

THE CULTURAL EVOLUTION OF MODERNITY

Lesley Newson

(lesleynewson@gmail.com)



“Modernization”

- Many inter-related cultural changes
- **Continuing** cultural change
- Pattern of cultural change is not identical but strangely similar in all modernizing populations
- Most people got bored with discussing it several decades ago



Can thinking like a biologist reveal new patterns in the complexity and help explain the course of cultural change?

Plan

1. The most important cultural change of modernization
2. Inheritance and identity
3. Another lesson from biological evolution.
4. Becoming more and more modern.
5. A natural experiment – the Amish

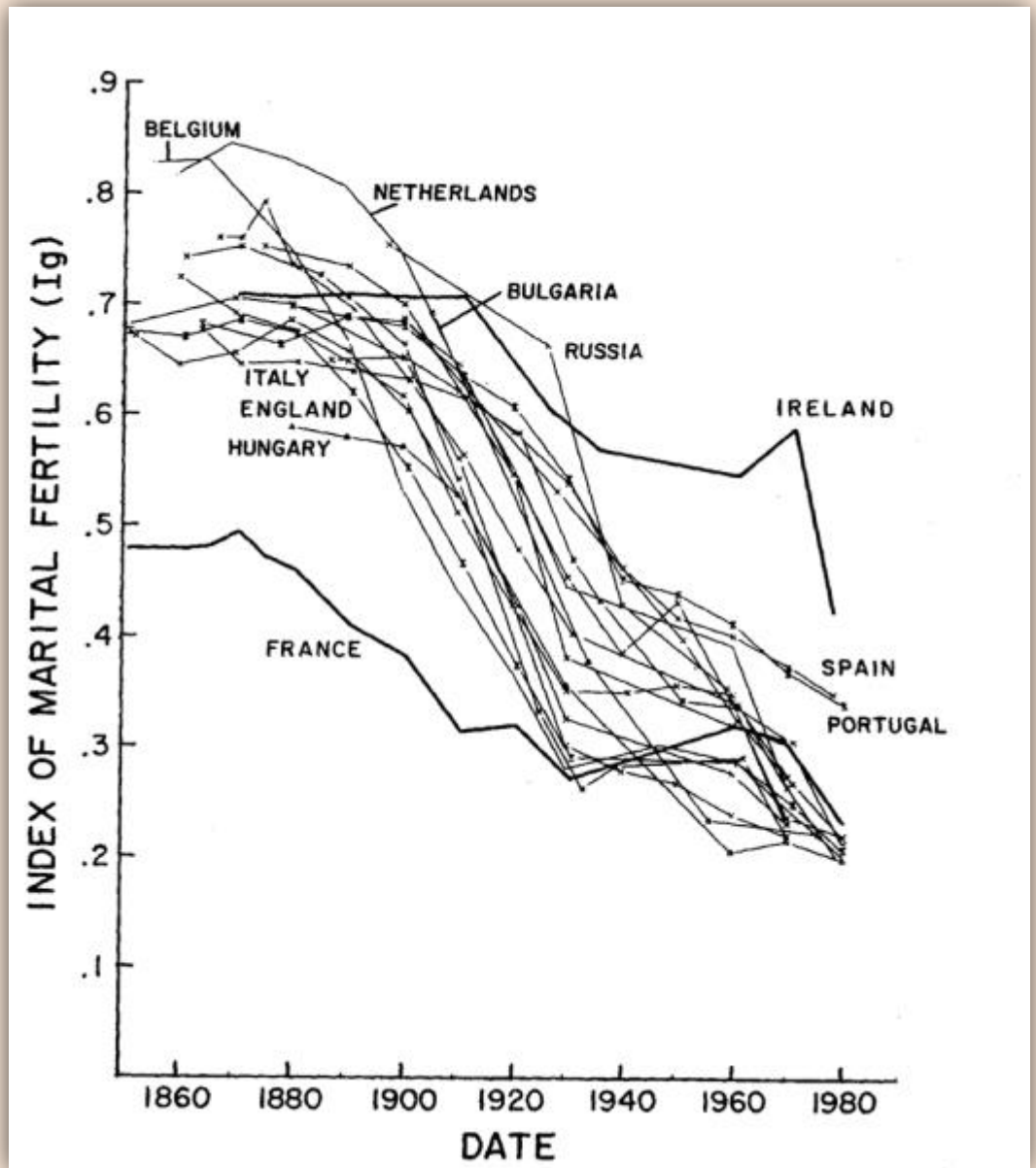
The key change

A sudden dramatic fall in the fertility of married women in Europe.

Long term effects:

Economic – It changed the age pyramid and dependency ratio

Social – Less demand for childcare labour and less respect for parenthood



From:

Coale, A. & Watkins, S. C. (1986).

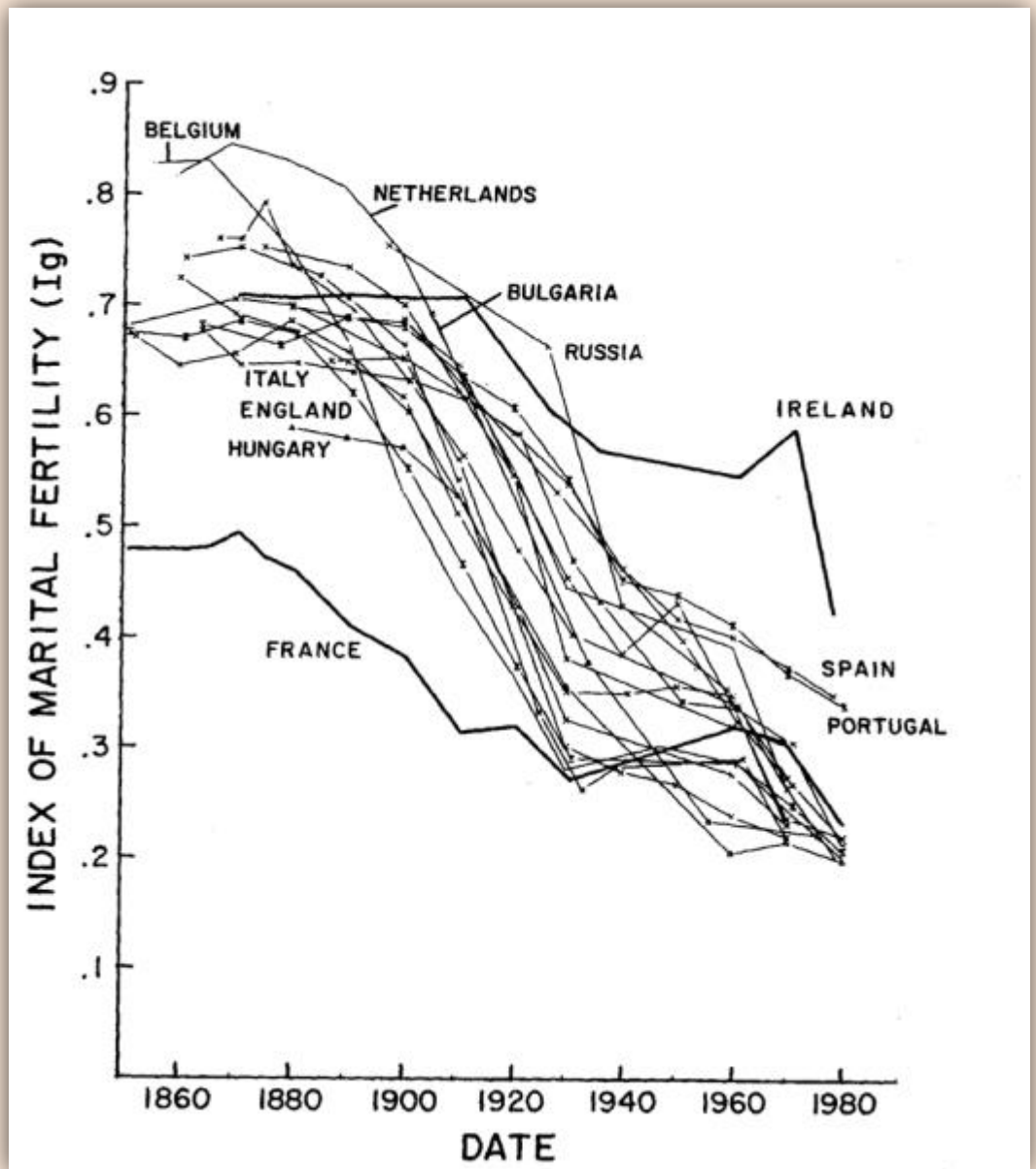
The Decline of Fertility in Europe Princeton University Press: Princeton, New Jersey.

A key change

A sudden dramatic fall in the fertility of married women in Europe.

From a biological perspective this was a ***crazy change***

The decline in fertility happened during a time when it was ***becoming easier*** to raise a large family



From:

Coale, A. & Watkins, S. C. (1986).

The Decline of Fertility in Europe Princeton University Press: Princeton, New Jersey.

Biologists expect living things to ...

... expend effort to efficiently convert resources into offspring

- Competition for “fitness”
- Natural selection favours the most efficient strategies





By and large, this was true of humans too.



Animals maximize their fitness by adjusting their rate of reproduction to the availability of resources.



Late start

Three ways to regulate rate of reproduction.

In humans, cultural mechanisms augment the biological ones.



Early end



Wide spacing

Maximum fitness is achieved by adjusting rate of reproduction to the availability of resources.

Some cultures regulate rate of reproduction by regulating marriage.



Hindu
no remarriage of widows



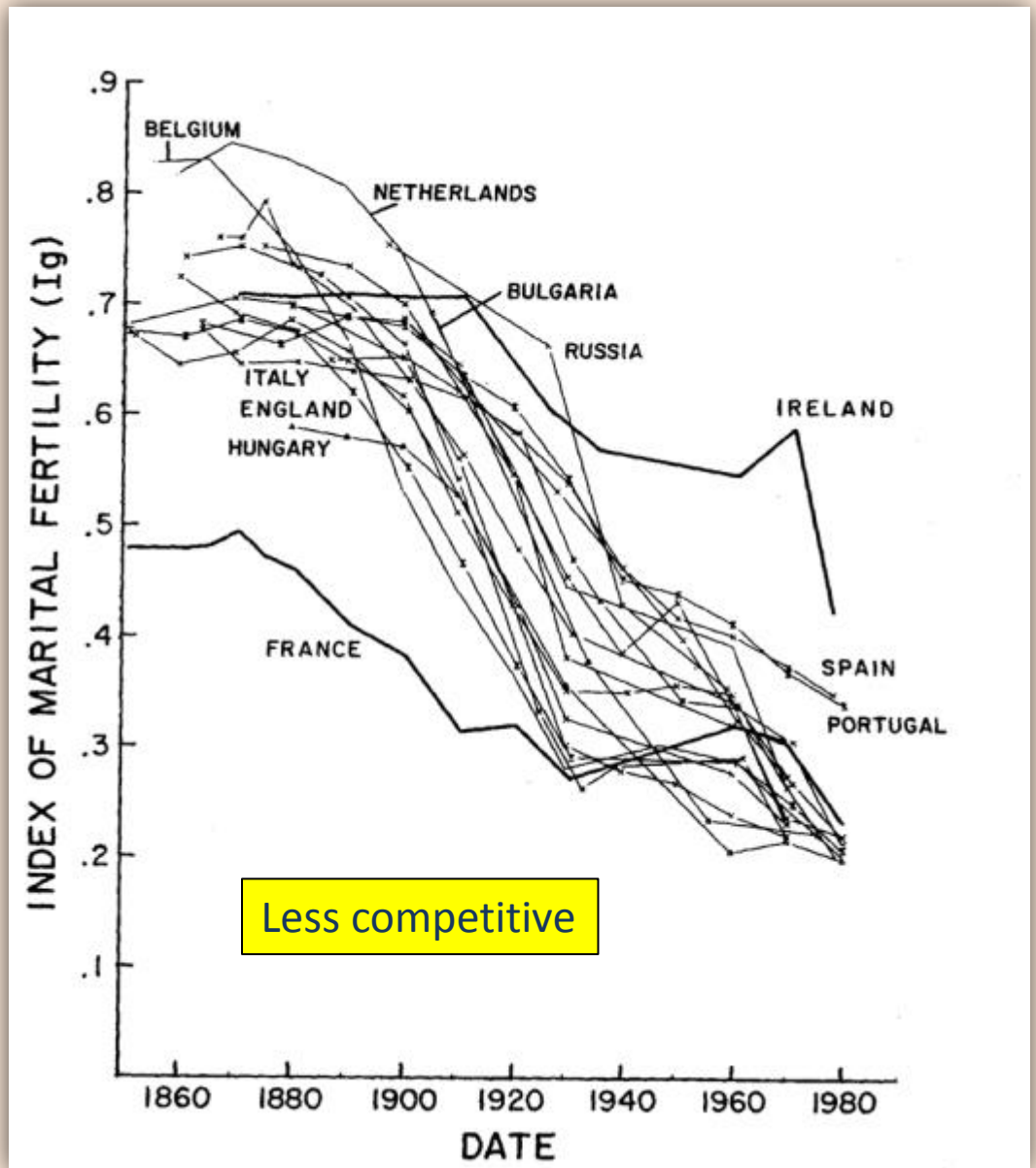
Northern Europe
monogamy
separate households

A key change

A sudden dramatic fall in the fertility of married women in Europe.

