Citizens’ positive safety perceptions in public spaces
SUOJANEN, Ilona, BAYERL, Petra and JACOBS, Gabriele
Available from Sheffield Hallam University Research Archive (SHURA) at:
http://shura.shu.ac.uk/25198/

This document is the author deposited version. You are advised to consult the publisher's version if you wish to cite from it.

Published version

Copyright and re-use policy
See http://shura.shu.ac.uk/information.html
Urban environments can be stressful places and as a majority of people now tend to live in cities, innovative ways to tackle citizens’ insecurities and fears are needed. Smart decisions in planning safe urban places should be guided by the question of how citizens’ perceived safety in cities can be improved. In this paper, using an exploratory approach of visual and narrative methods, we develop a framework that captures aspects which lead to safety perceptions as positive experience. It contains three main themes that support safety perceptions in public spaces: place, perceived social presence and perceived information. We argue that safety perceptions are always a combination of multiple dimensions and aspects, and although safety is often divided into physical and mental safety, participants do refer to both of these interchangeably. Overall, our study contributes to the recent discussions about alternative approaches to safety, offers conceptual insights into the nature of safety as a positive experience and uncovers the broad spectrum of safety understandings as defined by citizens.

Keywords: Safety perceptions, positive safety, public safety, narrative and visual research, multidisciplinary research, placemaking.

1. Introduction

More than half of the world’s population lives now in cities (World Economic Forum Report, 2018), which should make the creation of healthy urban environments a top priority for policy makers and communities. Yet, studies have shown that, although living in cities has plenty of positive effects (e.g. on sanitation, nutrition and health care; Dye, 2008), people living in cities are more likely to suffer from mood and anxiety disorders and stress (Peen et al. 2010) than those living in the countryside. The effect of city living can be found even on a neurological level: Neuroscientist have shown that city living leads to an increased amyglada activity in the brain, which has a clear correlation to heightened stress levels (Lederbogen et al. 2011). Urban environments are thus often stressful places. Given the fact that a majority of people now tend to live in urban environments, we argue that innovative ways to tackle citizens’ insecurities and fears are needed; guided by the question of how citizens’ felt safety in cities can be improved.

Current research on safety is largely characterized by a negative view, namely the absence of safety and a nearly exclusive focus on threats and risks (Hollnagel, 2014). Conversely, it largely neglects the positive sensations of safety itself (Brands & Schwanen, 2014). Our study suggest a different approach, looking at safety as a positive experience (and excluding risks and threats), aiming to create novel insights into citizens’ safety perceptions in public spaces with direct relevance for city planning and city making. In this article we thus focus on perceived safety, i.e., the feeling (or perception) of a safe situation or experience in public spaces. The relevance for safety perceptions is widely acknowledged; for instance, when Alkhadim, Gidado and Painting (2018, 37) confirm that a “venue cannot be considered fully safe when the subjective safety is overlooked.” Hence, when building safety management systems, a focus on objective safety is not sufficient. Instead subjective safety needs to be taken into consideration (Alkhadim et al. 2018), as it allows understanding people’s behavior and hence improves urban safety (Zhuang & Wu, 2012).

Using an exploratory approach of visual and narrative methods, we develop a framework that captures aspects which lead to safety perceptions as positive experience. It contains three main themes that support safety perceptions in public spaces: place, perceived social presence and perceived information. These three themes are broadly defined and include rich sources of information on how, when and why safety is perceived in public spaces.

Our results demonstrate that it is possible to detect, capture and explain when safety is present, not only when it is absent, and to identify in which
situations people feel safe in a public space as well as which aspects influence their feelings of safety. Although safety is frequently divided into physical and psychological safety, we further show that participants tended to refer to both aspects inter-changeably; hence, that physical and psychological safety are interlinked and often inseparable in the experiences of people. In practical terms, our study provides ideas for smart decisions in planning safe urban places.

2. Positive safety

Safety is often listed as a key element of sustainable communities and an important contributor to people’s wellbeing, as lacking safety perceptions can have detrimental effects on individuals’ wellbeing (Allik & Kearns, 2017). The safety of citizens is thus a “legitimate goal for public policy” (Ben-Arieh, & Shimon, 2014). Yet, safety concerns rank top on citizens’ minds in all European countries, and levels of stress and worry have reached a new high in recent years (Gallup, 2017). Hence, a better understanding on what makes people feel safe and how to increase safety perceptions is needed.

