

Researcher

Chie Tsunoda, PhD

Sagami Woman's University, Faculty of Arts and Sciences, Department of Design Studies for Innovative Life, Professor



Profile

Dr. Tsunoda, a Bunka Fashion Collage graduate, brings her pattern-making expertise to designing safe and visible clothing. Her work includes highly reflective costumes and disaster-prevention garments. She promotes awareness through workshops and fashion shows, and her designs are used in regional traffic safety events.

Her research team, focused on "Fashion × Safety," investigating how pedestrians are seen by drivers, including clothing color surveys and visibility evaluation experiments using figures and actual vehicles. They share their findings to promote both safety and stylish fashion choices through their website and fashion shows.



Experiment on the visibility of clothing in an outdoor setting (luminance measurement)



Presentation of costumes at the 2023 Traffic Safety Fashion Show "CCC"

Traffic Safety Future Creation Lab

NISSAN
MOTOR CORPORATION

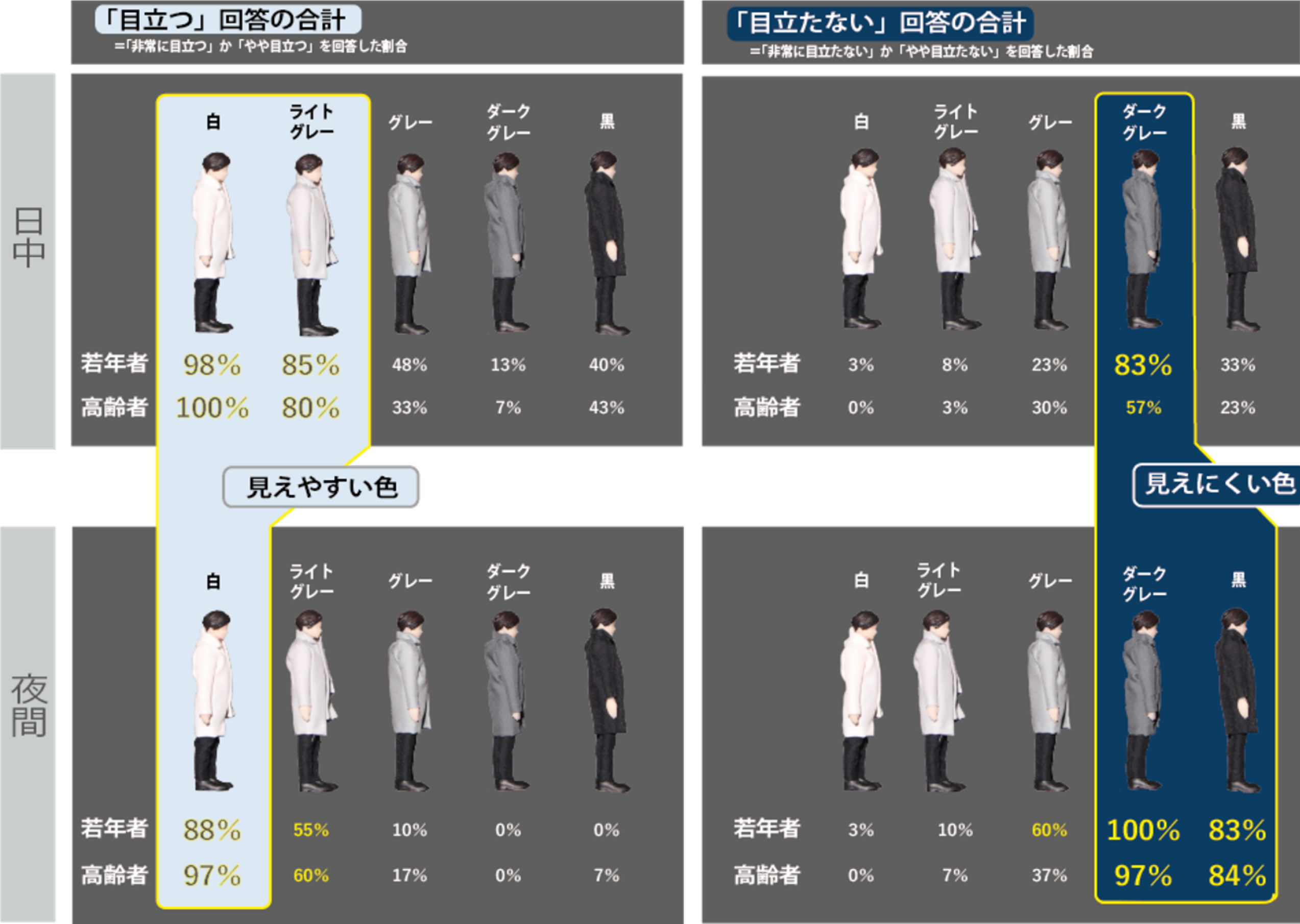
Clothes that stand out in the daytime may be less so at night.