From a biological perspective this is a ***crazy change***

The decline in fertility happened during a time when it was ***becoming easier*** to raise a large family

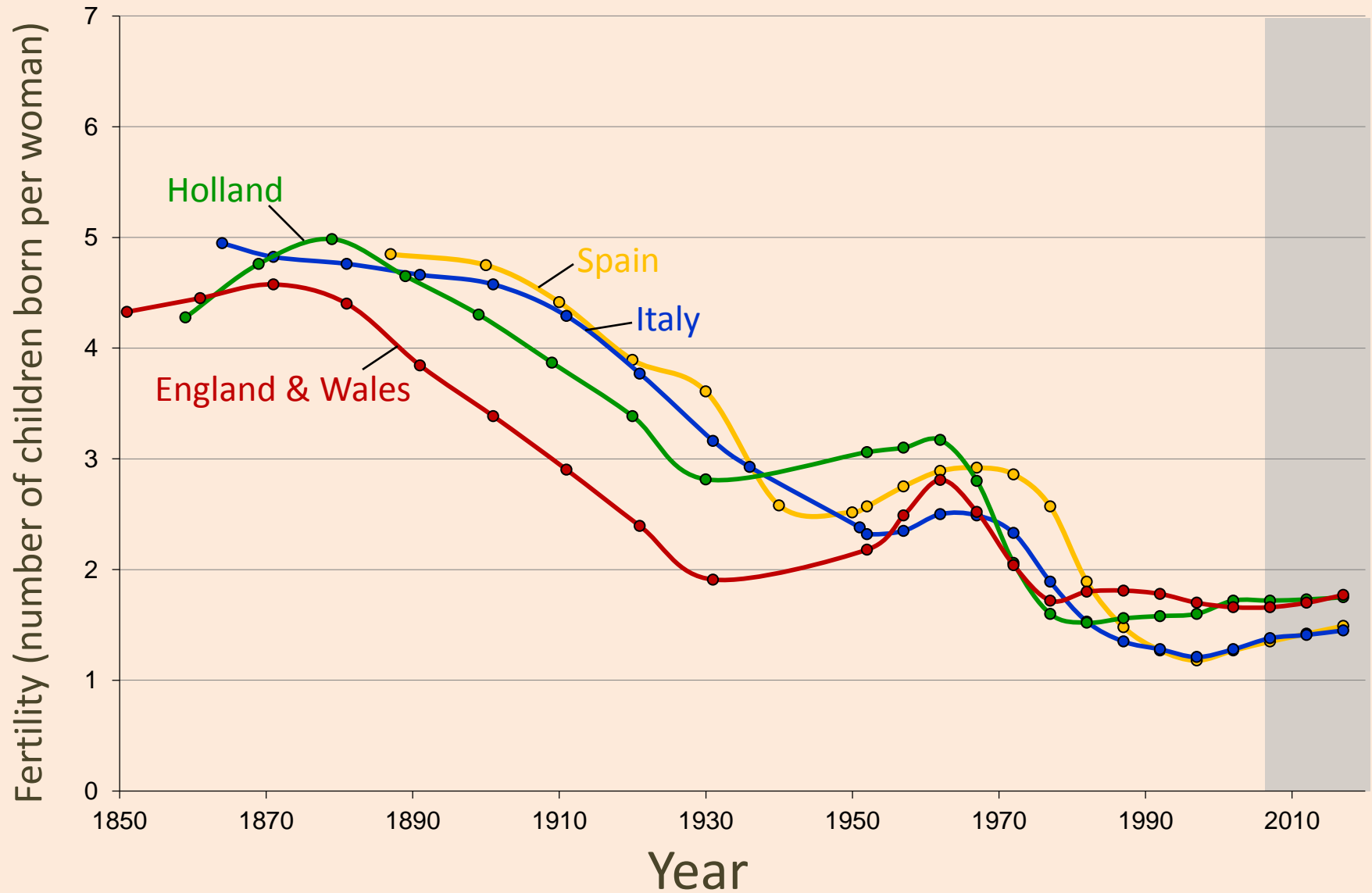


From:

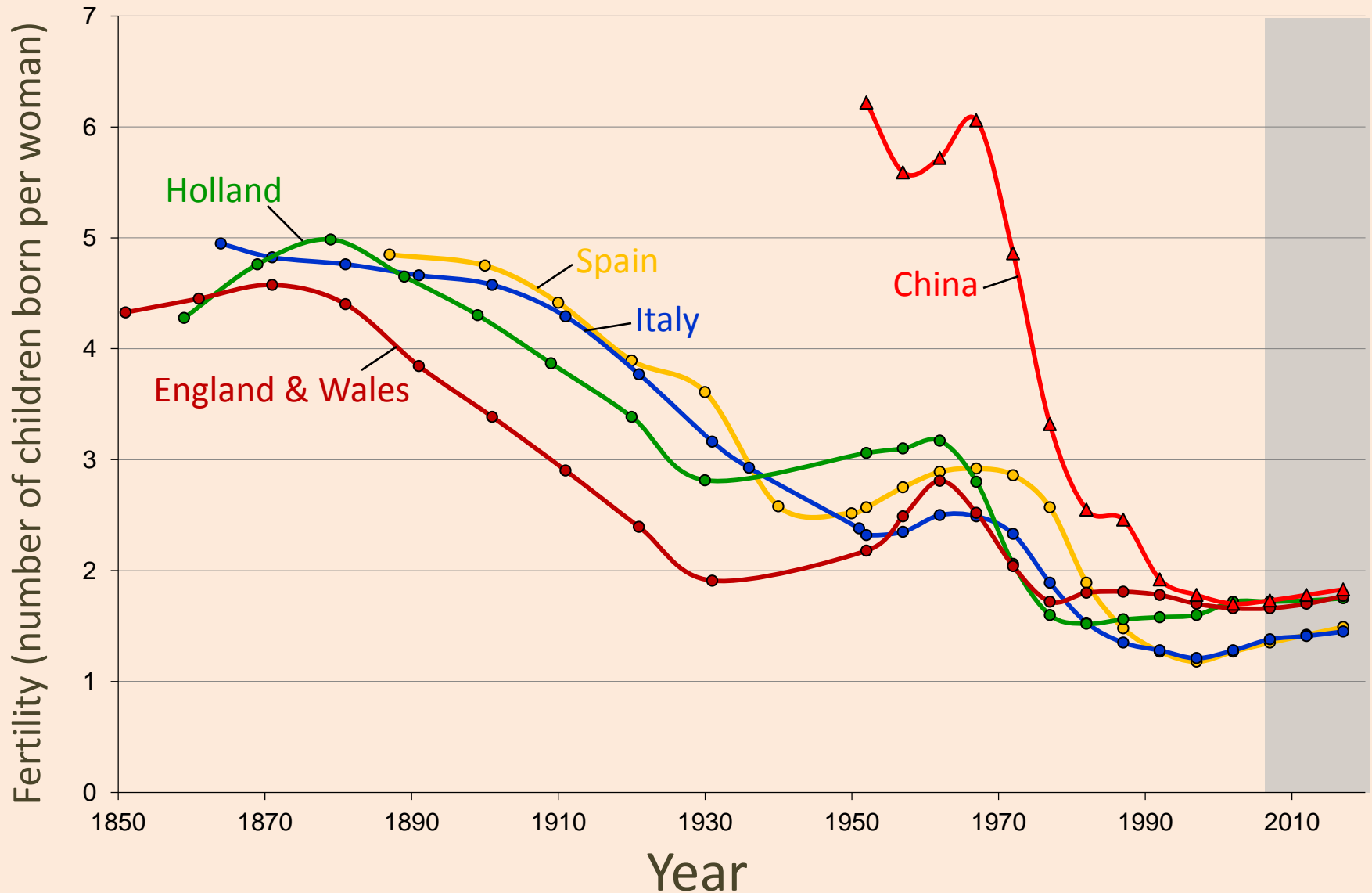
Coale, A. & Watkins, S. C. (1986).

The Decline of Fertility in Europe Princeton University Press: Princeton, New Jersey.