The focus on the ‘lack of safety’ might lead to the development of ‘objective’ solutions insufficiently incorporating the subjective experiences. This perspective risks a biased analysis of the important concept of safety by limiting the scope of approaches to safety. A focus on threats and risks further reduces the portfolio of potential safety providers to those who are experts in threat mitigation and might underestimate the relevance of contextual and social influence factors on safety perceptions. For example, a study by Alkhadim et al. (2018) listed four variables influencing perceived safety in large space buildings. Since they looked at safety from a risk management perspective, and as they followed the traditional definition of safety as a lack of risks, their variables, called perceived force, poor information, insufficient space and poor real time management (based on the FIST model created for risk management by Fruin, 1993), actually measured perceived unsafety.

We argue that for a full understanding of safety, it should not be limited to the “negative dimension of the absence of violent conflict in social organizations” (Webb & Wills-Herrera, 2012, 4). Further research is required to fully understand the multifaceted phenomenon of feeling safe. This calls for a positive turn (Schuilenburg et al., 2014) for safety studies.

A positive approach encourages looking into what is possible instead of considering mainly barriers and challenges. It aims to provide alternatives to more traditional approaches, which have mostly neglected the positive sides of experiences – including safety; calling for more focus on interventions prolonging and nurturing personal safety (Brands & Schwanen, 2014). That is, instead of threats to safety, positive safety scholars should look for opportunities to foster safety and aim to understand what are safety signals for people. In this way promoters, boosters, advocates, proponents and exponents, which increase citizens’ feelings of safety, can be acknowledged and used.

This positive approach to safety ties into recent studies which have argued that, unlike the common thinking of stressors creating unsafety, fear is not necessary due to the presence of a threat, but to the lack of safety signals (Brosschot et al., 2017), indicating: “if there is a certain signal, then there is no danger” (De Jong & Vroling, 2013, 26). This would mean that the threat response is only turned off when signs of safety are recognized, since: “for living organisms the absence of threat does not equal the presence of safety” (Brosschot et al., 2017). Removing threats does not automatically lead to safety, and hence better understanding on aspects that can enhance safety, not just removed unsafety, are needed. Following this approach, we argue that, in addition to focusing on stressors causing unsafety, focusing on signs, aspects and perception of safety is crucial. In comparison to the referred study by Alkhadim et al. (2018) this study actually provides a conceptual framework for perceived safety, i.e. what aspects make people feel safe in public spaces, not what makes them unsafe.

3. Safety perceptions in public urban spaces

There are several studies on safety in urban places. What is known based on these studies, is for instance that routines increase the feeling of safety and wellbeing in big cities (Avni-Babad, 2011), as well as that street lighting increases actual and perceived social safety (Boomsma & Steg, 2014). Presence of uniformed people (e.g. police officers) does not increase feelings of safety in a safe situation, but when the situation is
considered unsafe, the feeling of safety increases with patrolling police, with foot patrols having a stronger influence on safety than a vehicle patrol (Doyle et al. 2015). Those with low education, poor health and migrant status are found to feel less safe than other residents (Allik & Kearns, 2017). Other studies have shown that areas consisting of a highly inter-connected street net with plenty of shops and windows on the ground-floor level are experienced as the safest place to stay and to move through (de Rooij & van Nes, 2015). In residential areas knowledge about neighbors was also found to increase safety (Lindgren & Nilsen, 2011).

According to Mehta (2013) perceived safety in urban space is influenced by the environment, physical condition and “configuration of spaces” and is closely tied to perceived crowding (Tseng et al., 2009). Familiarity with the place, age and gender might influence safety perceptions (Mehta, 2013). Social presence, i.e. “the sense of being together with another” (Biocca et al., 2003), has positive effects on perceived safety (Warr, 1990). This is especially the case when the presence of others is not frightening and others don’t seem to have criminal intentions (Warr, 1990). The presence of others can be soothing in fact, as individuals feel less like a target, are more likely to receive help and provide a sense of security (Warr, 1990). Even ambient sounds can influence perceived social presence in public space positively (Sayin et al., 2015).

