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Safety, surveillance and policing in the night-time economy: (Re)turning to numbers

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ABSTRACT

Against a background of discourses that link economic vitality of city-centres, consumption and safety to greater need for surveillance and policing, the current study takes particular interest in the city-centre night-time economy (NTE). This is a distinctive space–time where significant increases in surveillance and policing can be witnessed across cities in Europe and beyond. It is not evident, however, if and to what extent such interventions increase subjectively experienced safety and reduce fear of crime among people visiting city-centre bars and clubs on their nights out. Drawing on existing literatures on the NTE in cities, emotional geography, studies of surveillance and policing and the authors' previous research, this study develops a 'thicker' and situational quantitative approach to examining the effects on subjectively experienced safety of different manifestations of surveillance and policing in the NTE context. The visible proximity of police officers and door staff of bars and clubs are shown to have stronger effects on experienced safety than the positioning of CCTV and whether their footage is watched live or not. Nonetheless, the effects of surveillance and policing on experienced safety are rather complex insofar that they are to a considerable extent relational in nature and also ambiguous. For instance, a key difference between police and door staff is that police officers are more often seen as a friend of everybody and their presence as enhancing experienced safety; responses to door staff are more ambiguous and differentiated along lines of ethnicity. It is also demonstrated that surveillance and policing reduce rather than enhance experienced safety for a minority of the study participants.

Introduction

This paper has both a substantive and a methodological aim. On the substantive level it seeks to integrate three hitherto separate strands of literature on the night-time economy (NTE) in cities, emotional and affective geography, and studies of surveillance and policing through a focus on subjectively experienced safety on nights out in the city centre. This focus reflects the by now common attempts of cities to stimulate the local economy and revitalise their city centres by turning them into sites of pleasure and consumption (Hall and Hubbard, 1996; Hannigan, 2005), inter alia through the creation of a vibrant NTE (Chatterton and Hollands, 2003; Roberts and Eldridge, 2009; Shaw, 2010).

Prevention of fear is key to development strategies configured around pleasure and consumption; it is widely agreed that safe and enjoyable spaces will attract more consumers and spending (Chatterton and Hollands, 2002; Helms, 2008). The desire to pre-empt fears at night, particularly in areas where nightlife establishments are concentrated, is also more intense than for day-time consumption spaces. On top of more general concerns about safety and fear (Pain, 2009), "perceptions of the 'hours of darkness' as a time of danger, fear and sin seem to be persistent and deeply embedded" (Hobbs et al., 2003 page 44) in Western culture. Nightlife spaces are emotionally charged space–times in which social norms taken for granted during daytime are more easily disregarded and opportunities for transgressive behaviour arise (Latham and McCormack, 2004; Hubbard, 2005; Williams, 2008). Alcohol consumption is widely considered a key driver of the emotional intensities constitutive of nightlife spaces (Bromley and Nelson, 2002; Crawford and Flint, 2009; Jayne et al., 2011).

Local government and the nightlife industry commonly try to enhance experienced safety through increased surveillance and policing of – what are widely regarded as – incivilities and anti-social behaviours (Van Liempt, 2014). The question nonetheless remains whether common strategies and techniques such as increasing on-street policing, CCTV surveillance and the deployment of private security services are in fact effective in enhancing

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experienced safety (Norris, 2012; Germain, 2013). This is in part because the everyday, embodied experiences of surveillance and policing have only received limited interest in the surveillance studies literature (Koskela, 2003; Friesen et al., 2009; Monahan, 2011).

However, allied to the wider geographical literature on emotions and affect (Pile, 2010), a diversified literature on experienced safety and fear of crime exists in geography (Pain, 2000; Whitzman, 2007; Johansson et al., 2012). A key idea underlying the current study and derived from that literature is that, for consumers in the NTE, safety only becomes an issue in particular situations. It is then that lack of safety or fear of crime emerges. Thus, fear of crime can be understood as an ecological event, emerging from the continuously changing assemblage of material and immaterial elements and agents in which individuals as embodied and sentient human beings find themselves (Brands et al., 2015). So we take from emotional geography research the idea that fear of crime is embodied and relational (Davidson and Milligan, 2004) and build on recent work about affects as ecological events that emerge with surveillance and policing practices (Adey et al., 2013). From surveillance and policing studies (Koskela, 2003, 2012; Hinkle and Weisburd, 2008; Cook and Whowell, 2011; Norris, 2012) we take the notion that the effects of CCTV and policing practices need not necessarily diminish fear of crime among individuals but can also generate an experienced lack of safety. Thus, by integrating studies of the geographies of emotions and fear of crime with studies of surveillance and policing, we can better understand variability and ambiguity in safety experiences and the conditions under which surveillance and policing practices enhance those in the NTE context.

In methodological terms, our research seeks to show that, in specific circumstances and if carefully designed and interpreted, advanced quantitative methods can usefully extend research on experienced safety. Advanced quantitative methods should by no means be privileged over the qualitative approaches that dominate the emotional geography literature (Pain, 2000; Little et al., 2005). Nonetheless, (predominantly) quantitative methods have specific strengths, especially if mixed with qualitative ones. First, they permit large(r) samples of study participants to be considered and therefore lend themselves more easily to the scaling up of results obtained using qualitative methods. This offers important insights in how common or prevalent a certain interaction among elements/events is (e.g., whether more CCTV surveillance increases experienced safety). Secondly, quantitative methods enable researchers to better understand the strength of interactions between elements/events, which facilitates comparisons – e.g. in the relative intensities of effects on experienced safety between live watching of CCTV footage and surveillance by security personnel at a club's entrance.

Thirdly, from a radically constructivist perspective (Law, 2004, 2009; Brown, 2012) quantitative methods enact experienced safety and its relations with surveillance and policing, socio-demographic indicators, etcetera in specific ways. Quantitative methods inevitably entail abstractions – simplifications and selections – that differentiate them from lived experience. If the abstractions at the stage of data collection are such that the questions to study participants in surveys are 'functionally equivalent' (Brown, 2012) – i.e. they reasonably resemble but are not identical – to real-life situations, they produce new insights exactly because they disrupt rather than mimic lived reality. Finally, whilst qualitative research can inform public policy in numerous ways (Pain, 2006b), findings expressed in numbers may travel farther beyond academia and affect policy in a different and complementary manner (Plummer and Sheppard, 2001; Wyly, 2009). In our experience, numbers rather than 'anecdotal' results (no matter how rigorous from an academic point of view those qualitative methods have been applied!) are more likely to mitigate concerns among policymakers.

The current paper seeks to realise the stated substantive and methodological aims through an empirical study among students in the Dutch cities of Rotterdam and Utrecht. More specifically, we report the results of a stated preference experiment during which participants were asked to immerse themselves in a particular nightlife situation, and report on experienced safety by performing rating tasks. The methodological approach is explained in Section 'Methodological approach'. The following section discusses the most important theoretical approaches to experienced (lack of) safety and fear of crime and links these to preliminary research in the NTEs of Utrecht and Rotterdam.

Lack of safety and fear in nightlife areas

Fear of crime and safety

A sizeable literature offers important insights into the nature and extent of fear of crime (Ferraro and LaGrange, 1987; Hale, 1996; Pain, 2000, 2009; Koskela and Pain, 2000; Whitzman, 2007; Johansson et al., 2012). Situational Crime Prevention scholarship understands fear of crime as an individually held experience that can be influenced by "reducing the propensity of the physical environment to support criminal behaviour" (Carmona et al., 2010, page 151). It assumes that alterations to the physical environment will bring about social change and thereby reduce fear of crime (Clarke, 1995; Welsh and Farrington, 2009). Hence, the physical design and layout of nightlife areas is seen as critically important in shaping individuals' fear (Fisher and Nasar, 1992; Carmona et al., 2010). Specific to the urban night is the implementation of street lighting, which is widely considered to enhance safety experiences (Pain et al., 2006; Welsh and Farrington, 2009; Brands et al., 2015). Another body of work in feminist geography and emotional geography holds that fear of crime is socially constituted but individually experienced (Pain, 2000; Sandberg and Tollefsen, 2010). Here fear of crime is both relational and embodied, the "connective tissue that links experiential geographies of the human psyche and physique with(in) broader social geographies of place" (Davidson and Milligan, 2004, page 524).

