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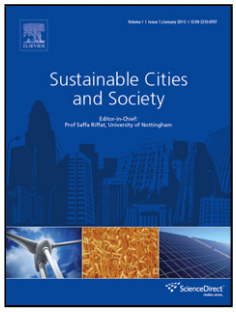

The combined effects of temperature and noise on the comfort perceptions of young people with a normal Body Mass Index

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The combined effects of temperature and noise on the comfort perceptions of young people with a normal Body Mass Index

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Highlights

- Experiments were conducted in a controlled chamber under conditions of cool conditions, neutral conditions, warm conditions and construction noise (55, 65, 75, 85dB).
- Subjects' thermal sensation vote (TSV), thermal comfort vote (TCV), acoustic comfort vote (ACV) and total annoyance sensation vote (TASV) were collected.
- Heart rate (HR) as a physiological change index was tested to explain the interaction between thermal environment and noise.
- The combined effects of temperature and noise on human perceptions were more significant in the warm environment.

Abstract：

This study aims to investigate the combined effects of temperature and noise on human perceptions. Eighteen subjects participated in the experiments， which contained three temperature conditions (20℃:RH50%, 25℃:RH50%, 30℃:RH50%.)