It has been criticized that the focus in public spaces is normally on hardware (infrastructure and buildings) and less so on the software, such as culture and space, and hence a new approach called “placemaking” is taking place in the creation of public spaces (Haas & Mehaffy, 2018). Placemaking is explained as an effort to “collectively reimagine and reinvent public spaces as the heart of every community” and pays attention to the “physical, cultural and social identities that define the place and support the ongoing evolution” (Project for Public spaces, 2014), with a strong focus on observing, listening to and asking questions in a particular space to fully understand the needs and wishes (Project for Public Spaces, 2014). Safety is listed as one aspect of placemaking.

4. Methods

4.1 Context of the study

The study was conducted in the in one urban area in the Netherlands (Rotterdam). The Netherlands is 7th on the list of countries on the Positive Peace Report (2017). According to How’s life report by the OECD (2017) Dutch people feel very safe: 81% report feeling safe when walking alone at night. The rate of deaths due to assaults has fallen from 1.1 to 0.6 per 100,000 inhabitants. The statistical atlas De bosatlas van de veiligheid (2018) shows how the country has become a safer place in recent decades. Dutch people also have a high trust into their national government. (How’s life report, 2017). The Netherlands is thus a good example to study safety that is and exists, and can be present in citizens’ everyday lives. But it also allows to question when, how and if subjective safety is experienced when objective safety is present.

4.2 Data collection and analysis

Data consisted of 32 citizens who were asked to take pictures when experiencing safety in public spaces during one and two week periods. Participants were found through snowballing and social media. They were selected to present different genders, age groups and neighborhoods.

The choice for a visual method was taken as emotions and feelings can be challenging topics to discuss. There are the linguistic challenges associated with capturing very subjective experiences by words or verbalizing physical sensations or automatic responses. In order to allow participants to create knowledge and to see the world through their eyes, we thus asked them to take pictures during moments they felt safe. This approach supports participants to generate their own work, promoting a sense of ownership as it gives them the ability to choose what they want to include in the information they provide in sharing their lived experiences. In this way the research is conducted with participants, not about or of participants. Also, taking photos and sharing them with friends and strangers is becoming one of the most frequent and efficient ways to share experiences. This means that photography is a familiar medium that does not require training or special (language) skills, reducing barriers to participation.

However, photographs can only provide a fragmented and partial reality, and anyone outside the research interaction can also guess what the image intends to communicate, but cannot fully

---

a Although accurate numbers are hard to give, there are estimates that in the year 2017 people took 1.2 trillion photos (Business Insider, 2017).
see the meaning of it (Shortt & Warren, 2017). In consequence, in addition to the photos, participants were asked to provide narrative information about each picture in face-to-face interview sessions. Together words and images can “create a synergy” (Warren, 2002), i.e., extending further than images simply being prompts to elicit comments from participants. Part of the face-to-face session was further a semi-structured interview to clarify the situation and to gain more information of the experience.

The number of images taken in total was 253. 24 was recorded as the highest number of photos per participant and 1 the lowest. The analysis in this paper is based on both the images and their captions, and the narratives and interview discussions. The data was analyzed using thematic inductive coding. As the approach is abductive, the themes arose from the data and were constructed with suitable existing theories.

5. Findings: A framework for perceived safety in public urban spaces

Three themes emerged prominently from the combined analysis of photos and words: perceived space, perceived social presence and perceived information. The first two topics emerged most frequently, also in combination. For instance, sentences similar to “People and the way public space is built are the most important for my safety” (SS4) were encountered frequently during interviews. Analyzing detailed quotes within these two categories it became clear that – while overall themes appeared across all participants – the specific elements that created safety were largely person-specific, e.g., based on individuals’ personal experiences, knowledge, upbringings, attitudes or understanding of safety. Therefore in addition to space and social presence, we added a third theme called perceived information. This theme refers to the fact that each individual comes to the public space with pre-existing information and understandings of one’s safety, which influences how they perceive the space and presence of others. Together these three themes create a conceptual space to understand (positively defined) perceived safety in public spaces. In the following we outline the three themes in more detail.

5.1 Theme 1: Perceived space

Literature refers to perceived space often in the sense of built facilities such as buildings, roads, seating areas, corridors, stairs and escalators, facilities which are designed by architects and engineers (Alkhadim et. al. 2018). In our study, perception of safety in a public space referred to a much broader variety of aspects, such as nature and space as a social space; Hence, in our data the overall theme of perceived space fell into designed space, natural space and social space.

