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Boots in summer vs sandals in winter? The dilemma that makes cancelling daylight saving time tricky.

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Dear Editors,

Recently Schernhammer et al.[1] sponsored permanent wintertime by finishing their short report saying that "the majority of the working population would likely benefit from the elimination of daylight saving time if maximizing an adequate morning stimulus is the primary goal". Authors arrived at that after analysing sunrise times in Europe through seasons. They ignored two critical tips that challenge their conclusion.

First, Central Europe is crossed by the 47th circle of latitude, where the sunrise ranges 03h45min from winter to summer.[2] This variability (see Fig 1b/1c or Fig 1a/1d in Ref.[1]) challenges the choice of a (clock designed) social start time aligned with sunrise. Schernhammer et al rightfully point out that an adequate morning stimulus is critically important for our wellbeing. However, an excessive delay between the sunrise and the start of the day also proved to trigger discomfort, ignited by the rule *duties first before pleasure*. Daylight-saving time helped solve this problem as Fig 1b/1d shows.

Second, 57% of the responders to the 2018 public consultation on summertime arrangements showed their preference for a permanent summertime arrangement should the changing be cancelled.[3] We agree that this choice would put many of these responders in jeopardy, due to the lack of morning light and, therefore, it may not sustain. Historical examples in Great Britain (1970s), Portugal (1990s), Chile (1995), Russia (2010s) are evidence of that. But we must point out that this population group is showing a preference for their current summer schedules. The permanent wintertime (preferred by 32% of the responders only) would forcibly delay them by one hour during the summer season. Which benefit would the first group possibly find? We suggest they would find little benefit. Historical evidence also comes handy: permanent wintertime ceased to be a choice in

Great Britain, Ireland, and Portugal more than 100 years ago; in Italy and Malta, 60 years ago; elsewhere in Europe, 45 years ago. The long sustainability of the practice is evidence of it working properly, benefiting scores of populations.[4]

Schernhammer et al point out that the seasonal clock changing has potential [short term] negative health effects, an issue that kicked off the current wave against the practice amongst decision makers. On the contrary, we always highlight a long-term potential health outcome: the practice has helped to maximize an adequate morning stimulus during the winter, in line with authors point of view.[5] By advancing human activity in summer only, the seasonal clock regulations prevented human activity from advancing its phase in winter.

Schernhammer et al make use of a children's counting-out rhyme to entitle their study. We end this letter response with a day-to-day analogy that shows why cancelling daylight saving is tricky. At the intermediate range of latitudes, many find little benefit in wearing sandals year-round. Likewise, many find little benefit in wearing boots year-round. Many practice seasonal wardrobe changing and adapt their wearing to seasons. They make a rational use of boots in winter and sandals in summer.

Declarations

The authors declare no competing interest. This work followed standard ethical rules.

Both authors contributed equally to this letter.

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