

Family Dependent Trends in Aggression

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BACKGROUND

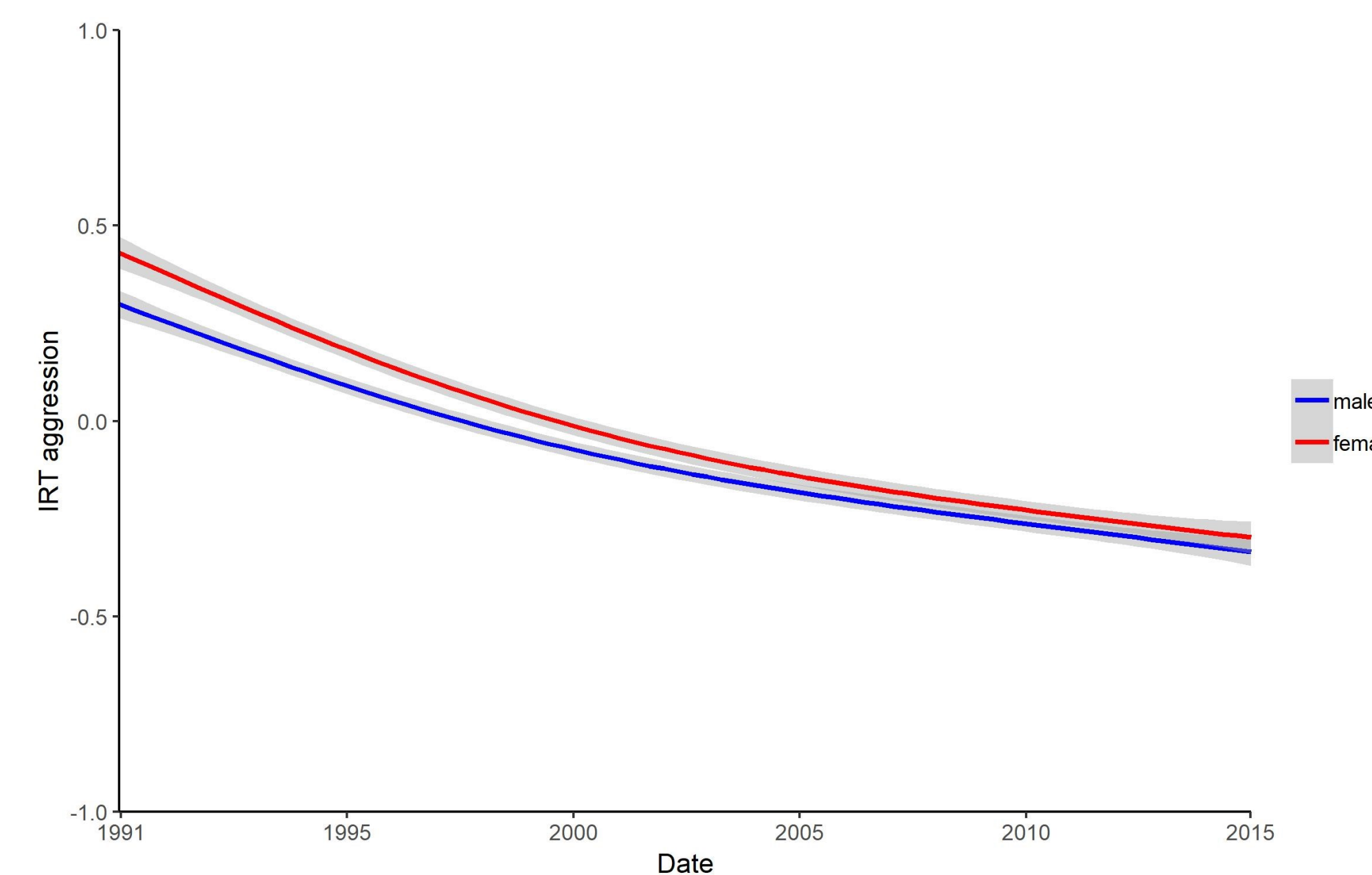
- Unwarranted aggressive behavior is, historically and currently, a major and possibly permanent problem for society.
- Historical changes in homicide rates and violent crime are relatively well documented. Statistics on other, less overt forms of aggression are lacking.
- Historical changes in behavior can take place for three different reasons: Period effects, Cohort effects, and Age effects.
- Has aggressive behavior ramped up or dialed down in the Dutch population between 1991 and 2015? To what extent does this trend apply to all families within the population?