Safety has received less attention from researchers than fear of crime, although the former is a useful concept in the context of city-centre revitalisation and the NTE because it emphasises positive intensities and is linked to a sense of well-being (Fleuret and Atkinson, 2007; Pain and Smith, 2010; Brands and Schwanen, 2014). Brands and Schwanen (2014) have conceptualised experienced (lack of) safety in nightlife areas as an ecological event that emerges from interactions between the perceiving subject and the continuously changing assemblages of material and discursive elements in which s/he is embedded (see also Anderson, 2009). They summarised the multiplicity of experiences triggered by such interactions in terms of three meta-stable states of experience. In the first and basic state of *absorptive coping* individuals interact with their surroundings as if on auto-pilot. They are not consciously concerned about their safety. Although visitors to nightlife areas tend to be in this state for most of their nights out, a transition in experience whereby nightlife consumers become *alerted* and/or experience *actual danger* is always possible. Being on the alert means that individuals sense a potential threat – there is the possibility that trouble or harm will occur from the assemblage in which they were enmeshed. With actual danger they experience an actual threat characterised by three aspects: physical proximity of one or more persons who may cause harm or trouble; an intention among the other(s) to inflict harm or cause trouble, and individuals feeling unable to escape the threat.

Determinants and triggers of lack of safety

From the existing literature, a range of determinants and triggers can be identified that either facilitate or prevent transitions to being on the alert and experiencing actual danger. Closely allied with the perspective that the physical design and layout of urban space can reduce experienced fear, research – predominantly in criminology and surveillance studies – has investigated the relationships of surveillance and policing with fear of crime. Persons do understand CCTV surveillance in the context of personal safety and often support its application (Ditton, 2000; Zurawski, 2010; Ellis et al., 2013; Germain, 2013), but evidence demonstrating CCTV's effectiveness in inducing experiences of safety is mixed or limited (Koskela, 2002; Pain and Townshend, 2002; Taylor, 2010; Norris, 2012; Germain, 2013). Our earlier work with qualitative methods has shown that CCTV does little to enhance safety in situations of potential or actual threat, especially when CCTV cameras are not watched in real time in control rooms (Brands et al., 2013).

Notwithstanding a sizeable, mainly US-based, literature on the public's perceptions of the police (Kautt, 2011), studies of the effects of police presence on experienced safety are limited. However, Ditton (2000) and Sparks et al. (2001) have reported safety effects of police presence to be considerable greater than those for CCTV surveillance. Our earlier research with qualitative methods has indicated that police presence in nightlife areas is often valued positively in terms of experienced safety, especially in situations when persons experience an actual threat, because they can intervene directly if needed (Brands et al., 2013). To the best of our knowledge, no study has examined in depth if and how private security personnel at the entrance of clubs and bars – door staff or bouncers – enhance nightlife consumers' experiences of safety. They may induce experiences of safety because they are now a common and very visible feature of city-centre nightlife areas across Western Europe (Smith, 2007; Rigakos, 2008) and can – like police officers – intervene immediately in threatening situations.

Many researchers have argued that identity is closely linked to experiences of fear of crime and safety (Pain, 2001; Whitzman, 2007). In quantitative studies identity is often operationalized through categorisations of gender, race, age, which have proven to be important correlates of experiences of fear and safety. Generally speaking, women, ethnic minorities and 'older' persons tend to report greater fears (Pain, 2001; Sandberg and Tollefsen, 2010). Nonetheless, feminist geographers have argued that operationalising identity through such socio-demographic categories is not without problems. Simple indicators of gender, ethnicity and age conceal and conflate a wider range of processes that are important to persons' experienced safety. These processes include first-hand experience and victimisation (Mehta and Bondi, 1999; Koskela and Pain, 2000; Bromley and Stacey, 2012; Johansson et al., 2012). The use of simple indicators of identity also risks glossing over differences in the triggers of fear and causes of victimisation within specific categories of gender, ethnicity and age (Pain, 2001; Koskela, 2002; Day et al., 2003; Ware et al., 2011). There is, however, still value in considering overall differences, for instance between men and women or in ethnic backgrounds, especially if these are linked to the specific situation in which lack of safety emerges (see below).

Individual-level differences in safety experiences are not only linked to identity or past victimisation. Familiarity with particular environments is also important (Koskela and Pain, 2000; Pain and Townshend, 2002; Zurawski, 2010). Carmona et al. (2010, page 149) argue that "those more familiar with the evening/night-time scene, for example, are better able to decode signals, and can assess whether they are threatening and decide what action is to be taken". As Bergson has it (1912), first-hand experiences are sedimented as personal memory that can always become part of and shape embodied actions during encounters at later moments in chronological time. It is also through such memories that we can understand how fear of crime is socially constituted and infused with political discourses, cultural values, rumours, stereotypes and prejudices (Brands and Schwanen, 2014).

It has also been argued that (lack of) safety emerges from the relations between the individual and the particularities of a situation (Pain, 2006a; Hutta, 2009). Others' presence in public space is important in this regard. Individuals feel more comfortable around persons with whom they share important commonalities: "there is a general tendency to fear stereotypical 'others' who are marked out by their colour, class or other impurity and whose presence threatens disorder to mainstream life and values" (Pain, 2000, page 373; England and Simon, 2010; Simonsen, 2013). This was also recognised during our qualitative research with nightlife consumers; ethnic minorities, youth lingering around, and particularly drug addicts and homeless people were repeatedly constructed as undesirable, criminal and even threatening constituents of nightlife spaces. As far as ethnicity is concerned this positioning of the other reflects what Haldrup et al. (2006) have coined practical orientalism. This refers to the ways in which contrasting images between the 'Orient' and 'West' or 'them' and 'us' are not "restricted to the politics of representation but [are] profoundly rooted in sensuous everyday encounters" and hence "developed in the concrete bodily encounters in everyday life" (Haldrup et al., 2006, 173 and 183). During such encounters persons are affected in a variety of ways through which a 'sedimented dominant language' about the other is constantly being (re)produced. The resulting substratum of affect and discourse comes to function as an active force that brings about practices of social exclusion and stereotyping.

Experiences of safety are also relational in the sense that they depend on the time of night; time itself may be a relevant constituent. Even if day- and night-time spaces relate to the same physical area, a first and crucial difference is that darkness affects sensory perception (Morris, 2011) and hence experience (Hubbard, 2005). Day and night spaces also differ in terms of the processes taking place and their functions; when evening falls many commercial and retail facilities close, whilst restaurants, bars and clubs open their doors. Also, surveillance and policing practices tend to be more common, in part as a consequence of discourses according to which the dark "provides various opportunities for transgressions—opportunities not typically available during the daylight hours. Accordingly, night for humans is associated with certain activities and possibilities, whether they entail criminal acts, a rendezvous for lovers, nonconventional behaviors, organizing for rebellion, or even for some, a time when evil incarnate walks the earth" (Williams, 2008, page 518). There is some evidence in support of such discourse: incivilities and crime are prevalent at night, and tend to increase over the course of the night in city-centre nightlife areas (Roberts and Turner, 2005; Rowe and Bavinton, 2011). The cumulative effects of alcohol consumption over the course of the night, in combination with a prevalence of bodily affects (e.g., exhaustion, arousal) and the coming together of many persons on the streets of nightlife areas, may induce uncivilised and transgressive behaviour late at night or in the early morning (Schwanen et al., 2012). Some authors even refer to nightlife areas as hotspots for drinking and crime, effectively foregrounding the particular nature of the space–time (Block and Block, 1995; Bromley and Nelson, 2002; Hopkins, 2004; Ratcliffe, 2012). These dynamics may help to explain why fear of crime and lack of safety may also become more prevalent at night and as the night passes (Thomas and Bromley, 2000; Van Aalst and Schwanen, 2009).