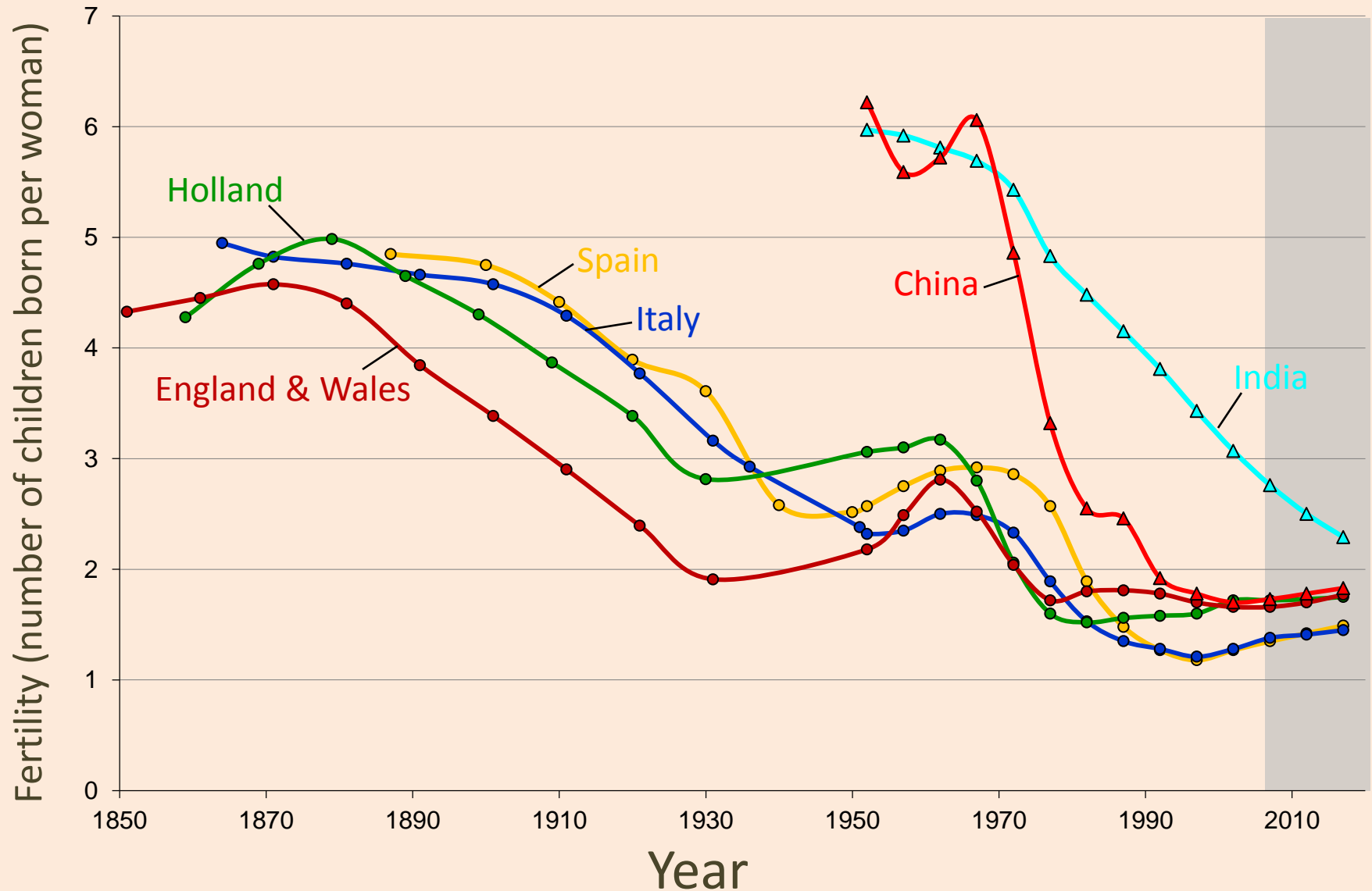
Decline in total fertility rate



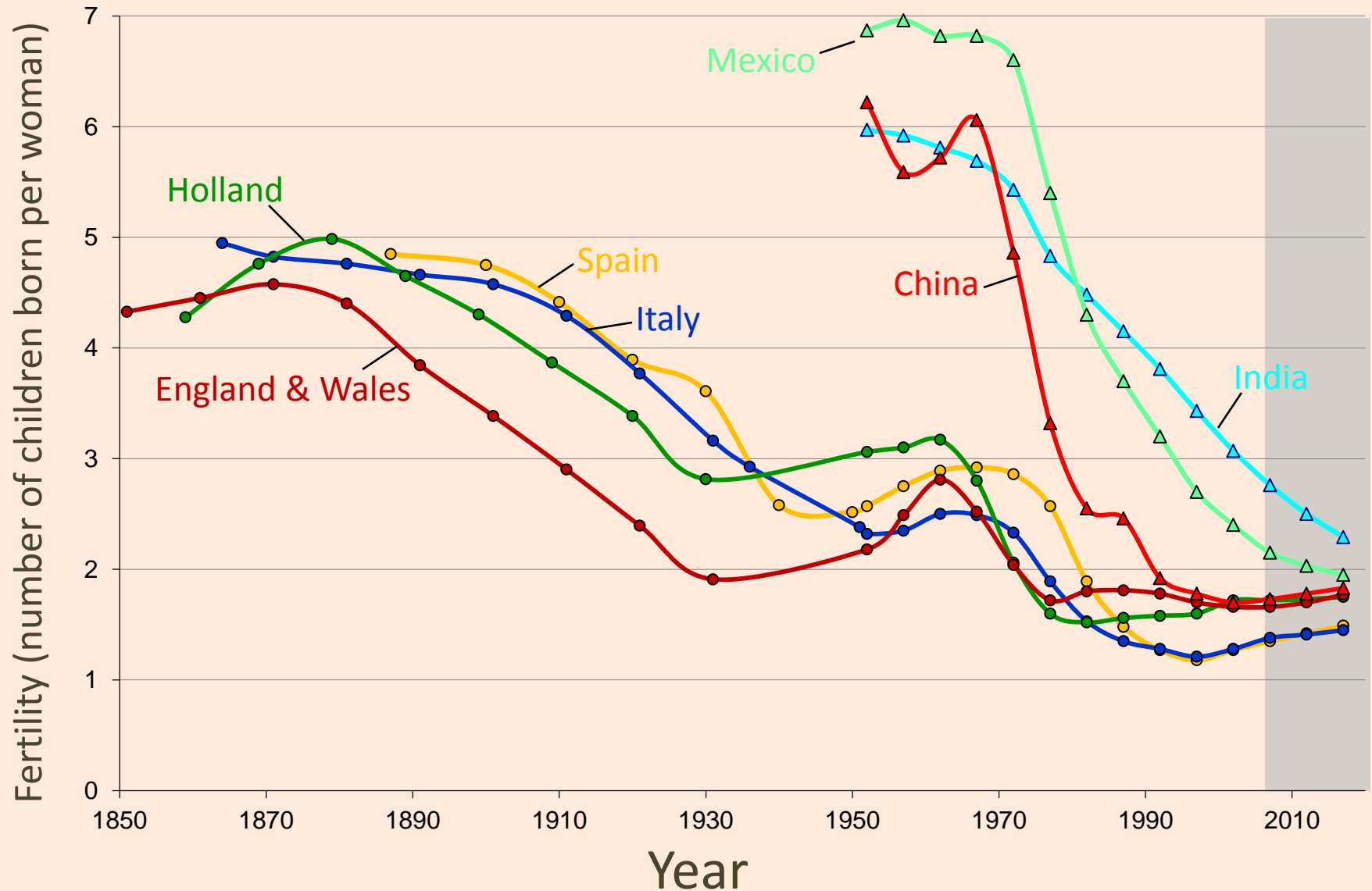
Some more recent declines have been sharper



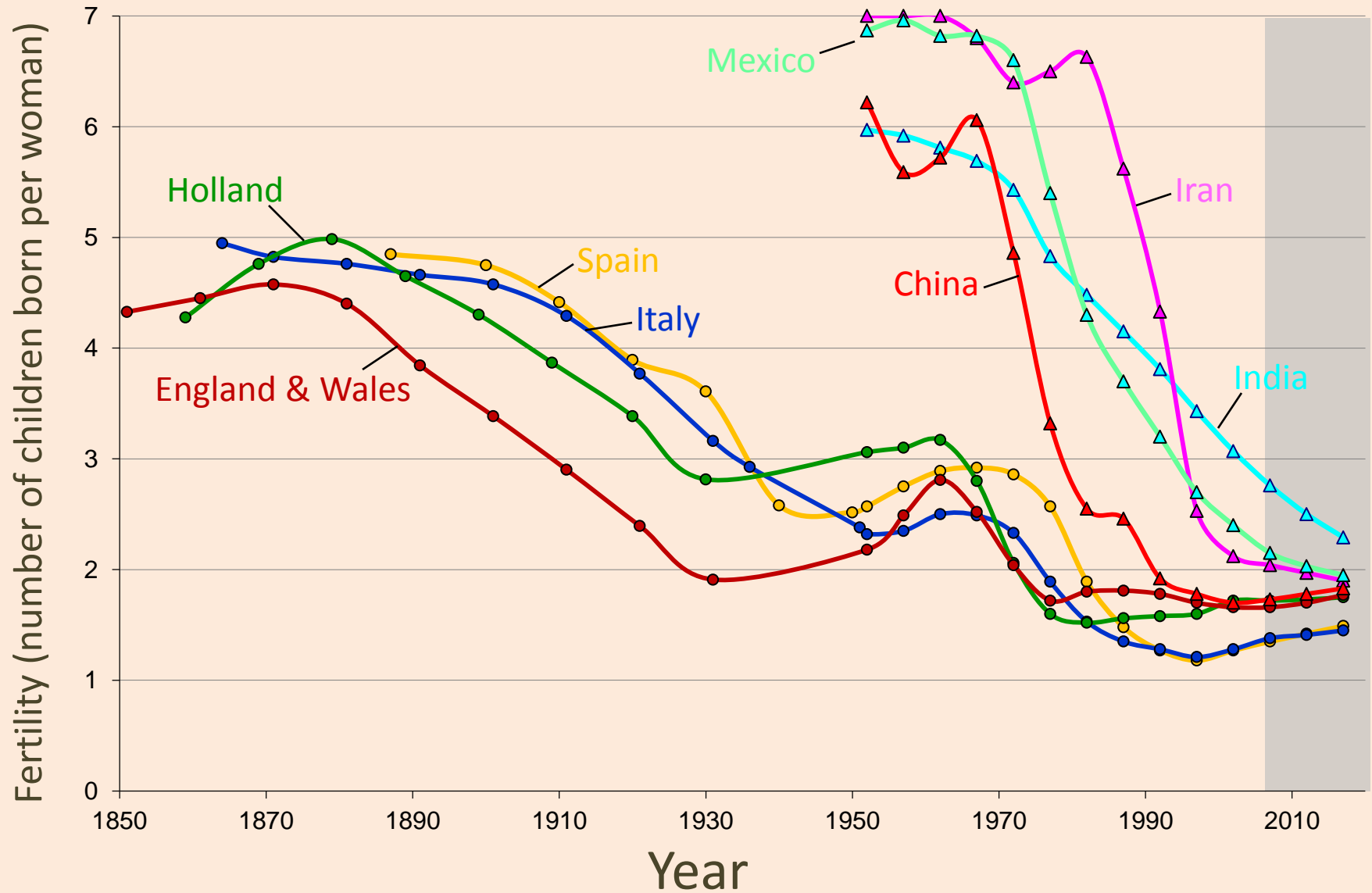
Some more recent declines have been sharper



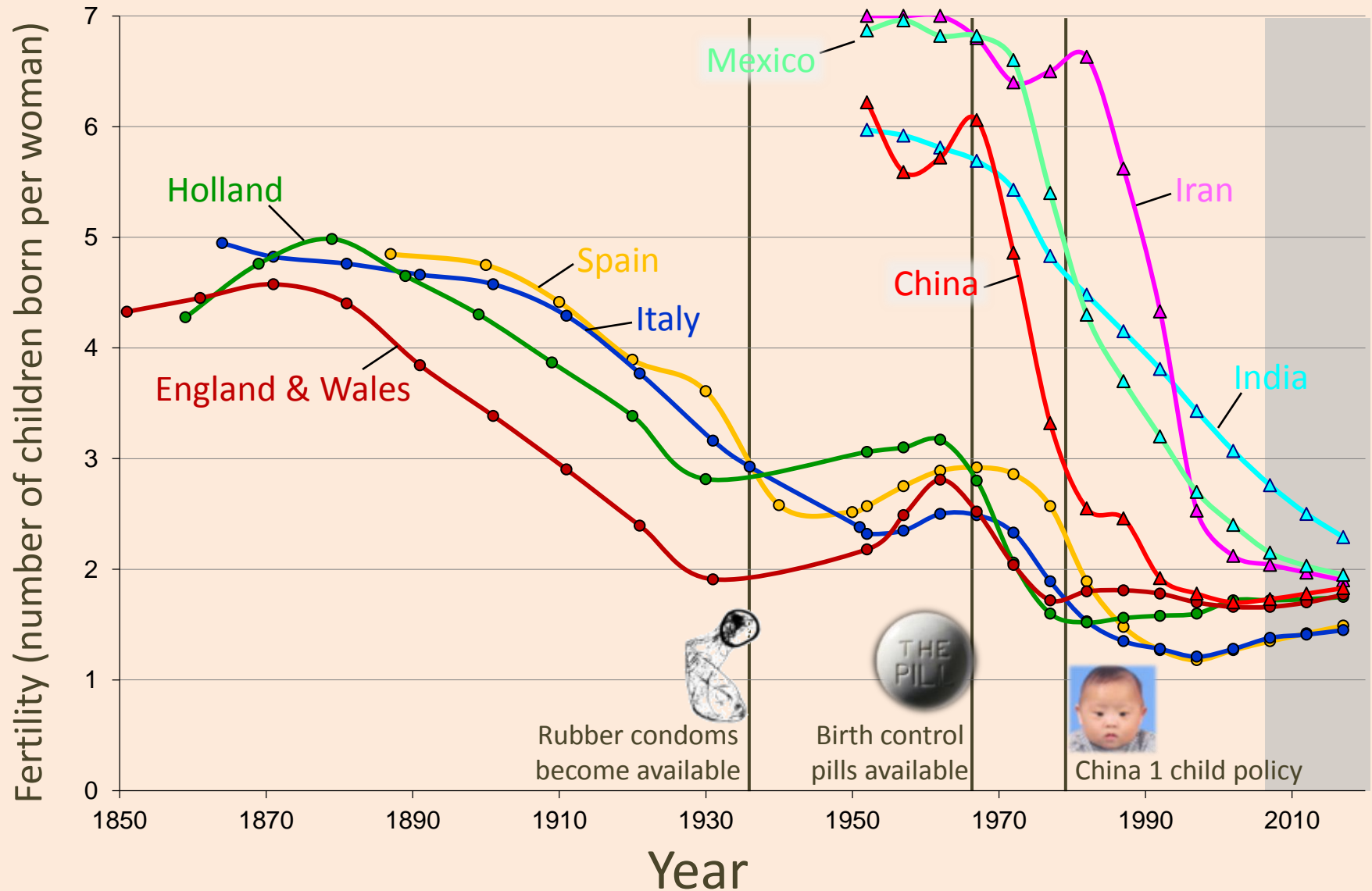
Some more recent declines have been sharper