5.1.1 Designed space

Designed spaces were important to the safety of participants for the main reason that they used them in their everyday lives on their way to work or home, for hobbies or for meeting other people.

A very basic example of safely designed public space were crossings and road features: Zebra crossing makes it safer for pedestrian to cross; cycle lane makes it safer for bikers, and without the lights it makes it more difficult for the drivers to know when and where the bikers go. (SS5)

Safety was also perceived when the public space was designed in a way that allowed people to live in and be active at all times: It makes me feel safe to be in the city where people live, not business building blocks. If something happens there is no one there to help, especially at night. But if cafes and bars are open it is not a problem. (SS17)

Sometimes perceived safety came from separation. Physical separation refers to the separation from traffic or from risk factors: Bicycle lanes! Especially next to busy streets with cars, this has become quite important for me feeling safe in my day to day business. (SS26)

Whereas in other cases, not having a concrete separation was the safety factor, as it led to a feeling that people may trust others: Houses without the fence. It also shows that the general safety feeling the people living there have. Maybe you don't need to build the fence or a wall here. (SS22)

Design space often works best when aesthetics had been taken into consideration. That is when people experience the beauty of the place: Art makes me feel happy and safe in public space. There is also an ugly building there, so it doesn’t make you feel safe, but just adding color and funny things make you feel safe. (SS4)

The experience of beauty sometimes arose from the unexpected, creating an oasis of beauty or innocence:

b This refers to the participant. SS comes from the words ‘safety study’ and the number from the order of the participation. Hence the participants are referred as SS1-SS32.
It feels like a back alley. But this shop makes it feel safe. Nothing can go wrong here: look at all these toys and happy things inside! If this window had its light off we would go very fast through this street as it is not nice at all. (SS3)

In line with the broken window theory (Wilson and Kelling, 1982), designed spaces that were looked after were considered safe: When it is clean it feels like someone else is looking after it and it belongs to us. It is being taken care of. (SS3)

5.1.2 Natural space

I love (man made) nature spots in a city that never sleeps, is always under construction and has loads of traffic. I feel safe and peaceful in nature. (SS14)

As the above quote reveals, nature spots in a city are always man-made and in a way designed, but here the division has been made between built and natural elements of the city. Many participants shared photos of trees, plants and green spaces: People are relaxing in the green. If they feel safe enough to sit there then I can feel safe too. It is an invitation, to go and enjoy the city. If it wasn’t green, no one would sit. (SS17)

In many cases animals played an important role in safety perceptions in green spaces: Knowing there’s room for nature and people are kind enough to let them be, makes me feel safe and gives a smile on my face. (SS17)

5.1.3 Social space

In addition to designed and natural space, there was also a third type: social space. This referred to the possibility of having own separated space from others in the social sphere. Own space came from solitude from others with others:

I was able to close off and to focus on myself. I really like the feeling of my own ‘space’ in a public space. (SS1)

The need for own space was affected by the amount of people and the light: The size of the personal space changes. The less people, the more space you need. Your personal space is actually smaller because it is dark. (SS4)

But also the amount of control:
I always lock the car door and it gives me a sense of ‘no one can come in now’; it gives me a sense of my own place. (SS8)

This social space, i.e., space with or without others, is more directly addressed in the theme of social presence.

5.2 Theme 2: Perceived social presence

Most of these would involve people, in most of these situations I needed other people to help me to feel safe. (SS8)

Social presence, i.e. other people, was crucial to the safety perceptions of many participants in public spaces. In many cases other people, regardless of their familiarity, worked as a social safeguard for these people. Our data further shows that the perceived social presence does not always require the real presence of people (Sayin et al. 2015); safety through perceived social presence could also be acquired with a mobile phone and social apps. In consequence, perceived social presence could be divided into three sub-themes: familiar social presence, unfamiliar social presence, and presence of strangers.