The effects of surveillance and policing on safety are also relational insofar that they may interact with individuals' identity. Koskela (2002), for instance, has argued that "video is unable to identify situations where a [gender] sensitive interpretation of a social situation is needed" (page 263). Examples of such situations include general and sexual intimidation, (verbal) harassment, staring and drunken rowdiness, all of which women tend to fear more than do men. Little progress appears to have been made to examine the effects of CCTV, and other forms of surveillance and policing in relation to other social-demographic markers of identity. For the Dutch context there are hardly any reliable studies of citizens' perceptions of police (Van der Leun and Van der Woude, 2011) and little can be said about whether and how such perceptions are socially differentiated. UK research is also scarce, but when compared to the established US-centred literature, ethnic minorities tend to perceive police somewhat more positively in the UK than the USA (Kautt, 2011). Findings regarding other markers of difference such as age and gender tend to be inconsistent across the US-based literature (Kautt, 2011). One likely reason for lower valuation among ethnic minority groups in US-based studies are reported and perceived racial profiling practices among police (Cochran and Warren, 2012). As far as door staff are concerned, several studies in the UK and the Netherlands have suggested that bouncers sometimes deny entry to, act aggressively towards or otherwise discriminate against ethnic minority youth (Böse, 2005; Boogaarts, 2008; Measham and Hadfield, 2009). Qualitative research among Dutch university students has suggested that ethnic minority youth were less positive about whether door staff made them feel at ease than their native Dutch, white counterparts (Van Aalst and Schwanen, 2009).

The effects of surveillance and policing on experienced safety are not only relational; they may also be paradoxical or ambiguous. CCTV surveillance does not necessarily stimulate safety or security, but can also "exacerbate feelings of mistrust" (Koskela, 2012, page 52; Norris, 2012). In addition, police presence can trigger anxiety, making people question if their safety is at stake (Hinkle and Weisburd, 2008; Cook and Whowell, 2011). Similar responses to the presence and specific practices of police officers in nightlife areas were identified with NTE consumers in our research with qualitative methods (Brands et al., 2015).

Towards the empirical analysis

The previous sub-sections raise five implications for the quantitative analysis of the relationships of safety among consumers with surveillance and policing in the NTE context. First, given the difference between being on the alert and actual danger, it is important to differentiate between situations in which a potential or actual threat is experienced. Secondly, the analysis should consider multiple manifestations of surveillance and policing: CCTV surveillance and the physical presence of police officers and door staff are common and visible attempts to stimulate experienced safety in contemporary NTEs across Western Europe and can be expected to have different effects on safety. With regard to CCTV, it is also relevant to consider whether footage is watched live or not. The third point is that the analysis should take into account effects on safety of individuals' identity and previous experiences of going out.

Fourthly, the analysis should accommodate that safety is relationally constituted. This raises questions about the extent to which the effects of surveillance and policing on safety can be studied in isolation from the particular situations and assemblages in which they emerge. We argue that those effects should be studied in relation to the time of night, the particularities of the threat and the present nightlife crowd. Interactions of different manifestations of surveillance and policing with socio-demographic indicators of identity and previous experiences of going out should be examined as well. Finally, the research should allow for ambiguity: particular manifestations of surveillance and policing may both enhance and diminish experienced safety.

Methodological approach

Challenges of quantification

Despite the benefits outlined in the introduction section, quantification and the use of quantitative methods are less than straightforward if experienced safety is conceptualised as an ecological event that is triggered and mediated by all kinds of elements, processes and other events around an individual. Generic questions, such as 'to what extent do you feel safe when going out in place x?', are not appropriate because they do not create the 'functional equivalence' that Brown (2012) calls for. A shift away from the generic and the universal towards the specific and the particular is required if the research is to be functionally equivalent to lived experience. This can be achieved through a research focus on paradigmatic situations, the specific characteristics of which need to be realistic and commonly recognisable to the persons participating in an empirical study. Drawing on Geertz (1973), we might say that a suitably 'thick' description of a specific situation must be given to participants in a quantitative study when they are asked to indicate how safe they feel. We have therefore reworked the quantitative method known as stated preference (SP) research (Kroes and Sheldon, 1988; Louviere and Timmermans, 1990; Walker et al., 2002; Adamowicz and Deshazo, 2006).

Other than with revealed preference methods that evaluate actual observations, SP research asks participants to project themselves in a particular hypothetical situation. They have to evaluate its characteristics, the values of which are varied systematically (Kroes and Sheldon, 1988; Louviere and Timmermans, 1990). It is common practice in SP research to provide study participants with minimalist, skeleton descriptions of the situation for evaluation (because this facilitates transferability of findings from the site of production to consumption by other researchers and policymakers). This skeleton approach is, however, not commensurable with our conceptualisation of lack of safety as an ecological event. We have therefore adopted a case study approach to SP research by identifying paradigmatic situations of lack of safety on the basis of our ethnographic and interview-based research with young adults participating in the NTEs of various Dutch cities.

Designing the stated preference experiment

The advantages of quantification through a 'thicker' SP experiment come at a price because the huge heterogeneity of situations in which lack of safety may emerge in NTE settings needs to be reduced to one or a few paradigmatic situations. The attributes of those situations also need to be simplified and events and processes (e.g. the presence and actions of police officers in a given site over a particular time span) need to be reduced to fixed states (e.g. 'two police officers are within sight, at some 50 m away' and 'two police officers have been seen a couple of times earlier that evening' in our case). It is, however, exactly the constraints imposed by what Alfred North Whitehead called (1997 [1925], page 59) "well founded" abstractions from the relentless "happenings of the world" that SP experiments require that allow the benefits of quantification and advanced quantitative methods to be realised. Well founded for him meant that "everything that is important in experience" is respected and maintained.

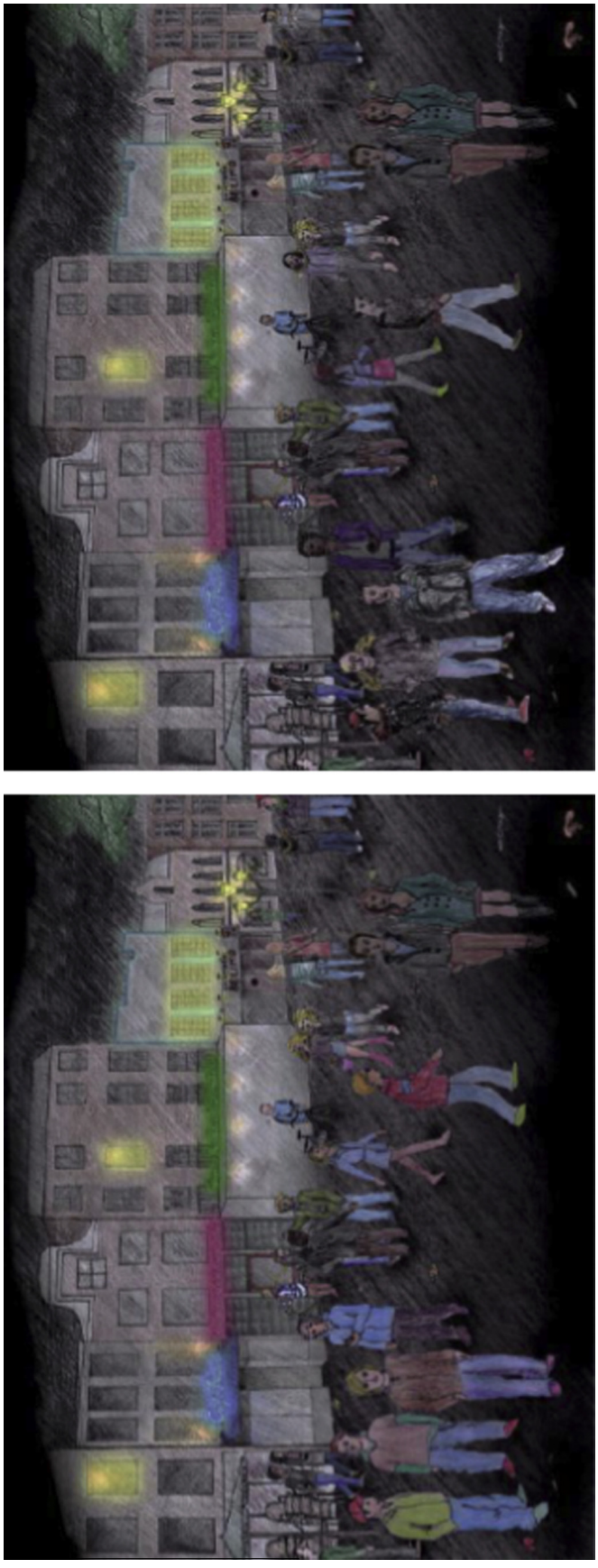

Fig. 1. Drawings of the nightlife areas, each with a different overlay for the present nightlife crowd.

