

257 The concept and measurement of atmosphere as an attribute of the socio-physical environment related to the development of aggression

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Keywords: Aggression; atmosphere; socio-physical context

Abstract:

Introduction: Aggression is a behavior, which besides biological modifiers and personality characteristics is strongly influenced by socio-physical environment (Anderson, Deuser, & DeNeve, 1995).

Theoretical background: Because of the environmental and contextual influences the development of aggression is best understood through continuous cycle of interactions between people and environment (Goldstein, 1994). Most research on aggression to date, however, have predominantly studied aggression as behavior emerging from and within individuals, and influenced by contextual stimuli (e.g., the presence of aggressive symbols) rather than considering the socio-physical environment in a more holistic manner. (i.e., Donnerstein, Wilson, 1976; Geen, 1978; Bushman, Anderson, 2000).

Methods: We present two field studies investigating aggression in a naturalistic urban night life setting: Stratumseind in Eindhoven, The Netherlands. In our first field study we took an ecological and holistic perspective to investigate the role of the socio-physical environment in the development of aggression. Using different qualitative techniques (e.g. onsite, offsite interviews, observations) and multiple information sources (e.g., business representatives, police and visitors) we studied ongoing behavioral patterns of the crowd together with the changes in the socio-physical environment that co-occurred with the development of unwanted behaviors, including aggression. For this purpose, we refrained from targeting aggressive behavior by single individuals, but focused on changes in the crowd's behavior over time. In a second field study we aimed to quantify the dynamic changes in the atmosphere (the concept that was identified in the first study) by means of methods conventionally used in psychology and aggression research, including the Self-Assessment Manikin (Lang, 1980) for measuring crowds mood, and hostility bias tests (Anderson, Bushman 2002) to capture the aggressive tendencies, and structured observations to record changes in crowd behavior and in the state of the environment. Finally, we included police reports containing evaluations of the general atmosphere of a night to validate the included measures.

Results: In first study, atmosphere—a mood-like, but extra-individual state of the socio-physical environment—was identified as a real and tangible characteristic related to evolution of aggression. 'Real', because it affects the behavior of groups and individuals by emerging from and feeding into ongoing social interactions between people and the environment, and 'tangible' because it is sensed by individuals present on the street. Atmosphere consists of multiple components – crowd affect, behaviors (actions, interactions) and the state of the physical environment (e.g., litter, broken glass) at a given time. In the second study we learned that the use of surveys is by large ineffective for recording the affective component of atmosphere, however observations and expert evaluations of the atmosphere proved extremely insightful. After this quantitative field trial we revised atmosphere instruments and are, at the moment, preparing another field study to pursue the desing of the tool to measure atmosphere.

Conclusions: The concept of atmosphere is related the development of aggressive behavior. The atmosphere is a composite of crowd affect, behavior and physical environment. Thus, the instruments that are intended to measure the atmosphere have to capture these different components. So far not all the conventional methods proved to suit measuring atmosphere.

References:

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