

more misdetections in the case of the blue lights, especially in the case of females ($p = .04$). On the other hand, the amber rotary light produced more misidentifications, because participants confused it to a higher degree with the light of other special non-emergency vehicles ($p = .008$). We discuss the implications of the results obtained with regard to the proposed legal modification.

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From human motion capture to biological motion visualization: A new methodology

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Classical biological motion stimuli consisted of a small number of lights attached to the major joints of a moving person. Point-light walkers (PLW) contain all the information required for an efficient detection and recognition of dynamical biological beings. Several techniques have been proposed to create walking PLW, ranging from the early photographs or video recordings of markers attached to a human body to the more recent artificial synthesis algorithms and motion-capture based models. Almost all of these methods remove the common component of translation, which leads to the perception of a less natural PLW, as if walking on a treadmill. The present study proposes a methodology in which participants have 39 reflective markers placed in strategic anatomical locations, according to the Helen-Hayes protocol. Prior to the data collection, several anthropometric measures are taken. Using Vicon's motion capture system, the individual's gait is captured at various speeds. Afterwards, the number of markers is reduced in order to create a PLW, which usually has between 10-13 points. For this purpose, several different types of processes were used, such as the mean distance between two markers to define a single point. This method presents several advantages in comparison with other methods to create PLW: it is possible to maintain all the original components of the captured motion and/or manipulate each of these components, such as the common translation component or local components. All in all, perhaps one of the strongest advantages of this methodology is that when the PLW is presented, it is perceived as a more natural walking motion instead of a treadmill-like gait. Furthermore, this methodology allows us to go beyond the study of recognition of biological motion. Spatiotemporal processes can be analyzed in the presence of translational patterns in tasks involving velocity perception or collision estimations.

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Letter identification by switching between first- or second-order information using AM-PM visual chimaeras

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Two parallel visual mechanisms have been proposed for early spatial vision: a linear one devoted to processing luminance and the detection of fine-grain details (first-order

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