This is why our SP experiment was designed to consider different manifestations of surveillance and policing, time of night, the difference between actual and potential threat and the nature of the nightlife crowd, whilst reducing respondent burden as much as possible. Four versions of the paradigmatic nightlife situation at the heart of the SP study were designed (to reduce respondent burden for individual participants). All versions were situated at the end of the night, around the time bars and clubs in a nightlife area are closing and there is a large crowd of consumers in outdoor public spaces, gradually going home (or elsewhere). As safety only becomes an issue when some sort of threat is experienced (Brands and Schwanen, 2014), two types of threat were considered: potential threat was operationalized through the presence of a tense atmosphere – which according to participants in earlier interviews exemplified the state of 'being on the alert' – and actual threat through the approach of a verbally abusive person, which for those interviewees exemplified a situation of 'actual danger'. From previous studies on what happens over the course of nights in areas where bars and clubs are concentrated (Roberts and Turner, 2005; Schwanen et al., 2012) we may infer that such threats become more prevalent as the night progresses. Because our interest lay in understanding the effects of the prospect of verbal abuse on experienced safety, the identity of that person was left undefined in the explanation to study participants, meaning they had to imagine that identity themselves. As this may introduce variations between study participants we recommend that more information on the would-be perpetrator is provided in future research. Two versions of the crowd were created. In one it consisted predominantly of revellers of Caucasian/white ethnicity; in the other it was ethnically mixed and consisted of Caucasian, Arabic and black or Surinamese/Antillean youth (the dominant ethnic minorities in the Netherlands). Juxtaposing the types of threat and compositions of the nightlife crowd resulted in four versions of the paradigmatic nightlife situation. Study participants were randomly allocated to one of these versions.

The particularities of the paradigmatic nightlife situation were communicated to research participants using both textual description and visual representations created in collaboration with an artist (Fig. 1). According to Rose (2012), the use of visual materials helps participants to move beyond the discursive realm and provides (better) access than mere text to the registers of the sensory and affective. This we considered important in light of Morris's (2011) discussion of the differences in sensory perception between night and day time. We did not use photographs because these would introduce all kinds of ethical issues; these are eliminated by the use of drawings. The artist worked with us to satisfy three key requests. The drawings had to look nocturnal, which was ensured by the use of shades of black/grey and spatial differentiation in the intensity of light. Second, differences in the (ethnic) composition of the crowd had to be clear when the drawings were directly compared. This was ensured by depicting predominantly white youth in one drawing against greater ethnic diversity in the other and by subtly varying clothing styles (such that those that in Dutch public perception are more common among youth from Surinamese/Antillean and Arabic descent are more clearly visible in the drawing with a mixed crowd). Finally, while the drawings had to resemble the sort of situations participants might encounter in real life, we asked the artist not to depict an actually existing nightlife area to reduce the effects of familiarity with the pictured area on participants' evaluations. Note that the viewpoint from which the participant observes the square is different from what it would in a real situation. This was done on purpose: in combination with the freezing of the crowd's actual movements, the viewpoint sensitises participants towards who/what is present on the square. To avoid concerns over the drawings among participants, we piloted the experiment with students attending secondary school and higher education and asked them specifically to outline issues regarding the drawings; none were raised. Nonetheless, for future research it is useful to also work with animations depicting the setting from the perspective of someone walking/standing on the square and see if results differ from when static representations are utilised.

Table 1
The manifestations of surveillance and policing in the SP experiment.

Variable	Attribute levels
CCTV positioning	A CCTV camera is situated above your head A CCTV camera is situated some 50 m away
CCTV watching	Camera footage is recorded; no live watching Camera footage is watched live
Police	Two police officers are within sight, at some 50 m away Two police officers have been seen a couple of times earlier that evening
Door staff	No door staff are within sight at the bars and clubs Three door staff are within sight some 50 m away, at the bars and clubs

Asked to indicate how safe they felt in the represented situation, study participants were provided with different combinations of four manifestations of surveillance and policing: police officers patrolling the nightlife area, door staff at clubs, the location of CCTV cameras, and live watching of CCTV footage. All manifestations were reduced to binary attributes (Table 1), and four manifestations consisting of two attributes yield 16 possible combinations in total. As asking participants to evaluate all of these may exceed participants' attention span, we used specially designed algorithms (Box and Hunter, 1961; Louviere and Timmermans, 1990; NIST/SEMATECH, 2012) to reduce the number of surveillance and policing profiles for evaluation to eight. According to the SP literature (Kroes and Sheldon, 1988; Walker et al., 2002) eight profiles is a manageable number for study participants, minimising fatigue and boredom effects on the final results. To reduce sequence effects, the eight profiles presented to individual participants were computer randomized. Eight times, then, participants were asked "On a scale of one (not safe at all) to ten (very safe), how safe would you feel in the following situation?" (Fig. 2). A ten-point rating scale was preferred because this is commonly used in primary and secondary education to mark assignments and tests in the Netherlands.

Data collection

The SP experiment was embedded in an online survey about nightlife consumption, which also asked about going out practices (frequency of going out and most frequented city when going out), and past experiences (victimisation and denial of entrance) and socio-demographic markers of identity (gender, ethnicity, age). The survey was conducted among students in the Dutch cities of Utrecht and Rotterdam because the study is part of a broader research programme investigating surveillance and policing in nightlife areas in Utrecht and Rotterdam. There are nonetheless also important differences between the two cities which may have ramifications for how safety on nights out is experienced. In Rotterdam nightlife crowds are much more ethnically diversified (Schwanen et al., 2012) and the city is the leading example in the Netherlands of 'tough' and 'zero tolerance' surveillance and policing in the NTE context and more generally (Van Liempt, 2014).

The focus is on young people because they visit city-centre nightlife areas most frequently. Participants were recruited via educational institutions; we hoped that this would introduce heterogeneity in the sample in terms of the (location of) establishments visited and in the frequency with which participants go out. A clear disadvantage of this strategy is that the sample cannot be