5.2.1 Familiar social presence

This aspect refers to people participants knew well such as family members, friends and colleagues:
I usually feel safe when surrounded by my family. (SS19)

Social presence did not require the friends to be actually there, but simply to know that they existed and cared and can be reached for help:
You know things can go wrong and if you know it is in you power to reach out and call for help, to call 911, to call your girlfriend... That is 50% of the solution to that problem. You feel more safe. (SS21)

5.2.2 Unfamiliar social presence

This aspect refers to people we vaguely know and we can place in a context such as shop owners, neighbors, etc.:
I live in a neighborhood that is not very rich, lots of poverty and migrants. But I feel safe there because I say hi and I know lots of people. (SS17)
Just like the sense of presence of familiar people doesn’t require actual presence, unfamiliar social presence can be felt in social media: *Our neighbor app, when they post things that were lost in the street, ranging from earrings, over Children’s toys to car keys.* (SS27)

5.2.3 Presence of strangers

This aspect refers to people we do not know at all; e.g., passersby and other users of public spaces. The main principle of presence of strangers relates to safety mainly in the way that someone would be there in a case of a threat; but also from thinking that when there were others, one would not be the only target of threat.

The presence of children was often mentioned as increasing a feeling of safety, as well as the presence of people of different ages and the presence of women. Further, participants also focused on how people behaved: When they created a good atmosphere and were nice to each other, they increased safety: *People with very calm body language are nice to be around. They give you a sense of protection or they give positive vibe.* (SS8)

Also, when others were acting ‘normally’ and went on with their tasks, participants tended to feel safe: *When I can think of good reasons for them to be there then I like it. When I have a feeling of “what are you doing?” then I don’t like it.* (SS3)

Both the perception of space and perceived social presence were influenced by perceived information, combined with the perceptions of social climate and the personal state each individual brings to a situation.

5.3 Theme 3: Perceived information

Alkhadim et al. (2018) discuss a wide range of information individuals may consider before attending an event such as the nature and behavior of people involved, previous experiences with similar groups, familiarity with the space and the means of communication between those managing the groups. These aspects are also present in our interviews, although in addressing positive safety in public spaces our participants focused primarily on two aspects: social climate and personal state.

5.3.1 Perceived social climate

Social climate differs from social presence in that it refers to others in a broader, more abstract sense, including governments, organizations and other people in general. These are perceived either by their actions or spoken about in terms of participants’ trust in and understanding of the society and its pillars. Perceived social climate can thus be divided into two aspects: trust in government and organizations (including police) and perceived behavioral climate (of citizens as society). For instance: *The feeling of having an institution that cares for you and helps you. You feel like you’re a part of a community. It is fantastic. There is something beyond yourself. It’s just an immediate sense of safety.* (SS21)

*You see in other countries bridges collapsing and never here. I feel safe going everywhere in the country because I know government has enough regulations to make it safe.* (SS1)

Participants referred to social cues in their perceptions on behavioral climate: *The municipality and police, they are really active. If you call them they come really quickly. It is really comforting that if something happens, there’s always guarantee something will be solved very soon.* (SS17)

Conversely, there was a perception that general rules and standards are being followed:

*It gives me a good and safe feeling that I live in a country where being LGBTQ is accepted, at least more than in most countries.* (SS9)

5.3.2 Perceived personal state

Perceived personal state refers to the personal background of each person, in the information and experiences they carry that influence their perception of safety. Information and experiences are based on familiarity, knowledge (e.g. from education, news, statistics), gender, ethnicity, upbringing, attitudes and personal experiences. For instance:

*It is because I had an unproblematic youth, I was raised in a family with enough money and I could go to school, and I am a white male in the Netherlands. That privileged position is kind of a position of safety I guess.* (SS1)

*My friend’s dad is super protective. She is 30 but he still calls her every day. If she says ‘I am in Amsterdam’, the dad says ‘be careful, take a cab’, my dad would never say that. My friend feels way less safe than me.* (SS4)

*I never lock my bike. It makes me feel safe not to lock it. Because I choose to live in a safe world where people don’t steal.* (SS25)
I come from India so I am used to many people around, Rotterdam is not that crowded so I always feel safe in Rotterdam, it is all about perspective and what you are used to. (SS5)

Through their own individual safety lenses people form their safety perceptions and vice versa: others’ safety perceptions have influence on the own perceived personal state.

5.4 Interlinkages between themes
While we found three distinct themes across the various photos and narratives, participants’ descriptions also make clear that none of them operate in isolation. That is, there is not one single trigger of perceived safety alone; safety perceptions are always a combination of multiple dimensions and aspects.