METHOD

- Sample: 69,470 observations from 40,405 participants, from 15,434 families in the Netherlands Twin Registry.
- Measure: aggressive behavior subscale from the ASEBA youth, and adult self-report questionnaires (scores were calculated using IRT).
- Main analysis: three-level mixed-effects model.
Fixed:
 - Linear & non-linear effects of age & date.
 - Linear effect of genderRandom:
 - Varying intercept for individuals & families
 - Varying effects of age and date for families

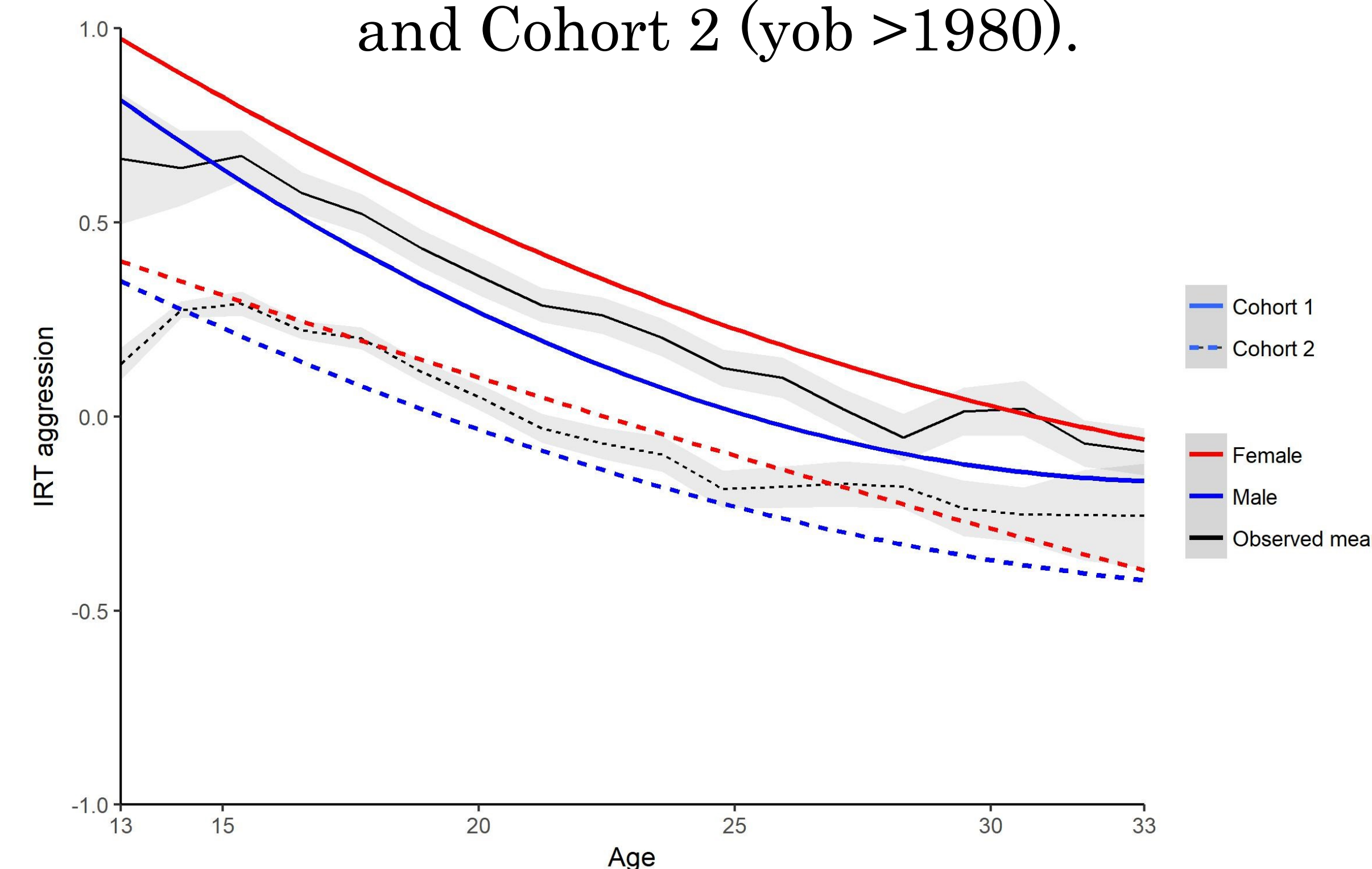
RESULTS

Figure 1. Predicted IRT aggression from 1991 to 2015.