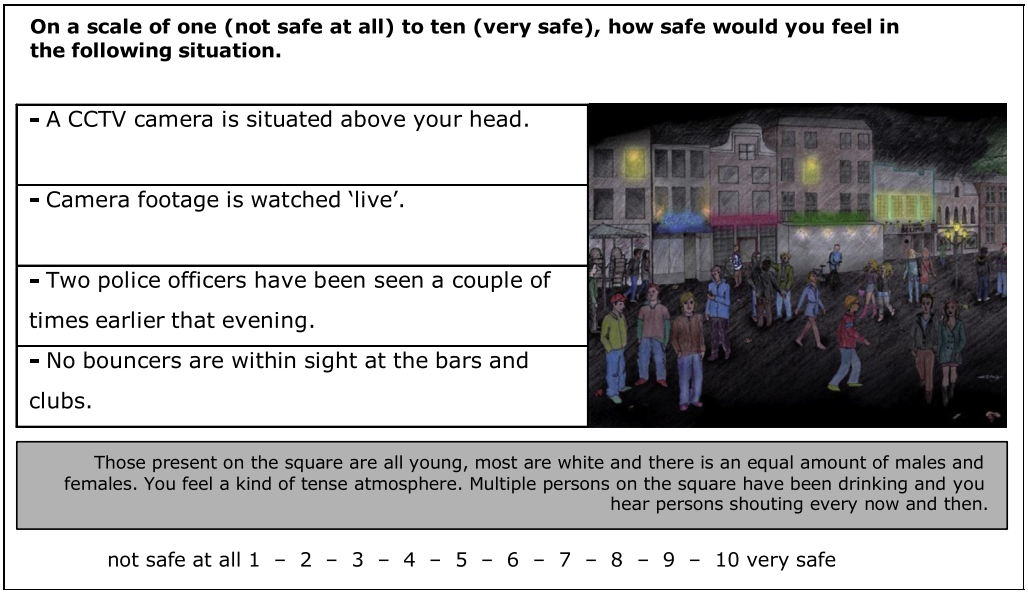

Fig. 2. An example of the rating task for the version of actual threat (verbally abusive person) and the ethnically homogeneous nightlife crowd.

considered representative of all young people of Utrecht or Rotterdam; young people in full time employment or registered as unemployed are not included in the study. Nonetheless, the final sample of 940 students is internally very heterogeneous, representing both genders (56.5% female), and an appropriate range of difference in terms of ethnicity (85.9% Dutch and Western, 14.1% non-Western[1]) and education (20.2% traditional university, 31.0% applied university, 29.8% vocational education, and 19.0% secondary education); the average age is 20.2 years. This diversity stems in part from our sampling of institutes of both secondary and tertiary education and offering different types of courses and degrees. For ethical reasons 16 was established as the minimum age for participation as this was the legal minimum age for alcohol consumption in the Netherlands at the time of study (Spring 2012).

Multi-level analysis

By regressing the (8 profiles $*$ 940 participants =) 7520 rating scores on the variables that measure surveillance and policing, the nature of the threat, the character of the crowd, socio-demographic indicators of identity, and going out practices and experiences, we can identify which variables are most strongly correlated with the level of experienced safety. Because each participant evaluated eight profiles, individual ratings may not be independent from each other and it may not be possible to use standard linear (OLS) regression modelling. Multilevel regression analysis (Hox, 2010; Snijders and Bosker, 2011) can be employed to test whether this is the case and offers an alternative modelling framework in which the total variation in safety scores can be decomposed into two parts – a 'between-individual' part that can be attributed to differences between participants, and a 'within-individual' part that captures the variation among the eight profiles evaluated by each individual. Technical explanations are available elsewhere (Hox, 2010; Snijders and Bosker, 2011); suffice to say that multilevel regression analysis consists of the specification of regression equations at different levels – the question (level 1) and the individual (level 2). Included variables and coefficients are either 'fixed' or 'random'. Fixed variables and coefficients are associated with indicators of surveillance and policing, socio-demographic indicators of identity, etcetera, whereas random variables are summarised through variance terms and accommodate the multilevel structure in the data. When a model contains multiple variance terms at the level of the question or the participant, it usually also contains one or more covariance terms that express relations between the variance terms (Hox, 2010). These can be interpreted meaningfully but will not be discussed below due to space constraints.

The use of multilevel regression analysis has another important advantage (see also Duncan and Jones, 2000): it also allows us to move beyond the computation of 'average' effects of a given independent variable on subjectively experienced safety. Rather than estimating what the average effect of, say, watching CCTV footage live on safety is across all study participants, we can estimate the extent of variability around – and hence also ambiguity associated with – that average effect.

Below a series of models is presented in which independent variables are included and added in four steps:

- *Step 1:* intercept (constant) only: this model allows the total variation in safety scores to be decomposed in between-individual and within-individual parts and offers a way to test whether a multilevel model is indeed required.
- *Step 2:* indicators for nature of the threat, nightlife crowd and surveillance and policing.
- *Step 3:* indicators for socio-demographic markers of identity – gender, ethnicity and age.[2]
- *Step 4:* indicators for going out practices and past experiences.

Steps 2 to 4 each consist of two models. The first of these reports the effects on safety of the added indicators as such, whereas the second analyses if and how these effects differ according to indicators added in the same or a previous step.

[1] According to the official definition used by the Dutch government (Statistics Netherlands, 2013), persons are of non-Western descent if they themselves, or at least one of their parents, are born in Africa, Latin America, Asia (excluding Indonesia and Japan) or Turkey.

[2] Indicators of education were too strongly correlated with age and could not be included in the models.

Results

Multilevel structure

In the model with only an intercept (Model 1, Table 2), the coefficient for the constant is estimated to be 6.5 and suggests that participants *on average* feel reasonably safe in the situations presented to them. The two variance terms in this model are both significantly greater than zero with 99% confidence, and indicate that (2.324/(2.324 + 1.863)=) 56% of all variation in the safety scores can be attributed to differences between participants. In our case the assumptions underlying standard regression analysis are violated, and the use of a more complex multilevel structure is required for statistical reasons.

Threat, crowd and surveillance and policing

Model 2 (Table 2) shows the effects of the nature of the threat and the nightlife crowd. The approach of a verbally abusive person diminishes safety by more than 1/3 point compared to experiencing a tense atmosphere. This result confirms that greater fear results from a threat that is perceived to be more concrete and directed at the person, and offers quantitative support for the distinction between 'being on the alert' and 'actual danger' in Brands and Schwanen (2014). Being surrounded by an ethnically mixed crowd reduces safety on average by almost 0.3 point relative to a predominantly Caucasian crowd, and is statistically significant with at least 95% confidence. This seems to suggest that a 'practical orientalism' (Haldrup et al., 2006; see Section 'Lack of safety and fear in nightlife areas') is also at work in the context of safety in the NTE of large Dutch cities. The current findings are perhaps not surprising in light of open discussions in the media and political sphere in recent years of the failure of multi-culturalism and the rise to popularity of anti-immigration politics in the Netherlands and elsewhere in North-West Europe.

The effects on safety of surveillance and policing are also shown in Model 2. The safety score increases by approximately 0.8 point on average in a situation when police officers or door staff are within sight. This increase is almost double compared to that of watching CCTV live rather than merely recording footage, and more than five times that of the presence of CCTV in close proximity compared to 50 m away. These findings align with our previous research using qualitative methods. It indeed appears that agents of surveillance

Table 2
Estimation results for safety scores, Models 1–3.[a]

	M1: intercept-only model			M2: effects of surveillance and policing, and situation			M3: M2 plus interaction terms		
	B	*SE*	*T*-stat	*B*	*SE*	*T*-stat	*B*	*SE*	*T*-stat
Fixed part									
Intercept	6.515	0.052	125.29***	5.727	0.094	60.93***	5.976	0.102	58.59***
Level 1 attributes									
Police (absent from sight = 0)									
50 m away				0.778	0.037	21.03***	0.488	0.061	8.00***
Door staff (absent from sight = 0)									
50 m away				0.840	0.035	24.00***	0.667	0.057	11.70***
CCTV watching (recording = 0)									
Live				0.428	0.027	15.85***	0.428	0.027	15.85***
CCTV positioning (50 m away = 0)									
Above one's head				0.145	0.023	6.30***	0.145	0.023	6.30***
Level 2 attributes									
Nightlife crowd (homogeneous white = 0)									
Heterogeneous				−0.278	0.103	2.70***	−0.422	0.118	3.58***
Threat (tense atmosphere = 0)									
Verbally abusive person				−0.362	0.103	3.51***	−0.737	0.118	6.25***
Interactions									
Police * heterogeneous crowd							0.151	0.072	2.10**
Police * verbally abusive person							0.453	0.072	6.29***
Door staff * heterogeneous crowd							0.116	0.068	7.71***
Door staff * verbally abusive person							0.244	0.068	3.59***
Random part									
Variance intercept level 1	1.836	0.032	57.38***	0.859	0.023	37.35***	0.859	0.023	37.35***
Variance intercept level 2	2.324	0.118	19.69***	3.334	0.175	19.05***	3.281	0.172	19.08***
Variance police				0.881	0.061	14.44***	0.819	0.059	8.80***
Variance door staff				0.718	0.054	13.30***	0.696	0.053	13.13***
Variance CCTV watching				0.236	0.033	7.15***	0.234	0.033	7.09***
Variance CCTV positioning				0.075	0.025	3.00***	0.072	0.025	2.88***
Cov intercept * police				−0.739	0.079	9.35***	−0.681	0.076	8.96***
Cov intercept * door staff				−0.644	0.074	8.70***	−0.610	0.072	8.47***
Cov intercept * CCTV watching				−0.343	0.055	6.24***	−0.344	0.055	6.25***
Cov police * door staff				0.301	0.041	7.34***	0.265	0.040	6.63***
Cov police * CCTV watching				0.134	0.031	4.32***	0.122	0.030	4.07***
Cov door staff * CCTV watching				0.173	0.029	5.97***	0.167	0.029	5.76***
Cov CCTV watching * CCTV positioning							0.030	0.018	1.67*
Deviance (−2 LogLikelihood)	28,174.4			25,571.5			25,518.3		
Model improvement (χ^2)				2602.9 (relative to M1)			53.2 (relative to M2)		
Statistical significance				0.001			0.01		
N cases	7520			7520			7520		