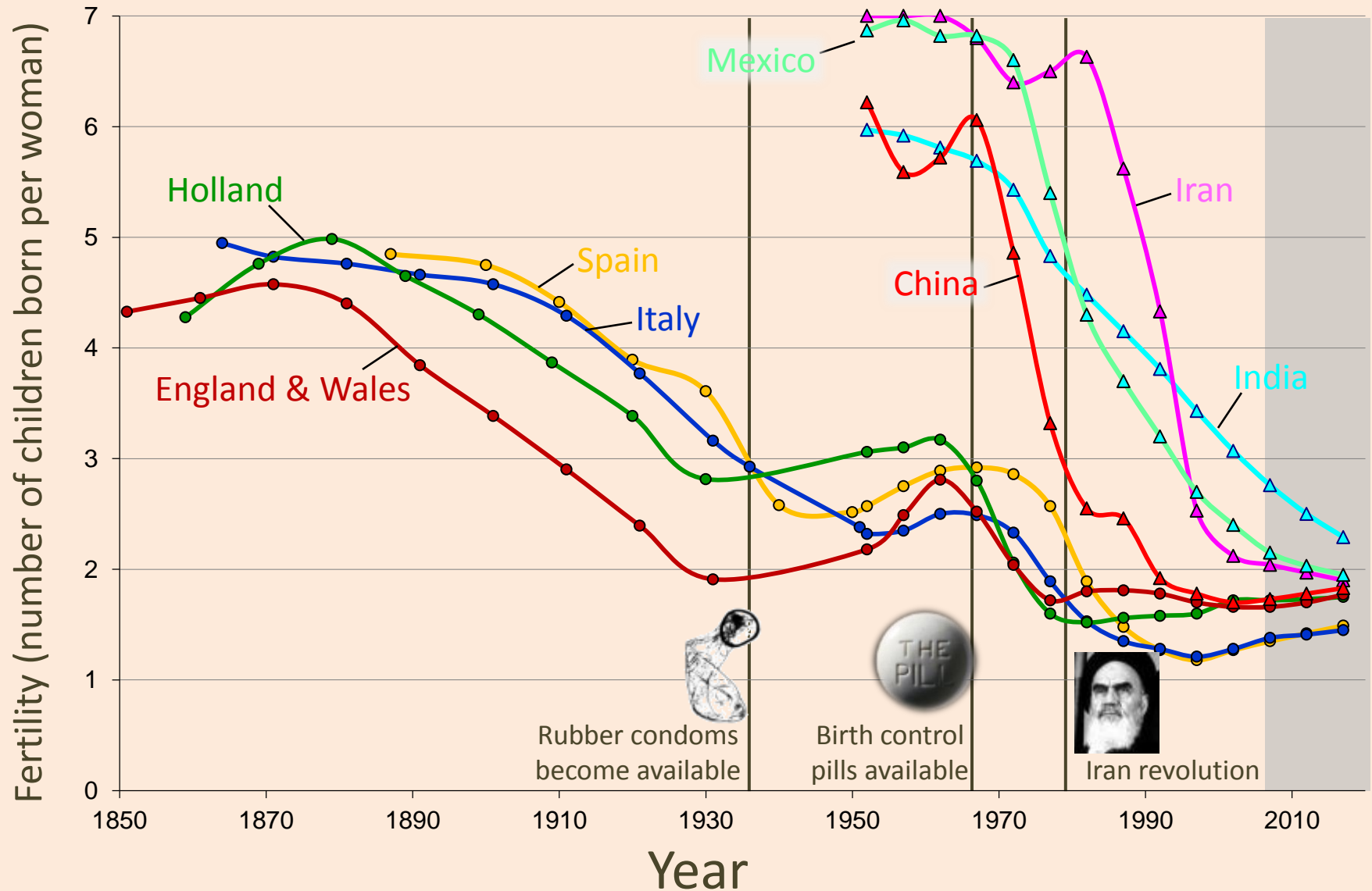
Some more recent declines have been sharper



Popular “explanations” are unsupported



Popular “explanations” are unsupported



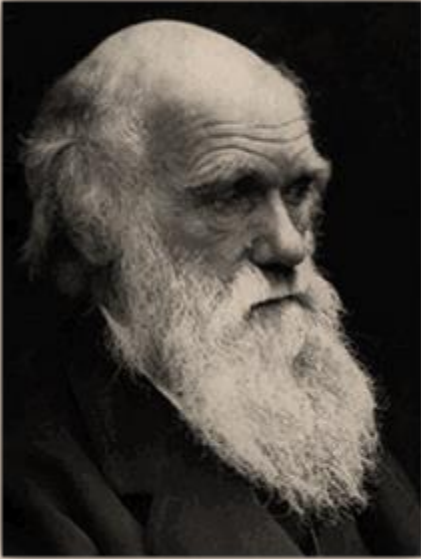
Conclusion:

A early and key change in the cultural evolution of modernity is humans mysteriously abandoning competition for biological fitness.

Plan

1. The most important cultural change of modernization
2. Inheritance and identity
3. Another lesson from biological evolution.
4. Becoming more and more modern.
5. A natural experiment – the Amish

Inheritance

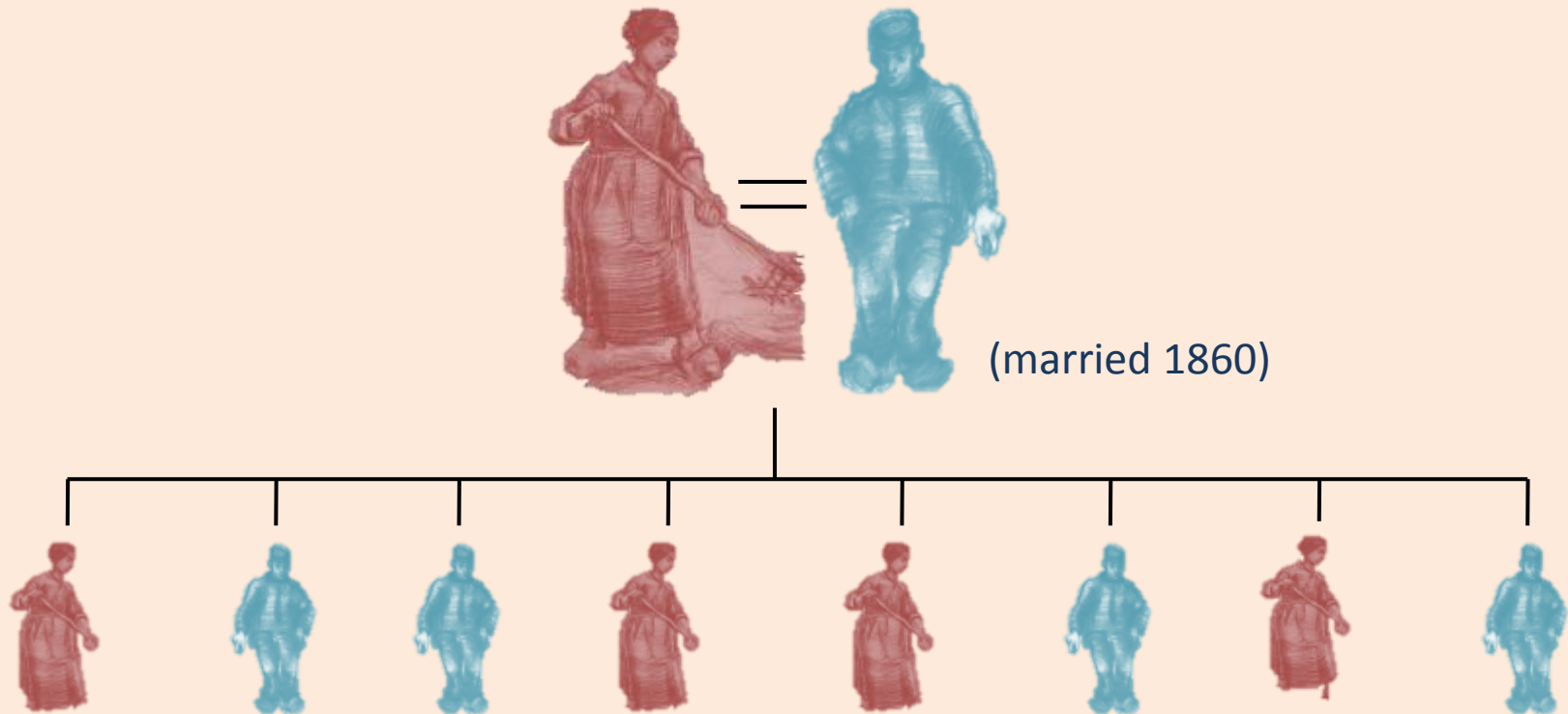


Darwin's theory explains why living things behave as if they are trying to maximize their "fitness".

