component of place attachment. Going to the supermarket is something where students show their identity and find joy for themselves. Additionally, simply seeing others in real life is rewarding for participants. P5 got to know the people who work at the local supermarket during lockdown and knows 'who's going to be there on certain days', adding to her place attachment.



Figure 3. Cut-out of mental map (P10), showing the participant's home and its functions during lockdown

BEING OUTDOORS

Almost all participants value outdoor spaces more since COVID. 46 codes relating to being outdoors were detected. Besides one participant for whom outdoor spaces have always been important, being outdoors has become a coping mechanism for students since the pandemic began. Having spent the entire day in one place, in front of a screen, students feel stifled and need a change of scenery. Getting fresh air on walks and being able to feel safe outside helps them. The benefits of nature on physical and mental health are reproduced regularly (Bratman et al., 2015).

Speaking about the local park, P3 claims 'it's one of the few places that are still open and that you can still use to the full potential'. This highlights the attachment to the material. The photograph of the park taken by P8 (Figure 4) showcases her idea of 'relaxing' during lockdown and having a 'walk around'. Nature and being outside – both part of the material component of place attachment – have become more valuable to students since the pandemic. Physical place attachment is also accompanied by the personal component of place attachment, with participants feeling comfortable in the park and using walks as coping mechanisms.



Figure 4. Photograph of the local park (P8)

Alternatively, it is not a particular place that is essential but any alternative to the home. Before COVID P10 would 'go to specific places much more often' whereas during COVID he was 'mostly just going on random walks which [he] didn't really plan ahead'. Any activity is necessary for students; to fill their daily activity spaces somehow.

NEW PRIORITIES FOR PLACE ATTACHMENT

As a result of restrictions in mobility, students have had to adapt their movements to confined areas. Going on walks has allowed students to travel through their town or neighbourhood of residence. P4 has 'explored parts which [she has] never seen in [her] life'. Speaking about possible locations that she can visit, P5 says she 'appreciate[s] every single place because it's just become a much larger part of [her] life' (P5). Appreciation of local places that can be visited has increased, suggesting that in the future students may become more focused on the local in a globalised world. Travelling is also seen as less of an ideal.

Nevertheless, students want to catch up on the supposed best years of their lives which they missed out on because of COVID-19. This evolutionary part of humans deserves recognition. Students have given up a lot of their activity spaces and yet have not been compensated by the government. Participants feel like their demographic has been neglected by politicians.

It feels more like I'm just trying to get the years down instead of enjoying the moment and enjoying all the experiences that come with university. So, I've definitely missed out on those... and I do think we are somehow the most neglected in terms of regulations and whatever goes on, like press conferences (P10).

It is paramount that university students, who are among the leaders of the future, are able to enjoy places where they feel that they belong. The mental health consequences of COVID-19 lockdowns have become as much of a pandemic for young people as the coronavirus has.

Conclusions

Undergraduate students' daily activity spaces have shrunk since the onset of the COVID-19 pandemic. Places of belonging that were frequently visited and valuable to students for the social

experience and their personal identity became inaccessible. As a result, students suffered from the restrictions that left them without activities and with time that they could not fill with people. As expected, attachment to specific places of belonging, such as university and local bars, has been forced to be released, at least for the time being, and replaced with others. Many students became attached to a supermarket, trying to find the joy in one of the few places they could still visit and where they could interact with people. Nature or even the act of going outdoors became essential for students, who often live in small spaces and spend the majority of the day in front of their computer since universities moved education online, as this is a change of scenery from the own home. Unlike the expectation, physical places have not become less valuable since the opportunity of virtual places became available. Instead, students seem to appreciate physical places in their vicinity more, foreshadowing a return to a local lifestyle. As daily activity spaces of undergraduate students have changed, components of place attachment have inevitably changed as well.

