The non-linear development of antisocial lie-telling: The role of sensitivity to punishment

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Background

High rates of antisocial lie-telling (i.e., lies told to protect the self from punishment) has been linked to problem behaviors. [1, 2, 3]

Research suggests that rates of antisocial lie-telling 'peak' during adolescence. [4, 5]

However, these studies typically categorize age into discrete groups (e.g., adolescents compared to adults) or treat age as a linear variable, which limits the ability to assess non-linear trends (i.e., peaks).

Further, it is possible that antisocial lies peak in adolescence because of heightened punishment sensitivity in this life stage.[6, 7]

Thus, the current study examined the non-linear relationship between antisocial lie-telling and sensitivity to punishment.

Methods

Participants. *N* = 228, 13-59 years old (M_{age} = 26.54, *SD* = 13.29, 67% female).

Procedure. Participants attended a live orientation session, then completed 7 days of experience sampling questionnaires about their lie-telling, and a closing session where sensitivity to punishment was measured.

Measures.

Antisocial Lie-telling. A sum of the number of self-reported antisocial lies (e.g., protecting the self psychologically, financially, or physically) told across a 7-day period.

Sensitivity to Punishment. Measured using Carver and White's (1994) Behavioral Inhibition Scale (e.g., "Criticism or scolding hurts me quite a bit").[8]

Analyses

We used **generalized additive modelling (GAM)** to characterize a non-linear relationship between antisocial lie-telling and sensitivity to punishment.

This is a data-driven approach that relies on splines, which, unlike linear models, are not restricted to identifying a slope that has a constant rate of change.

Antisocial lie-telling **decreases** with age.

Sensitivity to punishment predicted **increased** antisocial lie-telling across age.

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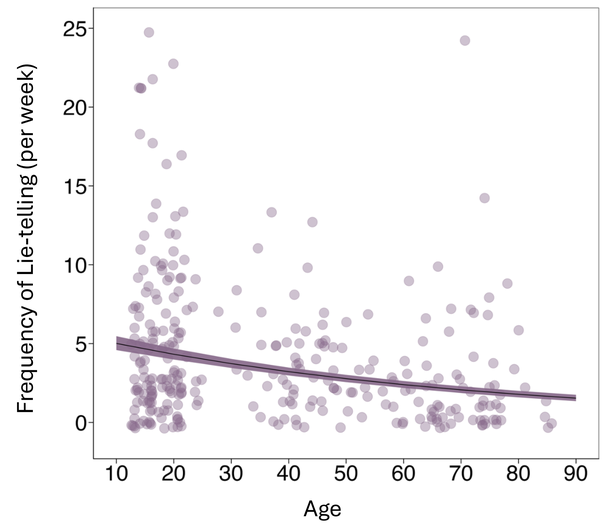
Results

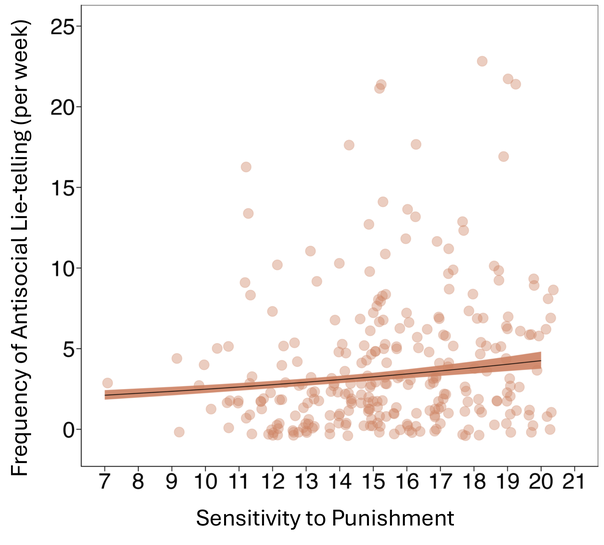
Age-related Trend. Young adolescents had the highest rates of antisocial lie-telling, after which there was an accelerated decline into adulthood (χ^2 = 25.53, *edf* = 1.00, $p < .001$).

Age-related Differences in Antisocial Lie-telling



Sensitivity to Punishment. Higher sensitivity to punishment predicted higher rates of antisocial lie-telling (χ^2 = 4.22, *edf* = 1.00, p = .04), though the interaction between age and sensitivity to punishment was not significant (χ^2 = 0.62, *edf* = 1.45, p = .729).

Sensitivity to Punishment Differences in Antisocial Lie-telling



Conclusions

Antisocial lie-telling is highest during **adolescence** and declines into adulthood.

Our study's innovative use of **GAM** provides a refined understanding of how lie-telling behaviors evolve with age and the importance of considering non-linear age-related changes in antisocial lie-telling.

Sensitivity to punishment may be an important marker for identifying who may be most likely to tell antisocial lies and a potential mechanism to target for honesty promotion interventions.