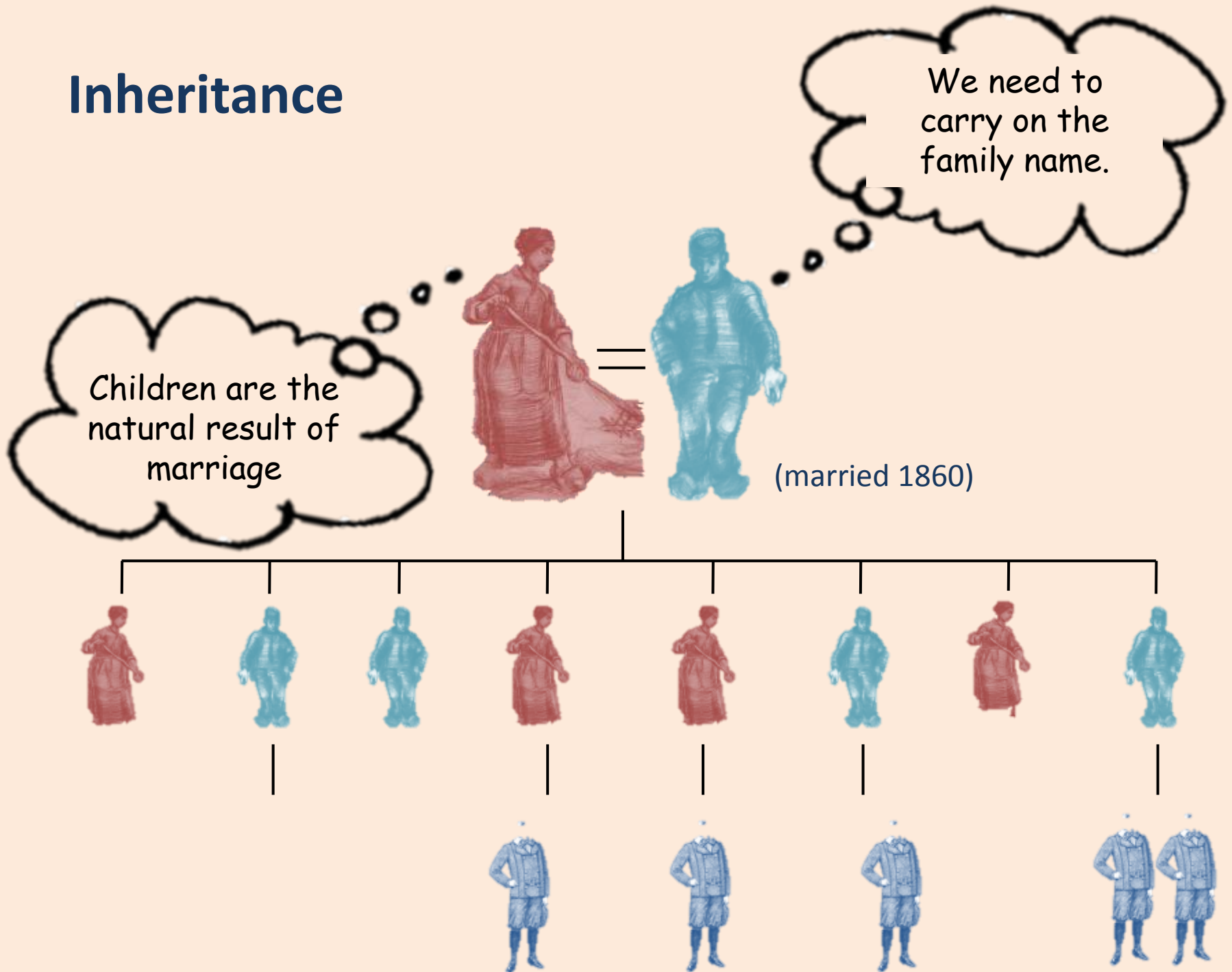


- Offspring tend to be similar to their parents
 - they inherit their parents' characteristics.
- Everything alive today is descended from a very long line of ancestors who succeeded in raising offspring that survived.
- Therefore, all living things have inherited characteristics associated with producing and raising offspring – many offspring.