A good example of this is SS11’s experience in a commercial center:

No matter how busy I am, my mind relaxes for a bit when seeing or hearing a piano in public space. This is connected to people and the fact that they surround you and they stop. It is not just busy people passing by and not looking at you.

In this narrative a piano playing in the public space is a combination of perceived space (the design of it, its esthetics and listening to beautiful music), perceived social presence (a stranger playing and other strangers stopping around to listen) and perceived information (perceived behavioral climate, people valuing music and taking time to stop and admire the moment). Safety experiences are thus triggered by several aspects that in combination create the positive perception of safety in a public space.

6. Discussion
Our study set out to understand how citizens perceive and define safety in the public urban spaces they inhabit. In contrast to traditional safety approaches, we framed safety perceptions as a positive concept focusing on ‘when people feel safe’, instead of ‘when do people not feel threatened’. Our findings offer three main contributions to further our understanding of citizens’ safety perceptions in public spaces:

1. Safety in a positive sense is constructed from three general, overarching themes: space, social presence and perceived information. These three dimensions together allow to describe situations in which participants felt safe offering a new conceptual framework to describe positive safety perceptions in public urban spaces.

2. Safety of citizens in public space is heavily influenced by an idea of somebody, “a good force”, taking care of the person as a citizen. In the narratives, this good force, is it e.g. municipality, city planners or the country, does its best to think smartly for not only the safety, but the enjoyment of citizens, acting for the better of people. The power of art and aesthetics also played a big role in concretizing this good force. Spending the energy in creating beautiful spaces in cities, where they were not necessarily needed for the functionality of the space was highly influential on people’s safety perceptions. “City makers want me to relax” was the hidden message of participants’ safety narratives.

3. Another indicating result is that although safety is often divided into physical and mental safety, participants do refer to both of these interchangeably. Public safety should not focus only on reducing crime, but also investing into increasing the perception of safety (Brenig & Proeger, 2016). So instead of looking only into crime rates and statistics (objective safety), there is a need to change the focus on a range of emotional and embodied sensations (Hubbard, 2005). Accordingly, a better understanding of the relation between these two, or a new conceptualization of safety, is needed.

Practical implications
The presence of ‘good force’ in some cases resulted in an anonymous tenderness towards the public, when forming admiration of smart solutions for the better of me and others who are in need of care and protection, but also for people to enjoy and share together. Green parks, squares, benches, playgrounds, art and events are all, when wisely planned, very much influencing the positive presence of other people, not matter how strange or unfamiliar they are to us. All these can also strengthen the positive perceived information on trust in the society, its actions and people, and start building new knowledge and positive past experiences, which in turn strengthen the overall safety perceptions positively.

7. Conclusions
Although actual safety is highly important, it is the perceived safety that impact peoples’ lives
(Van der Giessen et al. 2017) and that mostly influences their wellbeing. The attitude is often that environmental professionals need to know more about crime and people’s fears when they design public spaces and environments (Cozens, 2013). We would argue, that these same professionals need to know more about feelings of safety and what matters to people’s safety perceptions in public spaces to do their job well and when aiming for sustainable and pleasant environments. After all isn’t it in the core of public safety to make others feel safe, happy and relaxed, in opposite to individuals making their homes pretty and safe for themselves?

In opposition of paternalistically dictating requirements, orders and actions on citizens regarding safety, they need to be acknowledged as important knowledge-producers (Morrell, 2008). That would be public safety of, for and by people (Sen, 1999), as emphasized in this study.

In addition, there is a need to look into making public places in cities safer to people without restricting or destroying the liveliness and positive aspects of city living, such as diversity and freedom (Brands & Schwanen, 2014). As this study has shown, safety in public spaces is clearly linked to enjoyment.

Overall, our study contributes to the recent discussions about alternative approaches to safety and offers conceptual insights into the nature of safety as a positive experience. It is also in line with placemaking objectives: to spark public discourse, create beauty, engender civic pride, support health and safety, grow social justice and nurture authentic sense of place (Silberberg et al. 2013).

References
de Rooij, L. and van Nes, A., 2015. The perceived safety and spatial behaviour in three different neighbourhoods in Rotterdam. Akkelies van Nes: University College Bergen & Department of Urbanism, Faculty of Architecture, Delft University of Technology.