[a] Dependent variable: Safety scores from 1 (not safe at all) to 10 (very safe).
* $p < 0.10$.
** $p < 0.05$.
*** $p < 0.01$.

and policing that can intervene if required in the concrete 'here and now' enhance safety most (Brands et al., 2013).

There are, however, quite sizeable and statistically significant differences between individuals around the average effects of all surveillance and policing indicators. Therefore, the fixed (average) effects on safety of visible police and door staff presence and CCTV positioning and watching should be interpreted in conjunction with this variation. We can do this by calculating the standard deviations (square root) of the variance terms for surveillance and policing. Adding and subtracting these standard deviations from the coefficients for the fixed (average) variables generates a range of values rather than a point estimate for each manifestation of surveillance and policing. This range includes 67% of the individual measurements closest to the mean and is −0.161 to +1.717 for visible proximity of police officers (relative to them being absent from sight), −0.007 to +1.687 for the visible presence of door staff (compared to none within sight), −0.129 to +0.419 for CCTV above one's head (vis-à-vis to some 50 m away), and −0.058 to +0.914 for live watching of CCTV footage (versus merely recording). Not only do these effects differ markedly across study participants; for a minority of the latter the tested manifestations of surveillance and policing *negatively* affect experienced safety. As all lower bounds on the estimated intervals are below zero, it would appear that in at least (100–67/2=) 16% of the ratings the effects of surveillance and policing are not in agreement with expectations on the basis of prevailing discourses about city-centre revitalisation. This percentage is likely to be higher for the visible proximity of police officers and the positioning of CCTV over one's head. Given our focus on situations in which the benefits of more extended surveillance and policing can be expected to pay the greatest dividend, these results to some extent challenge the currently popular discourse that (more) surveillance and policing in city-centre nightlife areas (and other consumption spaces) will increase experienced safety. Ambiguity in the effects on safety of surveillance and policing should not be ignored or side-lined. Had simpler versions of standard regression analysis been employed, this ambiguity might have remained masked.

The point that the effects on safety of surveillance and policing are complex is also evident from Model 3. This model indicates the relational character of the effects of the visible presence of police officers and door staff. The effects of such presence are greatest when the present nightlife crowd is more ethnically heterogeneous and with the approach of a verbally abusive person. These results reinforce the earlier points about practical orientalism and about police officers and door staff – human agents – being more effective than CCTV in intervening in situations perceived as threatening. They may also suggest that the presence of human agents is more effective in soothing inter-ethnic tensions in public spaces in an NTE context.

Markers of identity

The effects of gender, ethnicity and age are shown in Model 4 (Table 3); all three socio-demographic indicators of identity are statistically significantly related to experienced safety. In terms of relative importance, the effects of gender and ethnicity are smaller than for the visible proximity of police officers and door staff but greater than for CCTV surveillance and the nature of the threat under consideration or the nightlife crowd. With regard to age, participants aged 25 are estimated to feel about half a point safer than their 16 year old counterparts. This difference may reflect greater familiarity with the nightlife situations under consideration and/or greater skill in how to respond to such situations among the older participants. Compared to respondents from a Dutch or Western background, those with an Arabic background score about 0.6 point lower. As other studies have indicated that persons from a non-Western origin participate less in Dutch (mainstream) nightlife (Boogaarts, 2008; Schwanen et al., 2012), unfamiliarity with the setting provided to these persons may also be important here. It could, however, also be the case that persons from non-Western origin avoid these settings because they feel less safe or comfortable and more vulnerable in public spaces in cities more generally. The observation that women report lower scores compared to men – here 0.6 point – concurs with the literature in feminist geography on fear of crime and safety (Koskela and Pain, 2000; Pain, 2000; Little et al., 2005; Whitzman, 2007).

Model 5 (Table 3) considers if and to what extent the effects of surveillance and policing depend on participants' socio-demographic indicators of identity; only results that were statistically significant with at least 90% confidence have been retained in the final model. Of interest here is how the effects of the visible proximity of police officers and the live watching of CCTV footage are independent from participants' socio-demographic indicators of identity. This does not, however, extend to the visible presence of door staff or the position of CCTV cameras. Youth from an Arabic or otherwise non-Western background report lower effects on perceived safety for the visible presence of door staff compared to those from a Dutch or Western background. Yet, the positioning of CCTV cameras matters more to youth from Arabic descent: having a camera above their head increases safety by about 1/3 point for them compared to other ethnic groups. These results are not only in line with previous research suggesting that non-White revellers experience or at least consider the possibility of discrimination by 'bouncers' in urban nightlife; they also suggest that youth from Arabic descent understand CCTV surveillance in a different, more positive way. Perhaps they consider CCTV cameras recording footage a more neutral (and hence beneficial) technique that is less affected by stereotyping and discrimination on the basis of appearance. The effect of door staff is also gendered: female participants' safety is enhanced to a greater extent by their visible proximity than that of males is. This is broadly in line with earlier ethnographic research as part of the wider research programme, according to which door staff are more likely to let girls and young women enter nightlife establishments and are also more protective of them. While both police officers and door staff are characterised by sizeable main effects (in contrary to CCTV surveillance), the above suggests that a key difference with regard to experienced safety is that the former are more of a friend to everybody. The appeal of the latter appears to be differentiated more clearly.

Model 5 also indicates that being verbally abused instils substantially less fear in study participants from Surinamese/Antillean descent compared to other ethnic groups. Perhaps participants from this group are more used to verbal abuse in real life situations, though they may also have imagined the identity of the would-be perpetrator differently from participants from other ethnic backgrounds (see Section 'Designing the stated preference experiment'); our data do not allow us to explore these conjectures further. A notable finding is also that, with at least 90% confidence, the effect of nightlife crowd on experienced safety does not depend on participants' ethnic background. This means that the aforementioned negative effect of an ethnically diverse nightlife crowd (Section 'Threat, crowd and surveillance and policing') is not a consequence of the over-representation of Caucasian youth among the study participants (Section 'Data collection'). Irrespective of participants' ethnic identity, a more ethnically heterogeneous nightlife crowd seems to be associated with a reduced sense of personal safety.