A visibility evaluation experiment regarding the color of pedestrian clothing using figurines

Monotone clothings

Is it difficult for the driver to see certain colored clothing?

We surveyed young and old respondents to determine if the visibility of pedestrians wearing monotone clothing differs between day and night. The results show that white and light gray colors are most visible during the daytime and only white clothing is easily noticeable at night. Dark gray was the most difficult to see during both day and night with many respondents answering that black was also difficult to see at night.



POINT

It turns out that black and dark gray clothing, which has recently become popular among many people, is difficult for drivers to notice.

Clothes that stand out in the daytime may be less so at night.

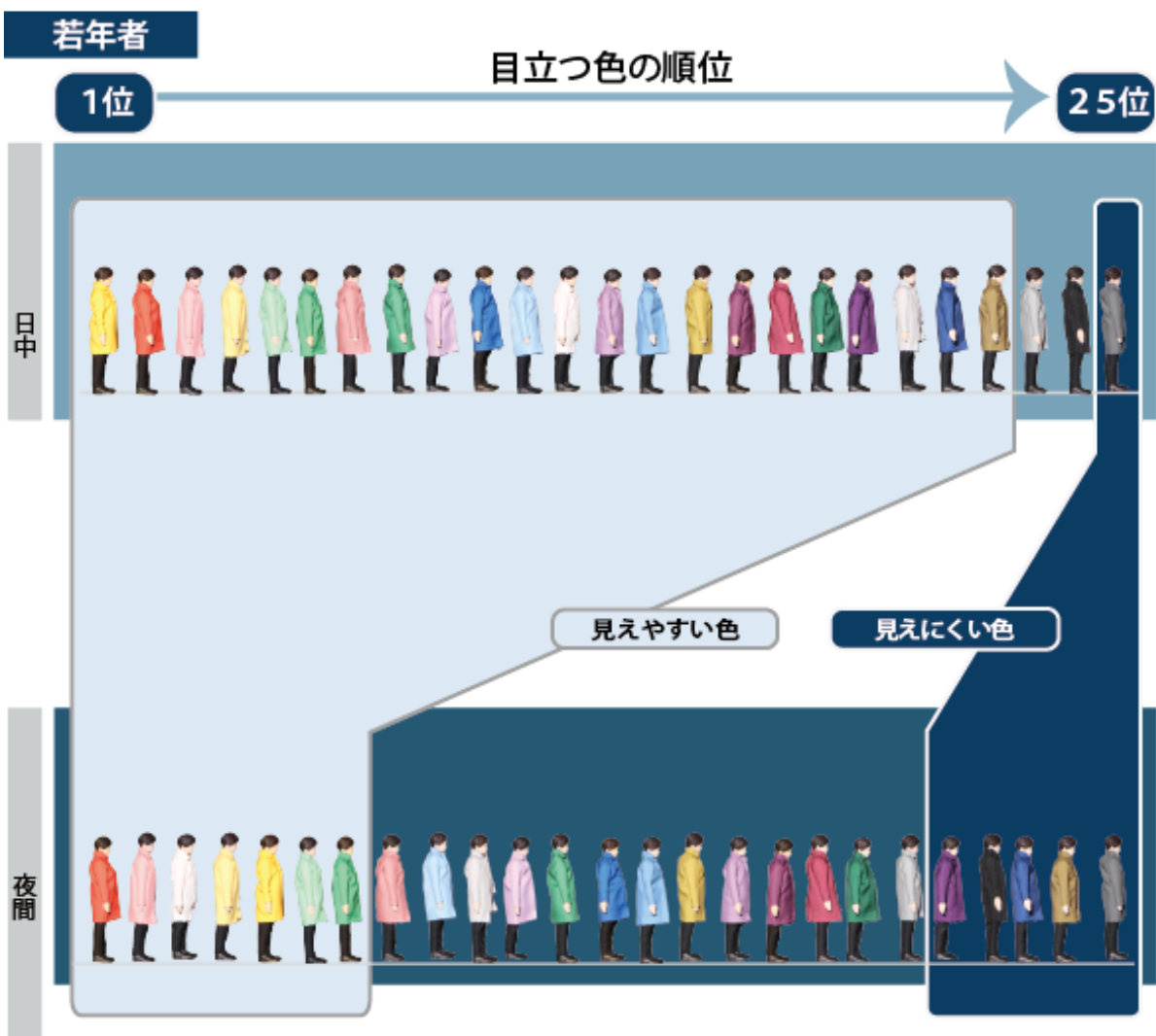
A visibility evaluation experiment regarding the color of pedestrian clothing using figurines