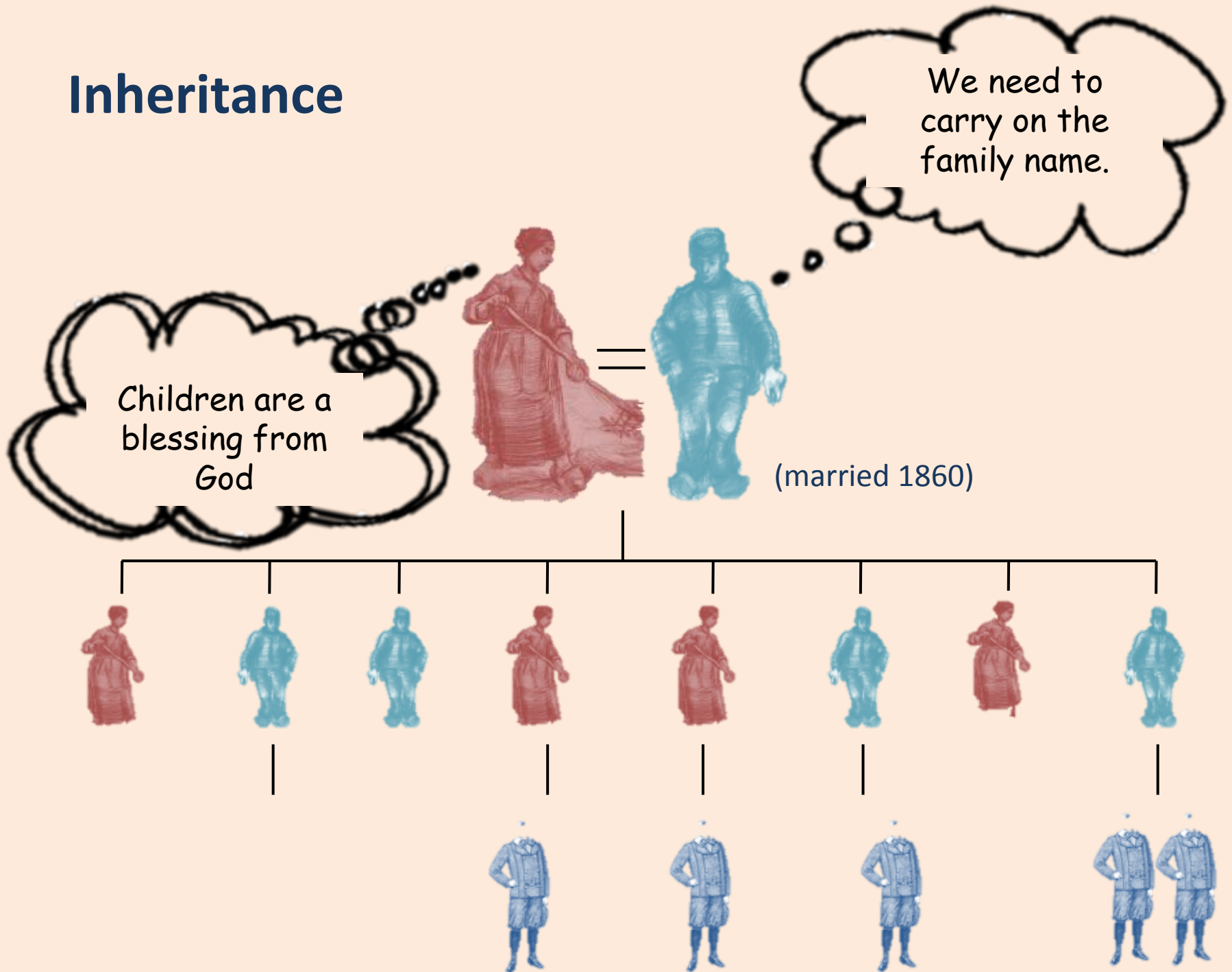
Inheritance



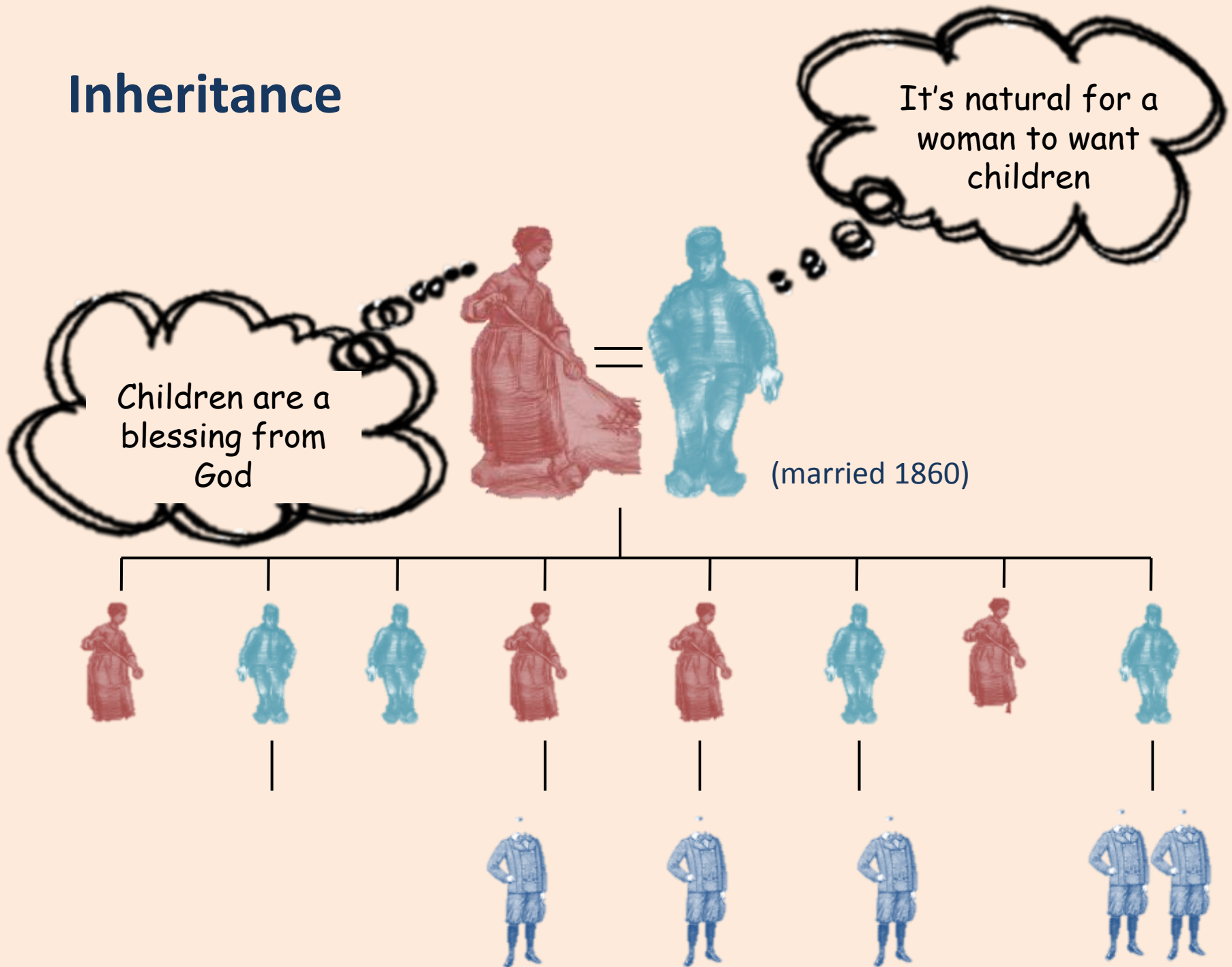
Inheritance



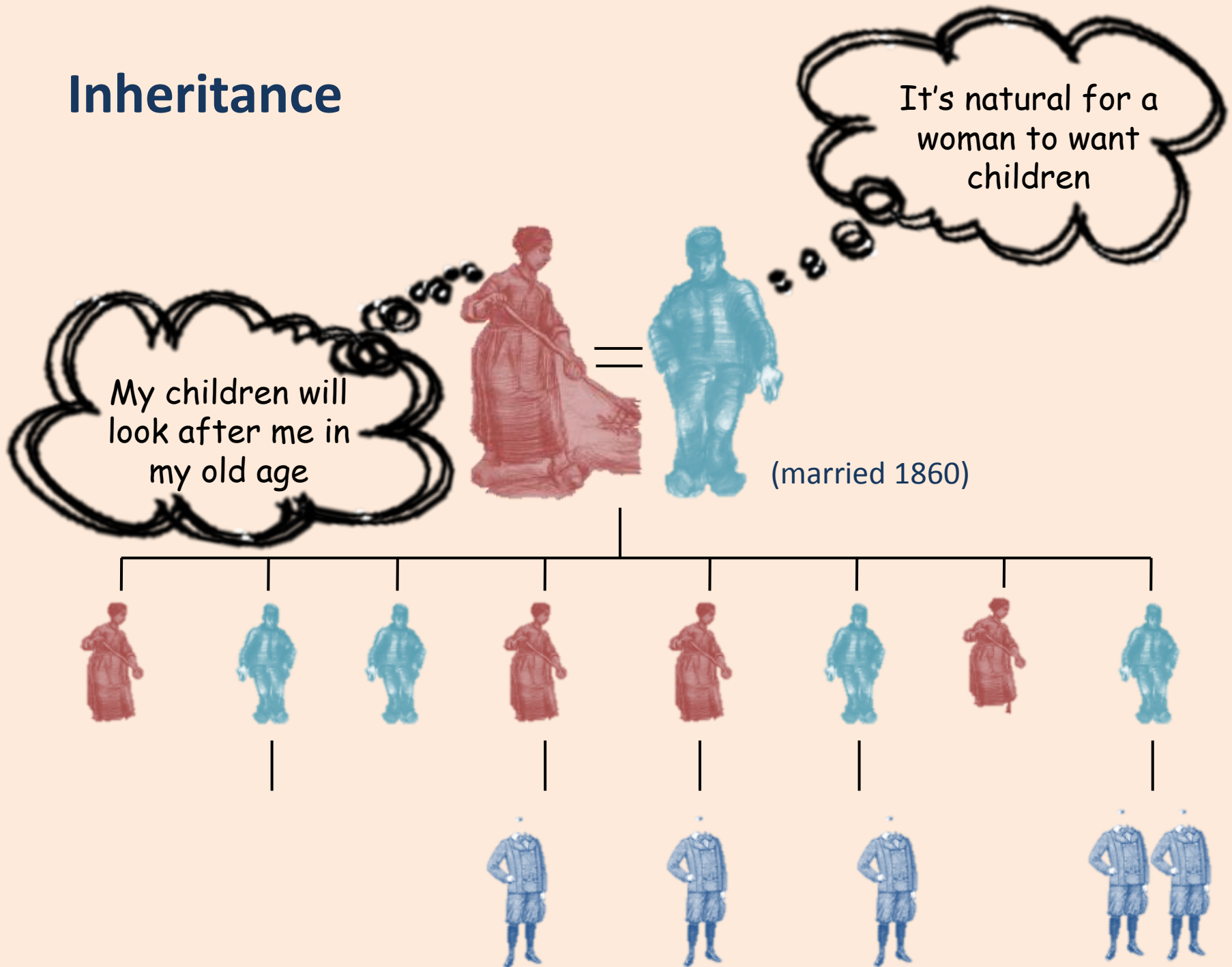
Inheritance



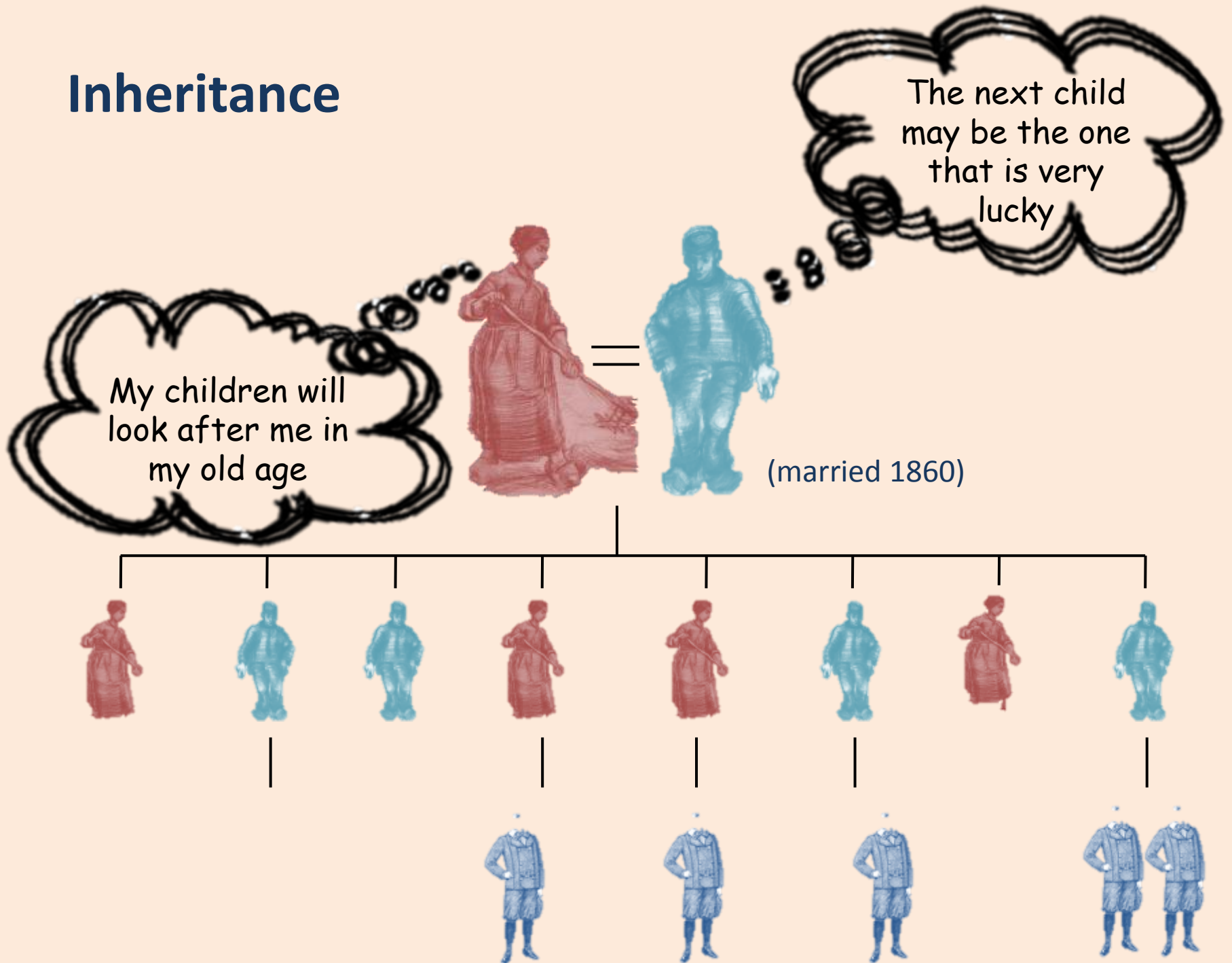
Inheritance



Inheritance



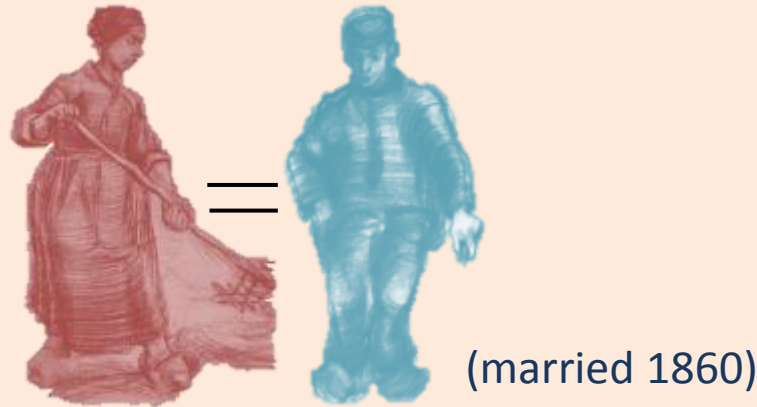
Inheritance



Inheritance and Identity

When the grandparents grew up **The Family** was the main social institution.

It organized labour, education and training, housing, health care leisure, welfare, etc.



People needed their family.

They spent a great deal of time with other family members.

Being a member of a family was their main **social identity**.

- This means that they “internalized “the goals of their family .
- In other words, they saw their family’s goals as their own goals.
- They were primed to inherit cultural information that furthered family interests.

Populations with this family-based structure maintained norms that encouraged individuals to put family interests ahead of their own desires.

Raising many new family members was essential to keep the family strong in the next generation and the future.

The Great Social Reconstruction

New institutions emerged taking over more and more of the family's roles.

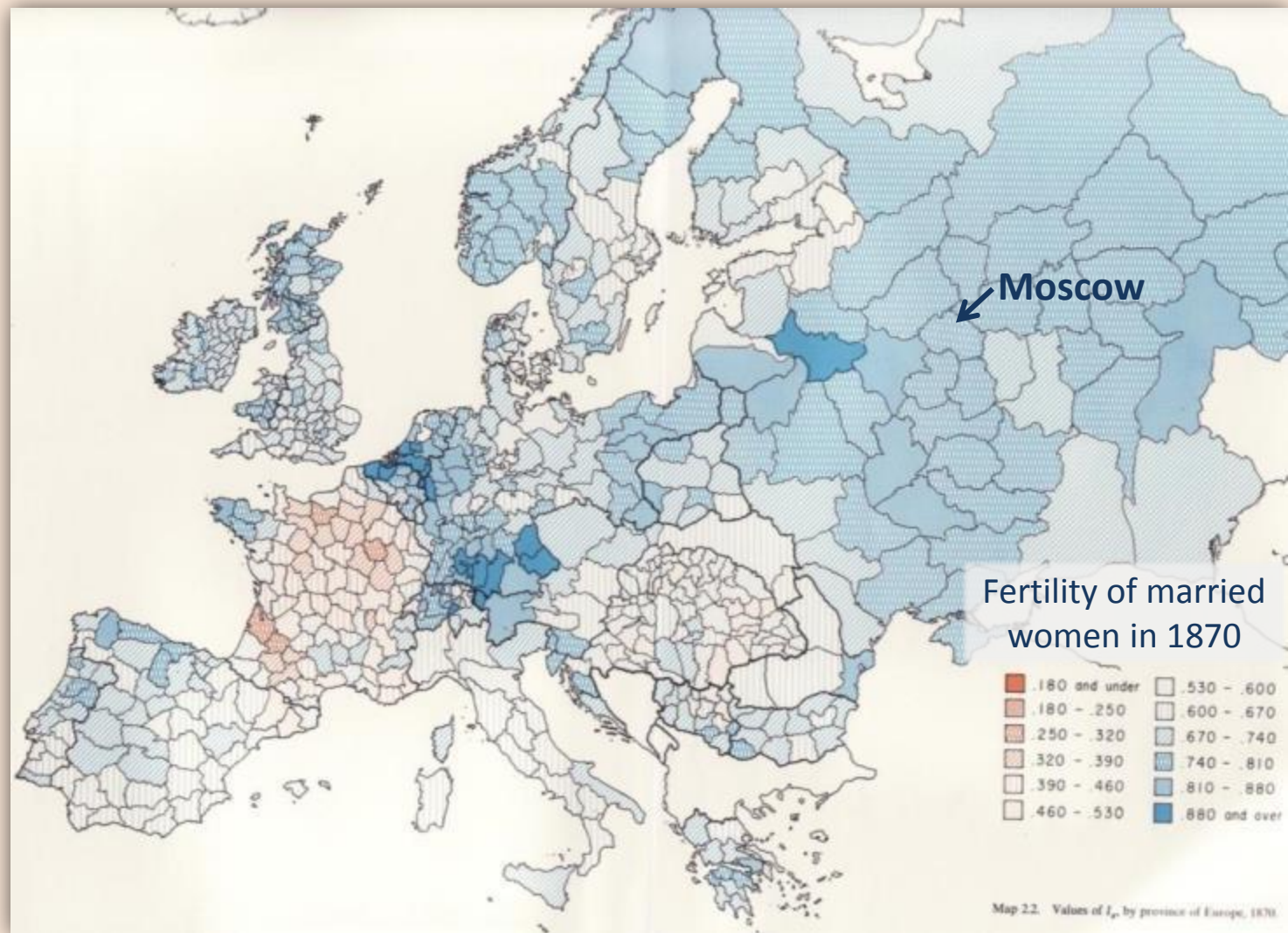
New transport and communication infrastructure allowing wider social interactions and exposing people to information from more and more non-family members.