Returning to the conceptual model, it requires some adjustment (see Figure 5). While social places are those that students were most attached to and still enjoy, their inaccessibility leads to disattachment. Furthermore, it has been made apparent that places are not as important for the social aspect as the people are. Material places, on the other hand, have gained value for students, particularly supermarkets and outdoor spaces. Outdoor spaces can also be considered to provide personal attachment as students feel comfortable and that they belong there. Supermarkets and parks are appreciated on a material, personal and social note. Place attachment which incorporates all three components is the strongest.

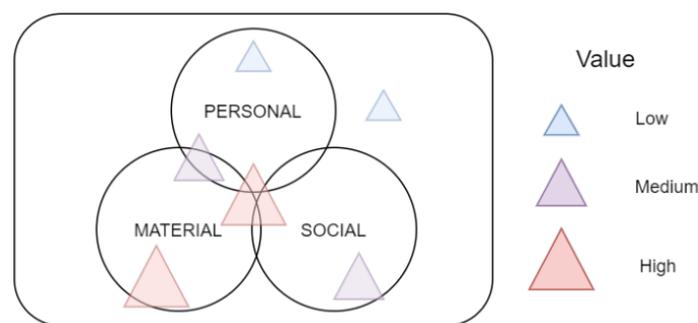


Figure 5. Adjusted conceptual model based on findings

The lack of affinity that students have towards virtual spaces suggests that they merely facilitate some social needs. Although they are a part of the students' daily activity spaces now, they are not a place that students are attached to. Despite the current coping mechanisms through modified place attachment, this situation is unsustainable for students. Their evolutionary needs for social interaction should be respected.

RECOMMENDATIONS

With the focus turned to the local area and outdoors, posters could be put up in accessible public places, such as local boards, street lamps or trees. Here, stories from a student association or a big event could be shared which outline memories and emotions experienced in favourite places. Holding on to the positive memories can ensure that place attachment to previously regularly visited and highly valued places is not forgotten, as suggested by Reese, Oettler & Katz (2019), but preserved in a positive way. This also allows for social interaction. People could comment on such posters, as one does in an internet forum, yet knowing that the other people take routes through the same area: they have a shared activity space. Such tasks require little effort apart from some care or empathy but may have a large impact on feelings of belonging and connections, which people naturally require. These ideas should be suggested and supported by the government. This would also remind students that they are not neglected and that their mental health is important. Additionally, the topic of isolation and other stressors related to

COVID-19 that students experience should be addressed more through therapy opportunities or focus groups. Students should be treated fairly by institutions, and politicians should adapt lockdown restrictions to the basic needs of the future generation.

STRENGTHS, LIMITATIONS AND FURTHER RESEARCH

This paper tried to shed a light on the complex relationship between place attachment and daily activity spaces of students. By remaining (self-)critical and reflexive throughout the cyclical research process, trustworthiness is built. Although this research focuses on changing patterns in the light of the COVID-19 pandemic, the interviews with participants made it apparent that it is not the only explanation for certain outcomes in students' lives since March 2020. As students' lives have progressed since the beginning of the pandemic until the time of research, they have entered new stages of university education, they have relocated, and they have built new relationships. It should be anticipated that these changes also have an effect on their view of places, rather than (only) COVID. This reduces the credibility of the research. It would be beneficial to re-evaluate place attachment of participants in a post-COVID setting in the future. Additionally, participants could be asked to keep diaries of their movements and the places they visit during and after lockdown. This would result in persistent observation and increase the credibility of the research.

Further research could compare place attachment of students in different cities or towns. It would be fruitful to investigate how the place where one was born and/or raised impacts place attachment. Students who study in a different place to their hometown are likely to have unique experiences in both places. Changing activity spaces and consequential place attachment over the entire lifecourse could yield important distinctions for policies.