Colored clothing

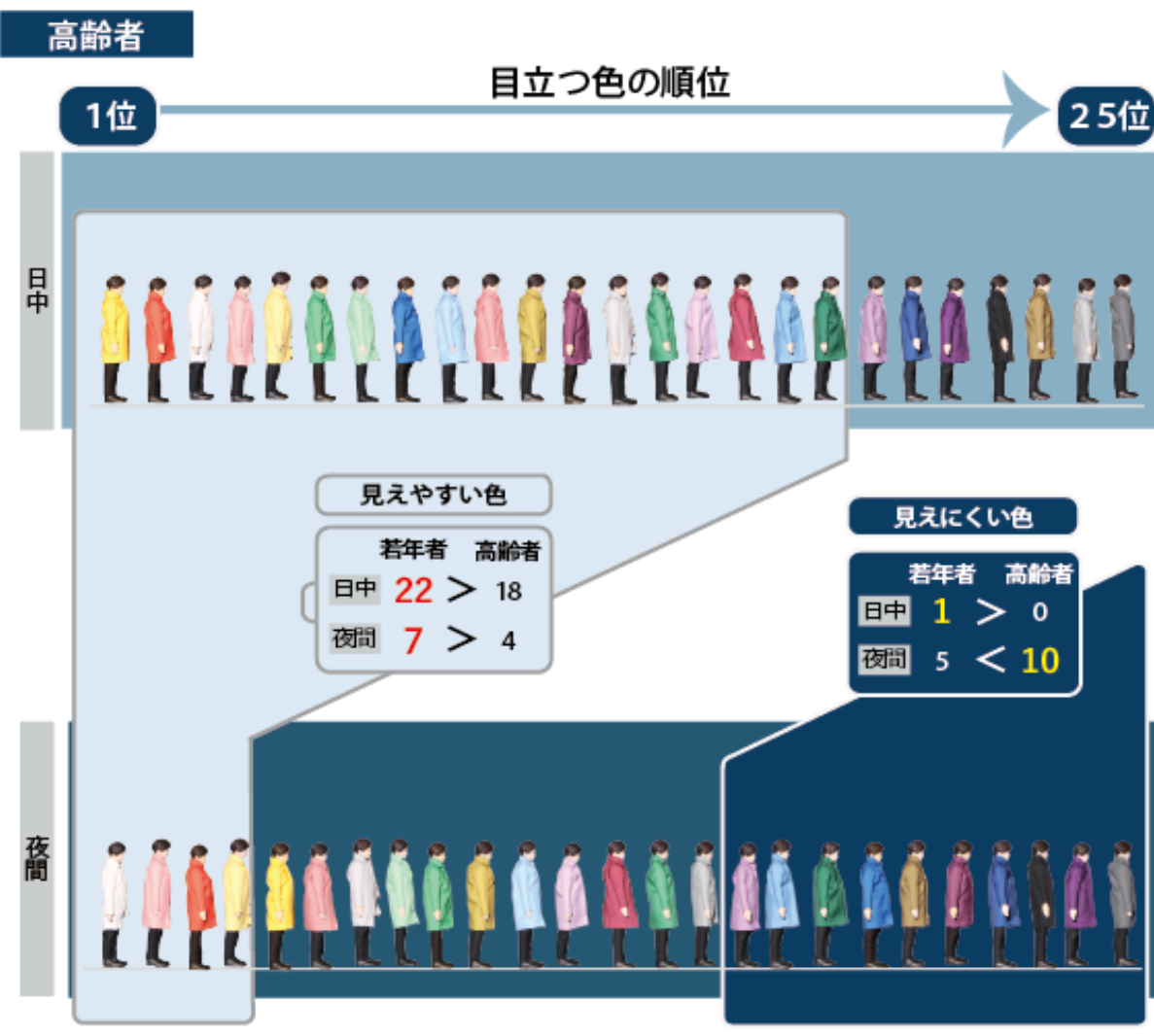
Color visibility changes between day and night

Our study found that pedestrian clothing color greatly impacts visibility for drivers. Bright colors are easiest to see during the day, while white and light colors are most visible at night. Dark colors pose the greatest visibility challenge, particularly for older drivers. The number of "hard to see" colors at night is twice as high for older drivers than younger drivers, suggesting that older drivers are less likely to notice pedestrians at night.

Young Drivers



Elderly Drivers



POINT

Adding colored items, whether monotone or colored, that are easily visible to drivers can make fashion more safety-conscious.



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Report by: Chie Tsunoda, Professor

Sagami Woman's University, Faculty of Arts and Sciences,
Department of Design Studies for Innovative Life

In collaboration with: Kitasato University and Ochanomizu University