As a consequence...

- People began to see themselves as members of a number of social groups and they internalized the purposes of these groups.
- They were no longer so strongly primed to inherit cultural information that furthered their family's interests.
- The large number of cultural norms that promoted the family began to weaken.
- Among the first norms to weaken were the ones that promoted the raising of large numbers of children.



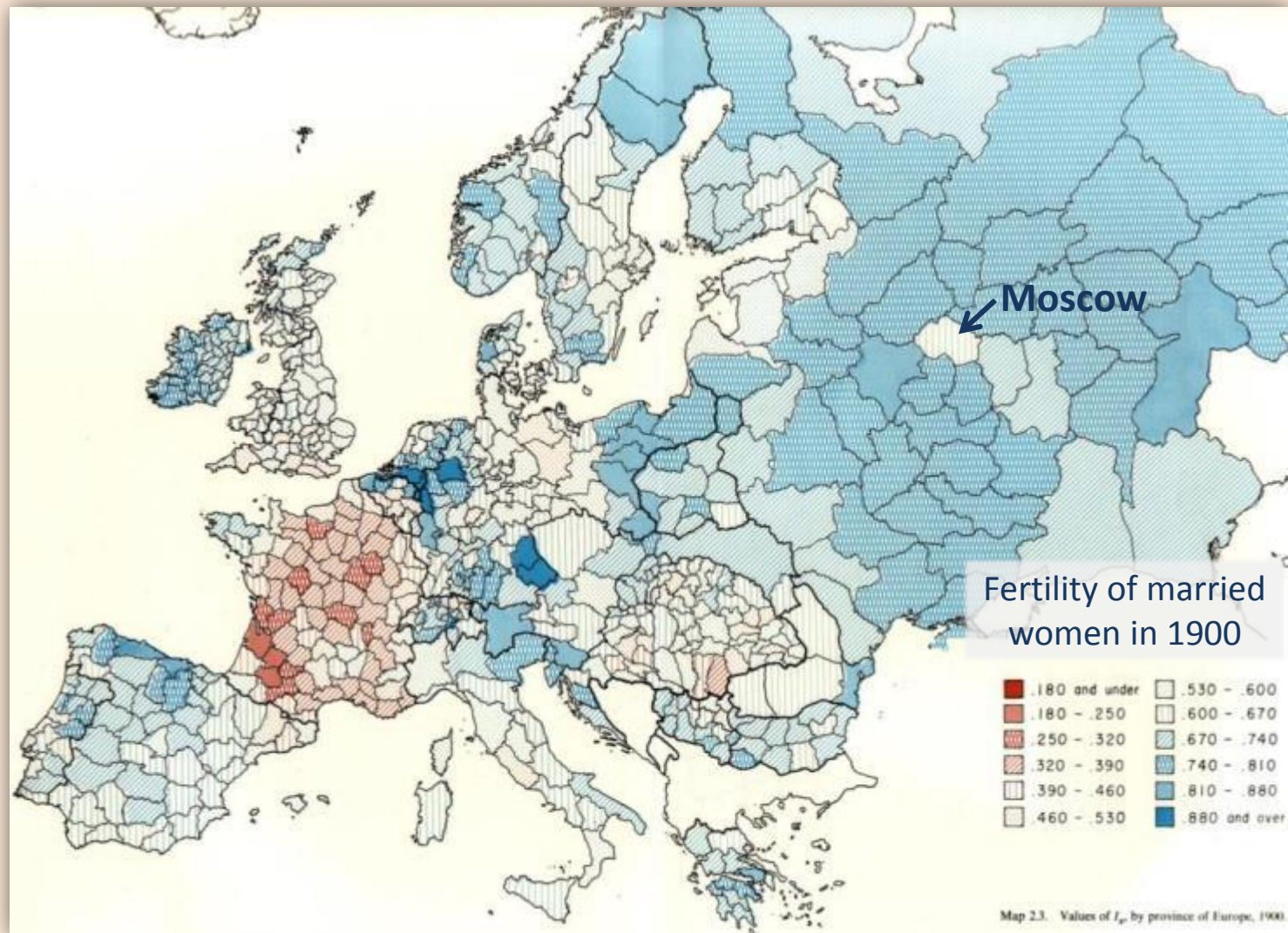
Fertility of married women in 1870



The European Fertility Project

From Coale, A. J., & Watkins, S. C. (1986). *The Decline of Fertility in Europe*. Princeton, N.J.: Princeton University Press.

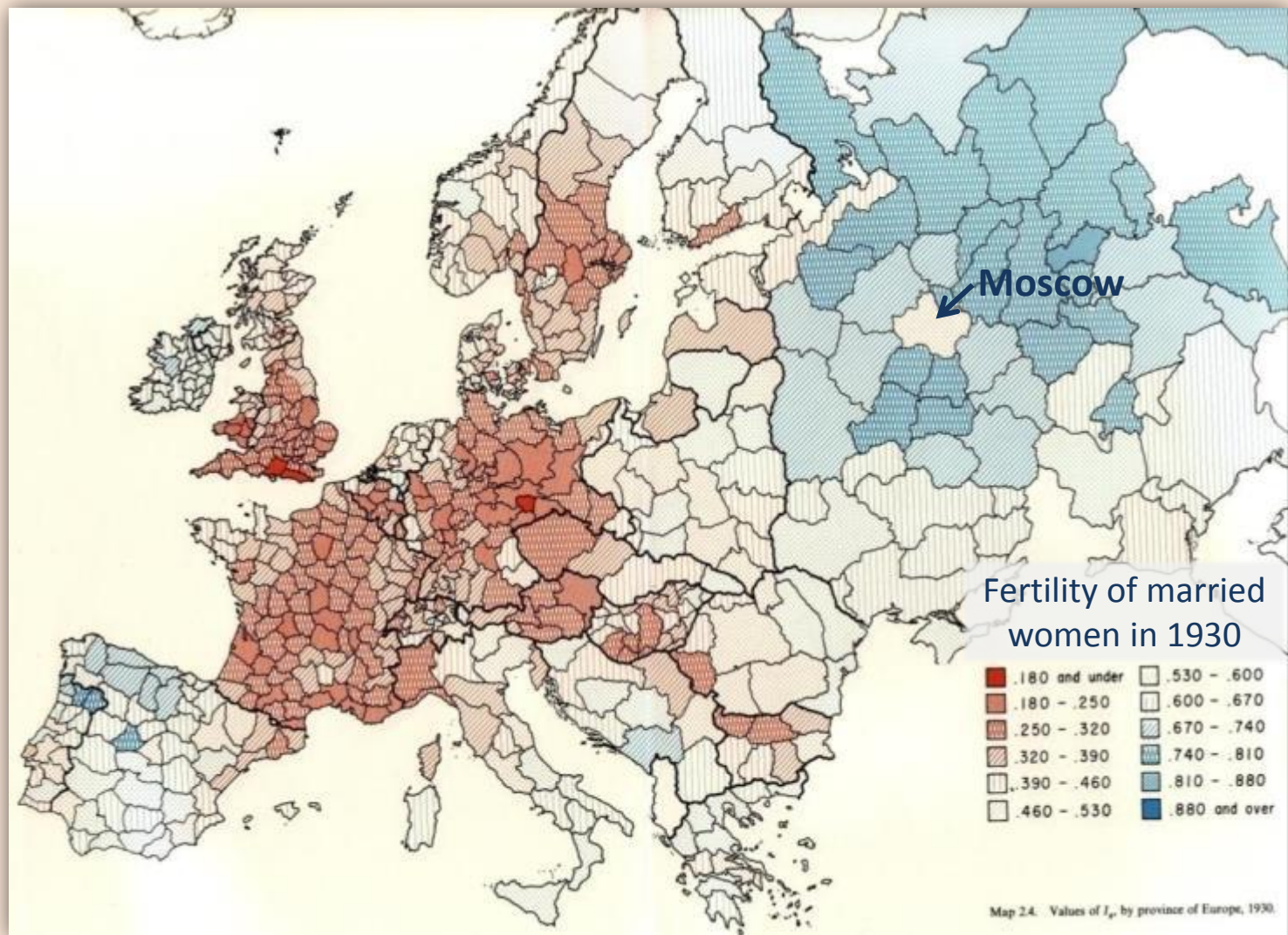
Fertility of married women in 1900



The European Fertility Project

From Coale, A. J., & Watkins, S. C. (1986). *The Decline of Fertility in Europe*. Princeton, N.J.: Princeton University Press.

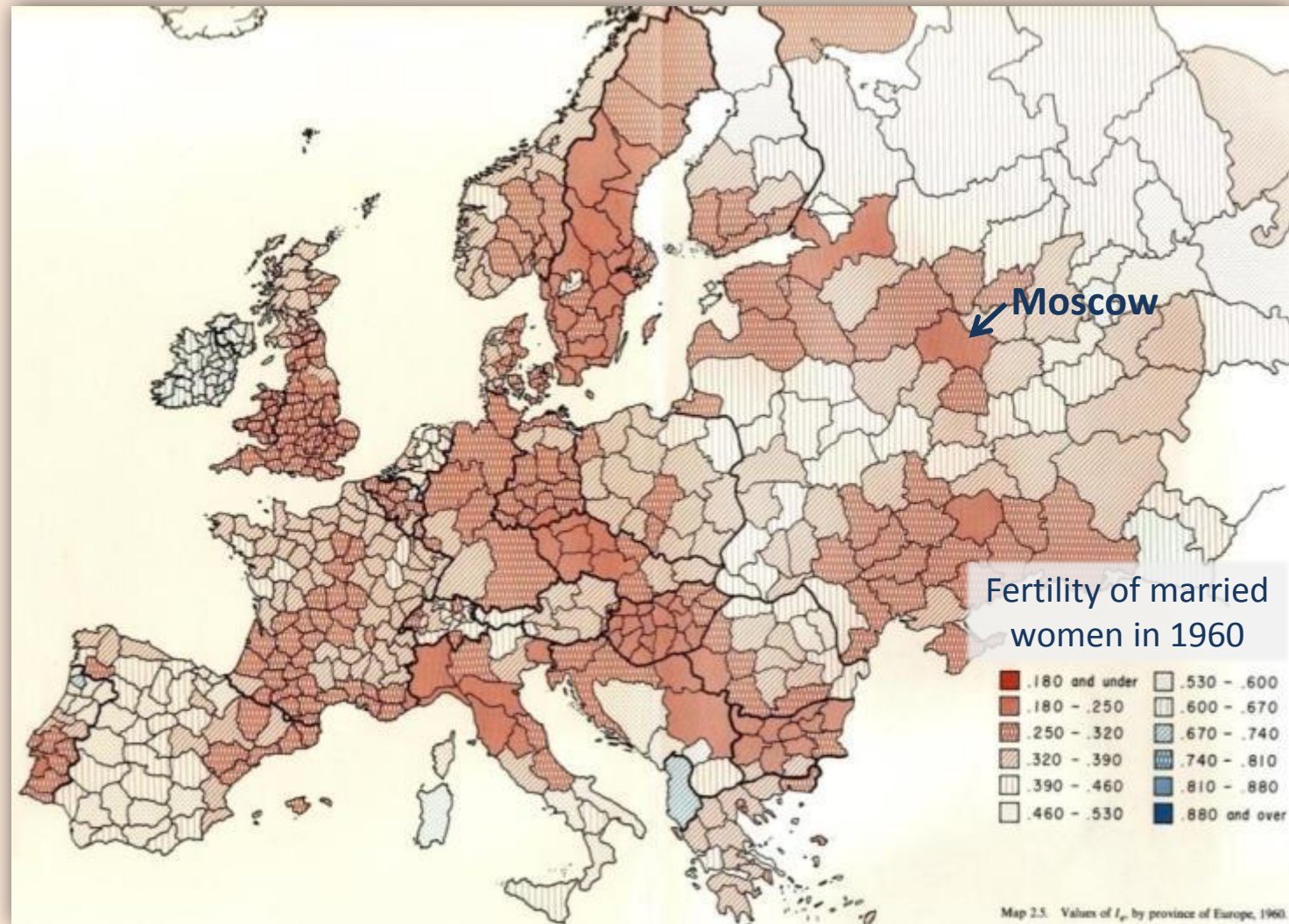
Fertility of married women in 1930



The European Fertility Project

From Coale, A. J., & Watkins, S. C. (1986). *The Decline of Fertility in Europe*. Princeton, N.J.: Princeton University Press.