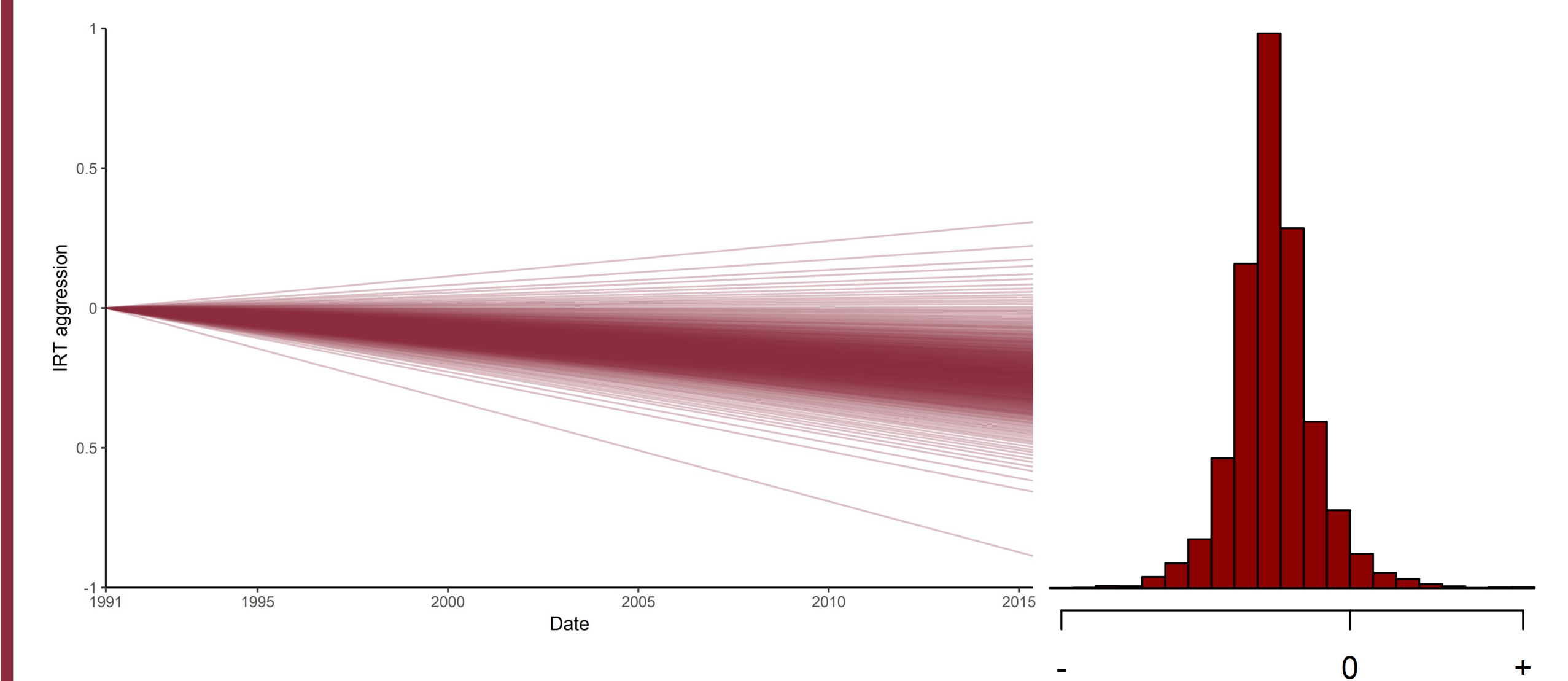
We found a decrease in average aggression scores when taking into account the age of the respondents.

Figure 2. Predicted IRT aggression for Cohort 1 (yob < 1980) and Cohort 2 (yob > 1980).



Secondary analysis in a subsample of 13 to 33 year-olds shows that Cohort 1, born before 1980, scores higher on average across all ages compared to Cohort 2, born after 1980. This illustrates that the decrease in aggression scores over time are not due to age effects.

Figure 3. Family varying slopes for date.



We found that the slope for date differs between families. The estimated random slopes did not seem to be related to the estimated random intercepts.

DISCUSSION

- On average, aggression scores have gone down from 1991 to 2015.
- The random slope for date suggests that adherence to the downward trend is dependent on the family you are part of.
 - *Does this mean that families respond differently to changes in society?
 - *Or that changes in society are not equal across families?
- The estimate for the random slope of date is not related to the random intercept. This suggests that starting levels of aggression are not indicative for the development over time.