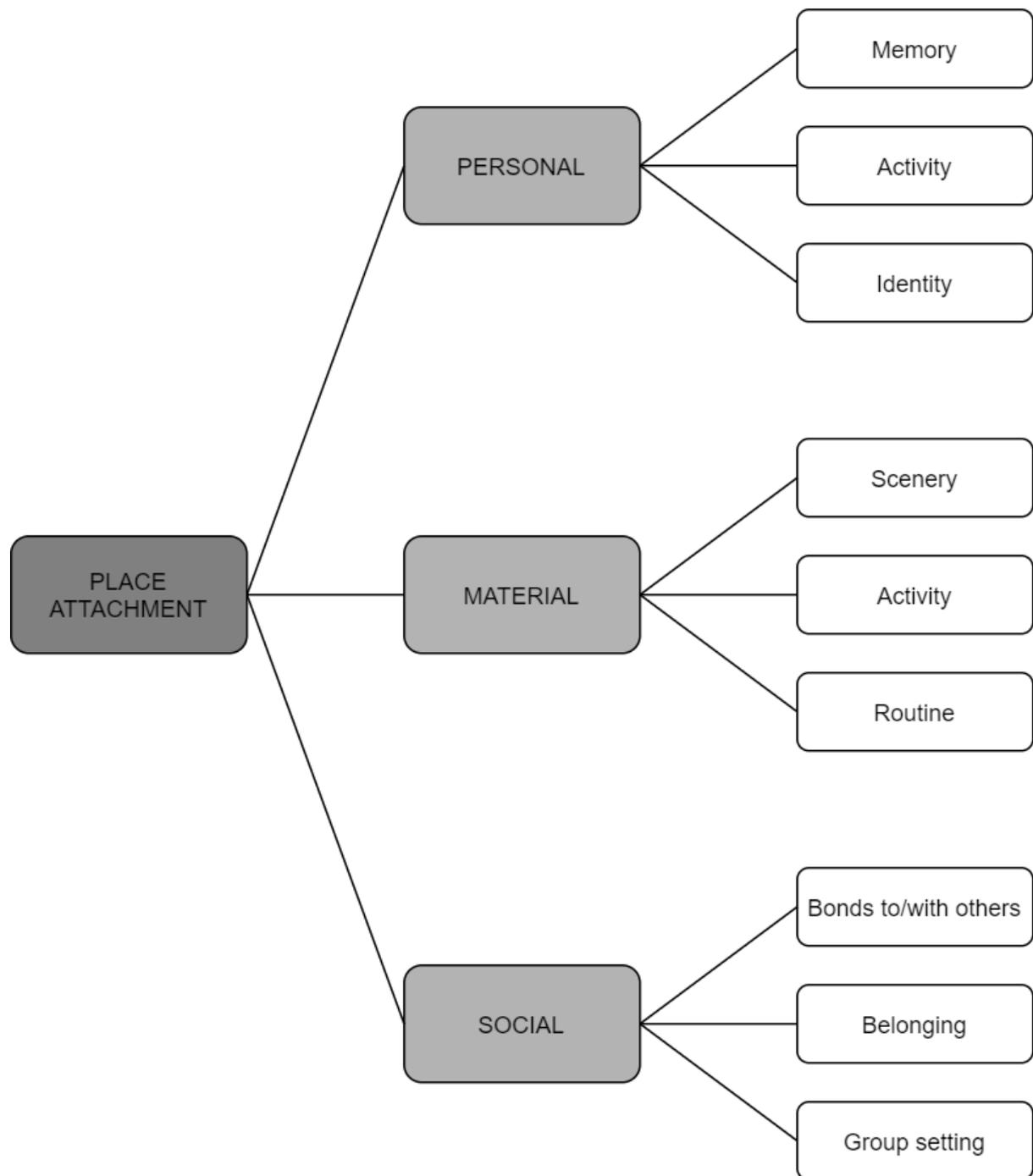
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Appendix