Going out practices and past experiences

Model 6 (Table 4) shows the effects of the frequency of going out, city most visited when going out and various categories of victimisation that respondents may have experienced before. Most

Table 3
Estimation results for safety scores, Models 4–5.[a]

	M4: M2 plus socio-demographic profile			M5: M4 plus interaction terms		
	B	*SE*	*T*-stat	*B*	*SE*	*T*-stat
Fixed part						
Intercept	4.935	0.382	12.92***	5.058	0.381	13.28***
Level 1 attributes						
Police (absent from sight = 0)						
50 m away	0.778	0.037	21.03***	0.778	0.037	21.03***
Door staff (absent from sight = 0)						
50 m away	0.840	0.035	24.00***	0.637	0.051	12.49***
CCTV watching (recording = 0)						
Live	0.428	0.027	15.85***	0.428	0.027	15.85***
CCTV positioning (50 m away = 0)						
Above one's head	0.145	0.023	6.30***	0.135	0.023	6.30***
Level 2 attributes						
Nightlife crowd (homogeneous = 0)						
Heterogeneous	−0.299	0.101	2.96***	−0.283	0.101	2.80***
Threat (tense atmosphere = 0)						
Verbally abusive person	−0.394	0.101	3.90***	−0.454	0.104	4.37***
Gender (male = 0)						
Female	−0.593	0.102	5.81***	−0.793	0.106	7.48***
Ethnicity (Dutch/western = 0)						
Arabic	−0.588	0.282	2.09**	−0.571	0.297	1.92*
Surinamese/Antillean	0.085	0.221	0.38	−0.423	0.294	1.44
Other non-western	0.077	0.224	0.34	0.351	0.233	1.51
Current age (years)	0.058	0.018	3.22***	0.058	0.018	3.22***
Interactions						
Female ∗ door staff				0.436	0.065	6.71***
Arabic ∗ door staff				−0.328	0.181	1.81*
Other non-western ∗ door staff				−0.612	0.144	4.25***
Arabic ∗ CCTV positioning				0.323	0.129	2.50**
Surinamese/Antillean ∗ verbally abusive person				1.153	0.441	2.61***
Random part						
Variance intercept level 1	0.858	0.023	37.30***	0.858	0.023	37.30***
Variance intercept level 2	3.148	0.166	18.96***	3.134	0.165	18.99***
Variance police	0.881	0.061	14.44***	0.881	0.061	14.44***
Variance door staff	0.717	0.054	13.28***	0.643	0.051	12.61***
Variance CCTV watching	0.234	0.033	7.09***	0.234	0.033	7.09***
Variance CCTV positioning	0.073	0.025	2.92***	0.071	0.025	2.84***
Cov intercept ∗ police	−0.757	0.078	9.71***	−0.763	0.078	9.78***
Cov intercept ∗ door staff	−0.574	0.071	8.08***	−0.548	0.069	7.94***
Cov intercept ∗ CCTV watching	−0.336	0.054	6.22***	−0.336	0.054	6.22***
Cov police ∗ door staff	0.301	0.041	7.34***	0.300	0.040	7.50***
Cov police ∗ CCTV watching	0.131	0.031	4.23***	0.130	0.031	4.19***
Cov door staff ∗ CCTV watching	0.172	0.029	5.93***	0.165	0.028	5.89***
Cov CCTV watching ∗ CCTV positioning	0.030	0.018	1.67*	0.031	0.018	1.72*
Deviance (−2 LogLikelihood)	25,522.3			25,443.1		
Model improvement (χ^2)	49.3 (relative to M2)			79.1 (relative to M4)		
Statistical significance	0.01			0.01		
N cases	7520			7520		

[a] Dependent variable: Safety scores from 1 (not safe at all) to 10 (very safe).
* $p < 0.10$.
** $p < 0.05$.
*** $p < 0.01$.

indicators are not statistically significantly related to experienced safety, and overall model 6 is not statistically superior to model 4. Still, it is shown that participants who have been followed on a night out in the past report statistically significantly lower safety scores. Although only statistically significant with 90% confidence, participants who go out more frequently report higher safety ratings. Greater experience and familiarity with nightlife situations likely explain this effect.

A wide range of interactions of socio-demographic markers of identity (gender, ethnicity, age) with practices and experience of going out have been tested, but only a few rendered statistically significant results (Model 7, Table 4). Whereas the geography of emotions literature, and feminist geographers especially, have linked gender differences in experienced safety to fear for particular types of victimisation (Koskela and Pain, 2000; Pain, 2000; Brownlow, 2005), no gender differences could be established in relation to memories of particular types of victimisation in this study. We should however keep in mind that such differences might reflect our narrow focus on participants' experiences of victimisation in nightlife contexts, whereas the emotional geographies, and feminist literatures especially, consider a wider range of experiences in both the public and private sphere. The results do suggest that youth who go out primarily in the city centres of Rotterdam or Utrecht feel less safe when experiencing a more ethnically heterogeneous nightlife crowd. This is possibly explained in reference to the sizeable ethnic minorities living in these cities, meaning that those participants experience inter-ethnic differences more frequently through encounters (Haldrup et al., 2006). Additionally, the model suggests that participants who have been abused verbally in the past feel less safe when asked to imagine

Table 4
Estimation results for safety scores, Models 6–7.[a]

	M6: M4 plus going out practices and experiences			M7: M6 plus interaction terms		
	B	*SE*	*T*-stat	*B*	*SE*	*T*-stat
Fixed part						
Intercept	4.787	0.401	11.94***	4.692	0.408	11.50***
Level 1 attributes						
Police (absent from sight = 0)						
50 m away	0.778	0.037	21.03***	0.708	0.075	9.44***
Door staff (absent from sight = 0)						
50 m away	0.840	0.035	24.00***	0.698	0.070	9.97***
CCTV watching (recording = 0)						
Live	0.428	0.027	15.85***	0.428	0.027	15.85***
CCTV positioning (50 m away = 0)						
Above one's head	0.145	0.023	6.30***	0.145	0.023	6.30***
Level 2 attributes						
Nightlife crowd (homogeneous = 0)						
Heterogeneous	−0.299	0.100	2.99***	0.002	0.163	0.01
Threat (tense atmosphere = 0)						
Verbally abusive person	−0.400	0.101	3.96***	−0.305	0.110	2.77***
Gender (male = 0)						
Female	−0.575	0.115	5.00***	−0.576	0.115	5.00***
Ethnicity (Dutch/Western = 0)						
Arabic	−0.550	0.283	1.94*	−0.547	0.282	1.93*
Surinamese/Antillean	0.137	0.224	0.61	0.128	0.223	0.57
Other non-western	0.149	0.225	0.66	0.144	0.224	0.64
Current age (year)	0.052	0.019	2.74***	0.052	0.018	2.88***
Frequency of going out (Less than once a month = 0)						
At least once a month	0.209	0.122	1.71*	0.014	0.140	0.1
Most visited city (other = 0)						
Utrecht	0.154	0.132	1.17	0.407	0.180	2.26**
Rotterdam	0.077	0.118	0.65	0.297	0.164	1.81*
Victimisation						
Whistled at before (yes = 1)	0.030	0.158	0.19	0.051	0.157	0.32
Stared at before (yes = 1)	0.152	0.157	0.97	0.143	0.156	0.92
Intimidated before (yes = 1)	0.122	0.180	0.68	0.132	0.179	0.74
Verbally abused before (yes = 1)	−0.074	0.160	0.46	0.200	0.202	1.99
Followed before (yes = 1)	−0.619	0.208	2.98***	−0.656	0.208	3.15***
Been in a fight before (yes = 1)	0.156	0.153	1.02	0.345	0.162	2.13**
Groped before (yes = 1)	0.047	0.165	0.28	0.052	0.164	0.32
Interactions						
Frequency of going out * police				0.167	0.087	1.92*
Frequency of going out * door staff				0.188	0.080	2.35**
Utrecht * heterogeneous crowd				−0.536	0.257	2.09**
Rotterdam * heterogeneous crowd				−0.444	0.230	1.93*
Verbally abused before * verbally abusive person				−0.533	0.267	2.00**
Been in a fight before * police				−0.329	0.098	3.36***
Random part						
Variance intercept level 1	0.858	0.023	37.30***	0.858	0.023	37.30***
Variance intercept level 2	3.124	0.165	18.93***	3.101	0.164	18.91***
Variance police	0.881	0.061	14.44***	0.861	0.061	13.45***
Variance door staff	0.717	0.054	13.28***	0.712	0.054	13.19***
Variance CCTV watching	0.234	0.033	7.09***	0.234	0.033	7.09***
Variance CCTV distance	0.074	0.025	2.96***	0.074	0.025	2.96***
Cov intercept * police	−0.761	0.078	9.76***	−0.752	0.077	9.77***
Cov intercept * door staff	−0.586	0.071	8.25***	−0.587	0.071	8.27***
Cov intercept * CCTV watching	−0.338	0.054	6.26***	−0.339	0.054	6.28***
Cov police * door staff	0.301	0.041	9.71***	0.291	0.041	7.10***
Cov police * CCTV watching	0.131	0.031	4.23***	0.132	0.030	4.40***
Cov door staff * CCTV watching	0.172	0.029	5.93***	0.176	0.029	6.07***
Cov CCTV watching * CCTV positioning	0.030	0.018	1.67*	0.030	0.018	1.67*
Deviance (−2 LogLikelihood)	25,505.7			25,477.9		
Model improvement χ^2	16.5 (relative to M4)			27.8 (relative to M6)		
Statistical significance	>0.05			0.01		
N cases	7520			7520		