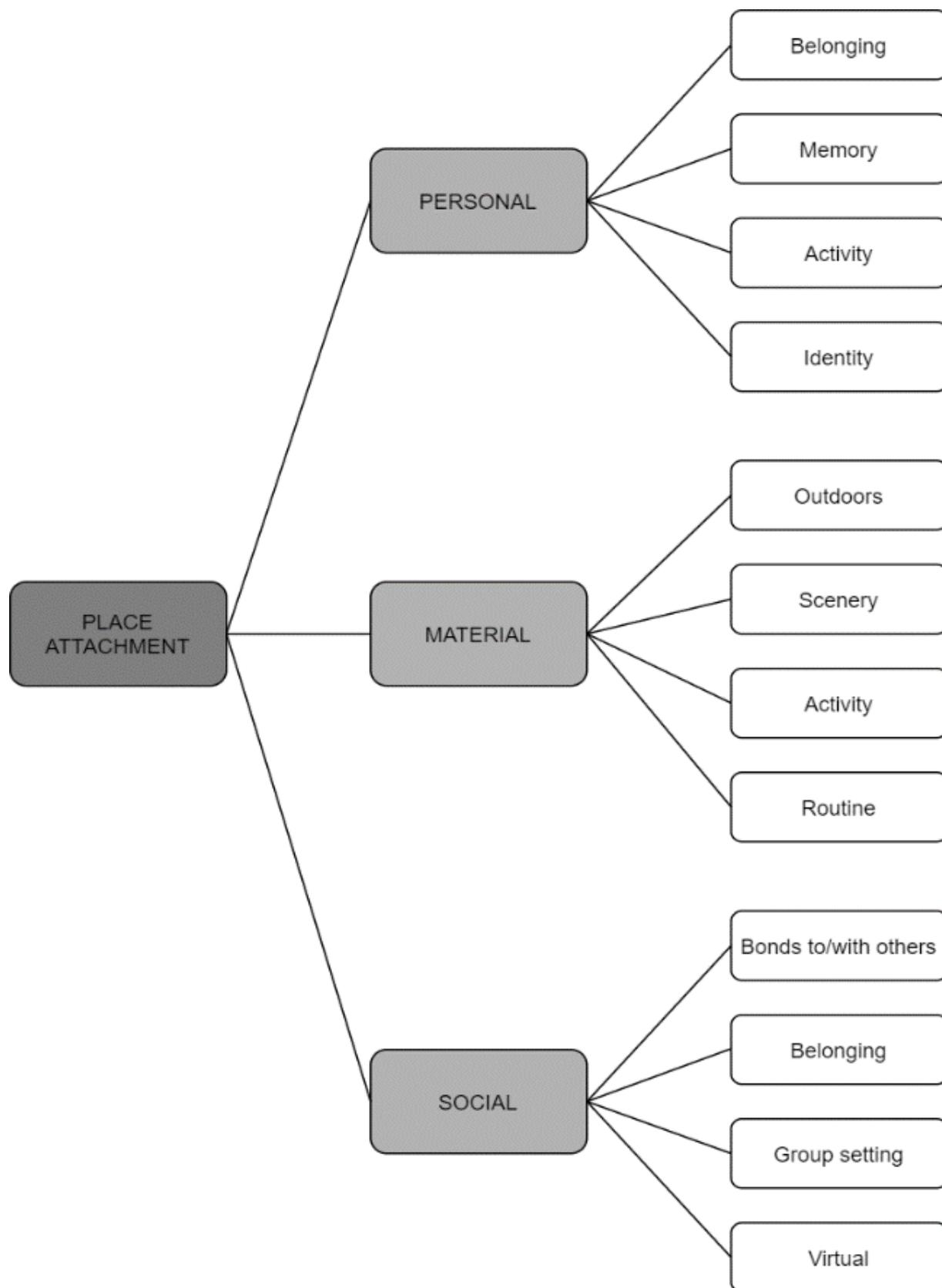
APPENDIX I: DEDUCTIVE CODE TREE



APPENDIX II: INDUCTIVE CODE BOOK

Quote	Sub-code	Code	Theme
Especially as a university student, going out is a big part of my life – going out to bars, going out to clubs... People going about their daily life, going to restaurants, going to shops, and not really often at home (P4).	Identity, activity, group setting	Personal, material, social	Daily activity spaces of students
Even though I have a lot of personal interactions with people via FaceTime and via Teams, via Zoom, much more than I had before the pandemic, I don't think it's an exact replacement for meeting them in person (P9).	Virtual, bonds to others	Social	Daily activity spaces of students
You have those people you know and you don't talk to every week but when you go to like a social drink or something you see them and you can catch up about what happened in your lives. And now you don't see them at all because those are not the kinda friends you usually hang out with. But you do like them. And its nice to also have those kind of contacts because my best friends I still see, obviously, but those kind of people you don't see very much these days (P7).	Bonds to others, group setting	Social	Daily activity spaces of students
Figure 2a (P4).	Activity, routine, group setting	Material, social	Longing for activities
Figure 2b (P4).	Activity, memory	Material, personal	Longing for activities
I go to the supermarket as if I'm going to the mall or I'm going for a trip. I will get dressed to the nines to go to the supermarket and it is honestly the highlight of my day most days... It's so much more exciting because that's when you actually see people. And it just becomes a day trip at some point (P10).	Activity	Material, personal	Finding alternate activities
Figure 3 (P10).	Belonging, identity	Personal	Finding alternate activities
Figure 4 (P8).	Activity, scenery, outdoors	Material, personal	Finding alternate activities
It feels more like I'm just trying to get the years down instead of enjoying the moment and enjoying all the experiences that come with university. So, I've definitely missed out on those... and I do think we are somehow the most neglected in terms of regulations and whatever goes on, like press conferences (P10).	Activity	Material, personal	New priorities for place attachment

APPENDIX III: REVISED CODE TREE AFTER DATA COLLECTION



APPENDIX IV: INFORMATION LETTER



Spring 2021

*Course: Bachelor's Project***Information letter for the Bachelor's thesis 'Lockdown, locked up: How have lockdowns changed place attachment of (daily) activity spaces for students since the outbreak of COVID-19?' by Elisabeth Teichert - s3719774.**

Dear participants,

For my thesis I am investigating the effect of loss of places within (daily) activity spaces on students during lockdowns in response to the COVID-19 pandemic. You will be helping me by participating in three parts; firstly, sketching a mental map; secondly, taking at least one photograph of a place that you regularly go to or used to regularly go to before lockdown; and thirdly, being interviewed.

Instructions

1. Sketch a mental map of your (daily) activity space, including **changes as a result of COVID-19**. A mental map is a rough geographical visualisation that you automatically create in your mind to make sense of the world around you. It can look like a mind map or be a simplified version of road map. It does not need to take long, nor be a piece of art; the emphasis here is on **sketch**. Focus on **places you are attached to** and mention whether COVID-19 has increased or decreased your place attachment. Place attachment is the relationship that someone has to a place and in which the place holds meaning for a person, be it emotional, cognitive or behavioural. We will discuss the results in the interview.
2. You will also be asked to take at least one photograph of a place that you **regularly go to or used to regularly go to before lockdown**, which you feel attached to. This will also be referred to during the interview.
3. During the interview I will ask a few questions about the relationship you have to places and whether COVID-19 has changed this. You can bring up anything you feel is important.

If you have any questions or concerns, feel free to drop a message: +491726423536 or send me an email: e.teichert.1@student.rug.nl.

Thanks in advance!

Best wishes,

Elisabeth Teichert

APPENDIX V: CONSENT FORM



university of
 groningen

Spring 2021

Informed consent

Human Geography & Urban and Regional Planning

Course: Bachelor's Project

Consent form for the Bachelor's thesis 'Lockdown, locked up: How have lockdowns changed place attachment of (daily) activity spaces for students since the outbreak of COVID-19?' by Elisabeth Teichert – s3719774.

I have read the information letter about the Bachelor's thesis. I was able to ask questions and my questions were answered to my satisfaction. I had enough time to decide to participate in the research.

My participation is **completely voluntary**. I can withdraw from the research at any time, without having to give a reason.

I give my permission for using the sketch, photograph and interview data for the following purposes: the Bachelor's thesis and a presentation of that.

I agree to participate in this interview.

Date. Name and signature of **research participant**.

I declare that I have informed the research participant about the research. I will notify the participant about matters that could influence their participation in the research.

Date. Name and signature of **researcher**.