[a] Dependent variable: Safety scores from 1 (not safe at all) to 10 (very safe).
* $p < 0.10$.
** $p < 0.05$.
*** $p < 0.01$.

a verbally abusive person is approaching compared to experiencing a tense atmosphere. Also, participants who have been in a fight on a night out in the past report lower effects on safety for the visible presence of police officers. Possibly they are more sceptical about officers' capacities to prevent or timely intervene in situations characterised by some degree of threat. Finally, the model suggests that

youth who go out less frequently are less affected by differences in the visible presence of police officers and bouncers. Perhaps these participants' responses are less based on first-hand experiences and more on hearsay and media discourses, in which negative experiences with those agents are often privileged and exaggerated.

Conclusion

This paper has analysed safety, surveillance and policing in the night-time economy (NTE) by (re)turning to numbers. Building on the existing literature and previous research with young adults going out in city-centre nightlife areas in the Netherlands, we have carefully designed a stated preference (SP) experiment and employed multilevel modelling. In methodological terms the research suggests that advanced quantitative methods can – if carefully designed – offer a useful and robust complement to the use of qualitative methods to study fear of crime and safety as situated, embodied and emplaced emotions. In substantive terms there are four headline findings from our study among youth in education in the Dutch cities of Rotterdam and Utrecht.

First, we find substantial differences in the degree to which police officers, door staff and CCTV cameras can affect experiences of safety in the nightlife settings presented to our participants. Even if this result is in line with *a priori* expectations based on previous research with qualitative research methods (and hence validates our results), a specific contribution the current approach makes to the literature is the possibility to analytically separate, quantify and compare differences in the effects between these agents of surveillance and policing. This study uniquely shows that, at least for the sample considered, the effect on participants' experienced safety of visible proximity of police and door staff is more than five times bigger than that of proximity to a CCTV camera. The difference of police and door staff with CCTV surveillance is reduced to approximately two times if cameras are watched in real time in control rooms.

Secondly, the study is the first to quantitatively demonstrate that the effects of the proximity of police officers and door staff on participants' experience of safety are relational and depend on the particularities of situation. Those effects are greatest when participants experienced actual danger compared to being alerted and when the nightlife crowd is more ethnically mixed compared to a crowd of predominantly Caucasian/white youth. These findings can be expected because experienced safety should be seen as situated, embodied and emplaced emotion (Davidson and Milligan, 2004) and because in the SP experiment actual danger and presence of a more ethnically diverse nightlife crowd reduce safety. It is nonetheless noteworthy that in those circumstances the effect of CCTV positioning and watching regime do not have greater effects compared to situations in which participants are on the alert and amidst a predominantly Caucasian/white crowd.

Another novel finding regarding the relational character of effects of surveillance and policing is that the effects of surveillance and policing are also systematically dependent on participants' ethnic identity. The presence of door staff is appreciated clearly less by youth from Arabic or an otherwise non-Western background than by those from a native Dutch/Western background. These findings concur with popular and media discourses in the Netherlands which suggest discrimination of non-white youth is rather common among door staff at Dutch bars and clubs, and research with qualitative methods according to which youth from Arabic descent fear being stopped when, and banned from, entering clubs (Boogaarts, 2008; Van Aalst and Schwanen, 2009).

Thirdly, the study confirms the finding from earlier research that the effects of surveillance and policing can be ambiguous, yet is one of the first to indicate for how many people this might be the case. For at least for 16% of the participants in this study, the presence or proximity of different manifestations of surveillance and policing actually *reduces* experienced safety. Finally, gender, ethnicity and victimisation are also associated with subjectively experienced safety and results are broadly in line with results reported in the literatures. However, our findings differ from the existing (geographical) literature on fear of crime and emotion (Pain, 2000; Whitzman, 2007; Johansson et al., 2012) in suggesting that the magnitude of the (main) effects of gender, ethnicity and victimisation are relatively small. Although the (main) effects for gender and ethnicity on the score for subjective safety are sizeable with approximately ±0.6 point, they are outweighed by some 30% by those of the visible presence of door staff and police officers. Also, out of a total of six, only one type of victimisation, having been followed when going out in the past, is statistically significantly ($p < 0.10$) related to experienced safety. These findings might be specific to the sample that has been recruited and reflect the use of only simple indicators of gender, ethnicity and victimisation that cannot account for the subtleties of experiences and within-category differences. Alternately, they can (also) be interpreted as indicating that advanced quantitative methods are indeed capable of generating new insights on the relative intensities of the events and elements that shape the experience of safety.

The findings are not equivocally supportive of the common assumption that greater surveillance and more extensive policing will enhance experiences of safety among visitors of city-centre NTEs. On the basis of the study it would be rather difficult to legitimize the installation of more CCTV cameras or live watching of recorded footage from nightlife areas on the ground that they will markedly enhance experiences of safety among visitors of city-centre NTEs in the Netherlands. Indeed, the assumption in much policy discourse that surveillance and policing aided by CCTV cameras will reduce fear of crime and enhance safety experiences may be too strong for nightlife spaces. It is quite conceivable that in nightlife spaces, especially over the course of the night when alcohol consumption increases and emotions intensify, the capacity of CCTV systems to enhance self-restraint in potential perpetrators of incivilities or crime is considerably diminished (Brands et al., 2013). While all of the "world is both constructed and lived through the emotions" (Anderson and Smith, 2001: 7), this is especially true of nightlife spaces (Latham and McCormack, 2004; Hubbard, 2005). The assumption that CCTV enhances safety experience somehow seems too rational in the NT context, under-appreciating the full significance of the registers of the sensory and affective to how Dutch students experience potential and actual threat on a night out in the city.

Additionally, the conclusion that the effects of the presence of door staff depend on consumers' ethnicity raises important questions about whether surveillance and policing interventions are socially just. All in all, it appears that deploying (more) police officers in NTE space–times is both the most effective and a socially just way of increasing experiences of safety among revellers. At the same time, given the ambiguity in the effects that surveillance and policing interventions generate, it may be inevitable that also the deployment of police officers on the ground will trigger some form of anxiety or fear of crime among a minority of NTE visitors.

On the whole, the findings raise a series of issues for the protagonists of Safe Nightlife Policies in the Netherlands (Van Liempt, 2014) and the securitisation of NTEs more generally. Rather than focusing on the one-dimensional question to what degree increased surveillance and policing will enhance safety among nightlife area visitors, policymakers and other stakeholders (the police, the nightlife industry) should also address questions of paradoxical effects, of social distribution – who may be disadvantaged by increased surveillance and policing and in what ways? – and of whether the purported positive effects are not cancelled out by the (unintended) negative effects that have been discussed here. Such questions are only reinforced if

the current findings are combined with results from earlier research with qualitative methods (Brands and Schwanen, 2014) that has suggested that situations of potential and actual threat appear to be relatively infrequently experienced by most consumers of city-centre nightlife.

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