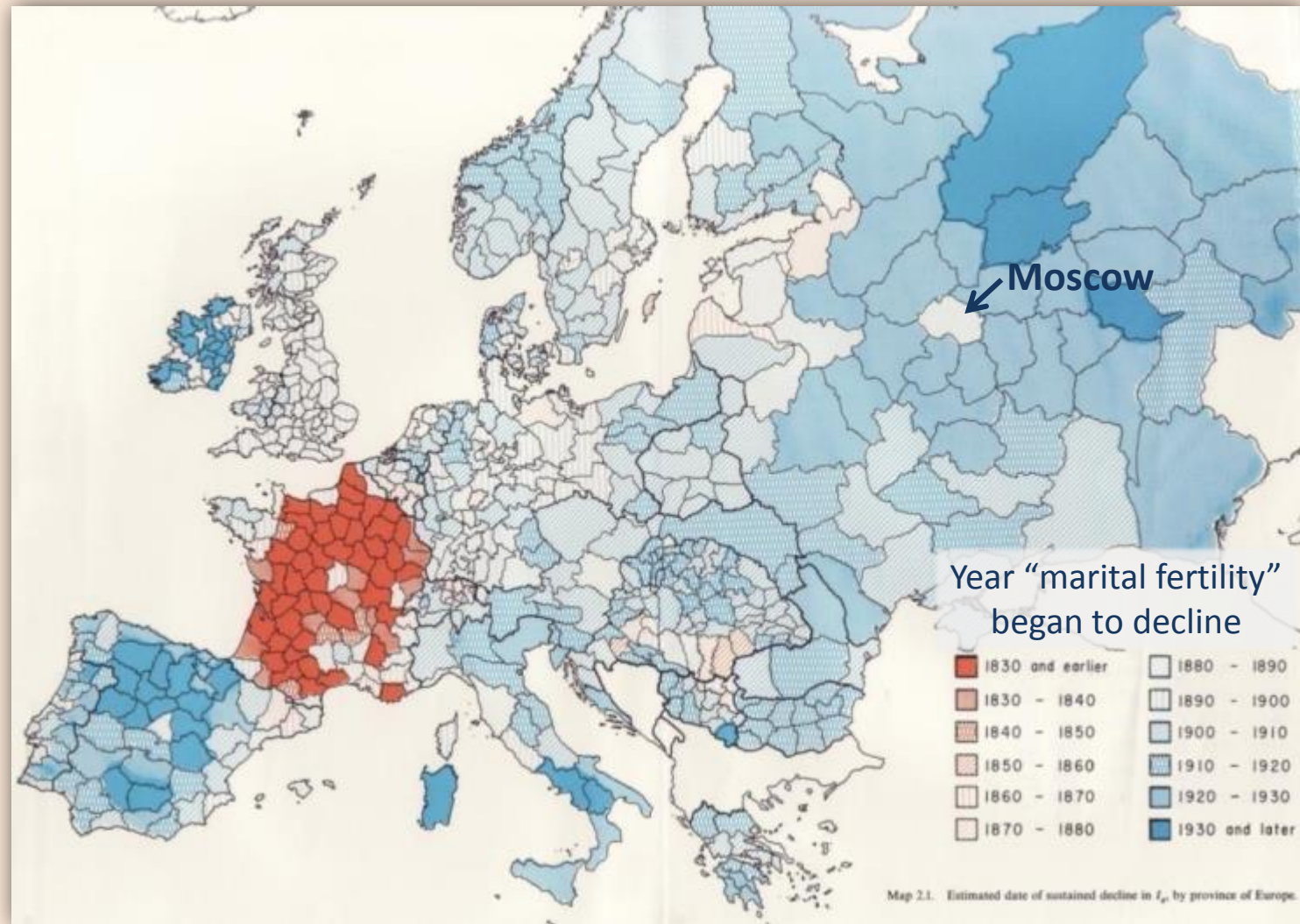
Fertility of married women in 1960



The European Fertility Project

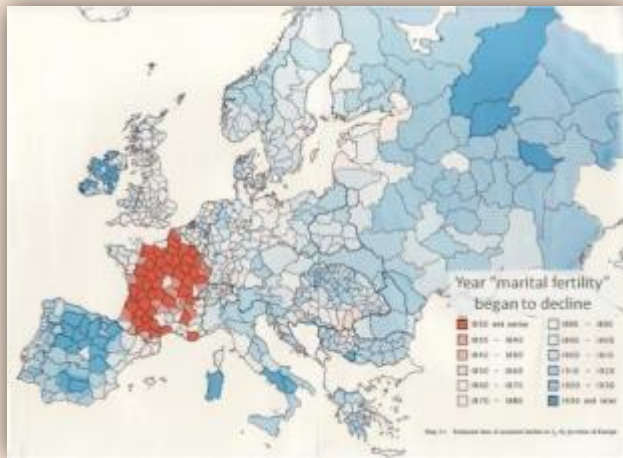
From Coale, A. J., & Watkins, S. C. (1986). *The Decline of Fertility in Europe*. Princeton, N.J.: Princeton University Press.

Year that fertility of married women began to decline



The European Fertility Project

From: Coale, A. J., & Watkins, S. C. (1986). *The Decline of Fertility in Europe*. Princeton, N.J.: Princeton University Press.



Conclusions of European fertility project (Watkins, 1986; Watkins, 1990):

- the timing of fertility decline in the various provinces ***was not well predicted*** by factors that had been suggest would cause individuals to decide to limit family size (wealth, literacy, urbanization, degree of industrialization, level of infant mortality).
- the change occurred at the level of the population ***not*** at the individual level
- the timing ***was*** linked to a growing and enlarging of the social communities to which people belonged

A similar analysis of the timing of fertility decline in non-European countries yielded similar conclusions (Bongaarts & Watkins, 1996).

Fertility decline today today in Africa and South Asia



Compared women in developing countries with large and small families (Kohler, 2001).

Finding:

Women with fewer children had wider social networks.



The women who plan their families are the ones who:

- go to market
- live near a school, a health centre or bus stop
- say they have seen a movie
- have a relative who lives in the town.



Conclusion:

Decline in fertility could be the result of a dramatic change in the pattern of social interactions. People have a wider range of social interactions and no longer “inherit” so much cultural information from their family. They develop non-family social identities and begin to perceive non-family interests as important.

Plan

1. The most important cultural change of modernization
2. Inheritance and identity
3. **Another lesson from biological evolution.**
4. Becoming more and more modern.
5. A natural experiment – the Amish

What evolutionary change is like



These 3 fish are all Mexican tetras

But ancestors of one of them experienced a dramatic change in their environment.

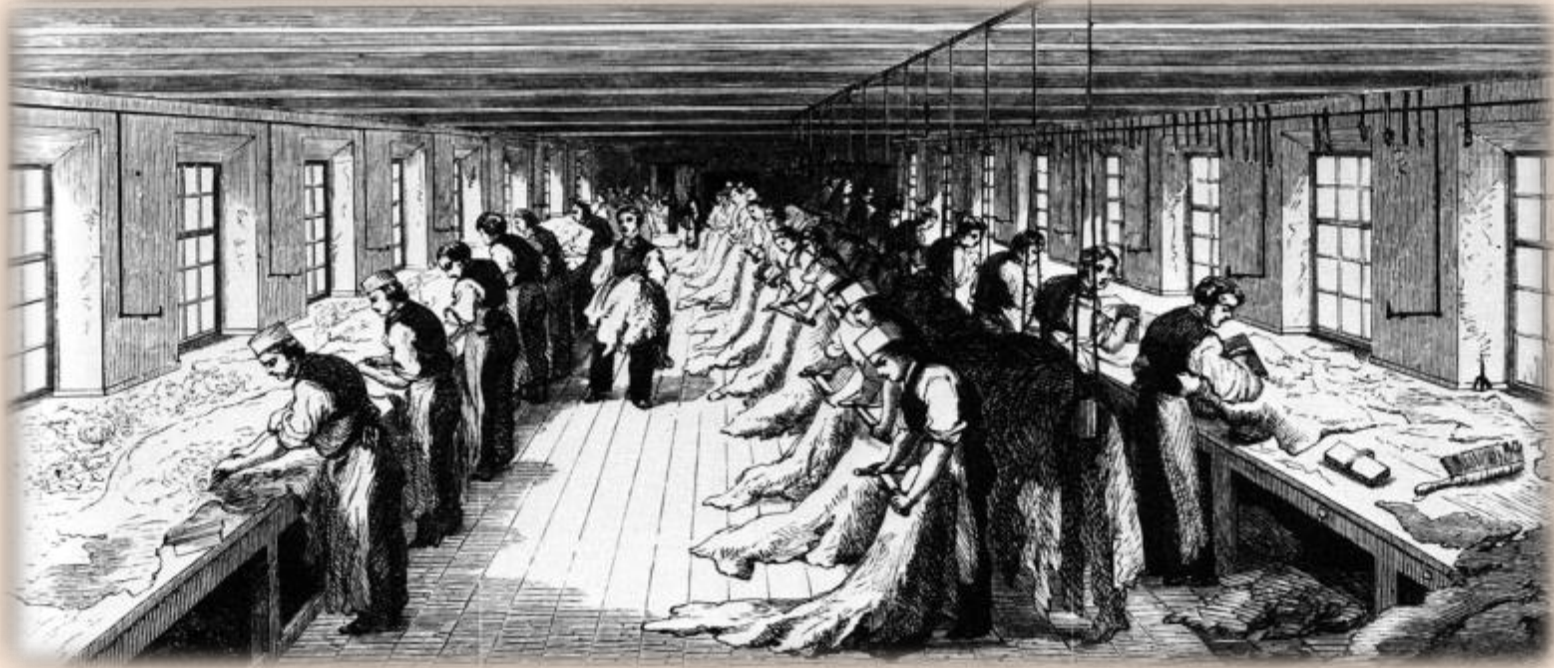
They became trapped in a dark cave with little food.

The fish in the cave changed but the change was slow, taking many generations because they continued to inherit genetic information from their parents.

Variation was created because of accidental mutations in genetic information.

Characteristics that would have made fish poorly adapted to the lighted environment were beneficial in the dark and so gradually became more common until, after many generations, a number of changes had accumulated.

The same must be true for culture



The **Great Social Reconstruction** dramatically changed people's environment. **BUT** they continued to inherit cultural information that evolved in the old one. We therefore should not expect all of the cultural change resulting from that environmental change to occur immediately or in a single generation. If cultural change is evolutionary, we should expect changes to continue to accumulate in response to an environmental change for many generations. The rapid cultural change we experience today may be that continued response.

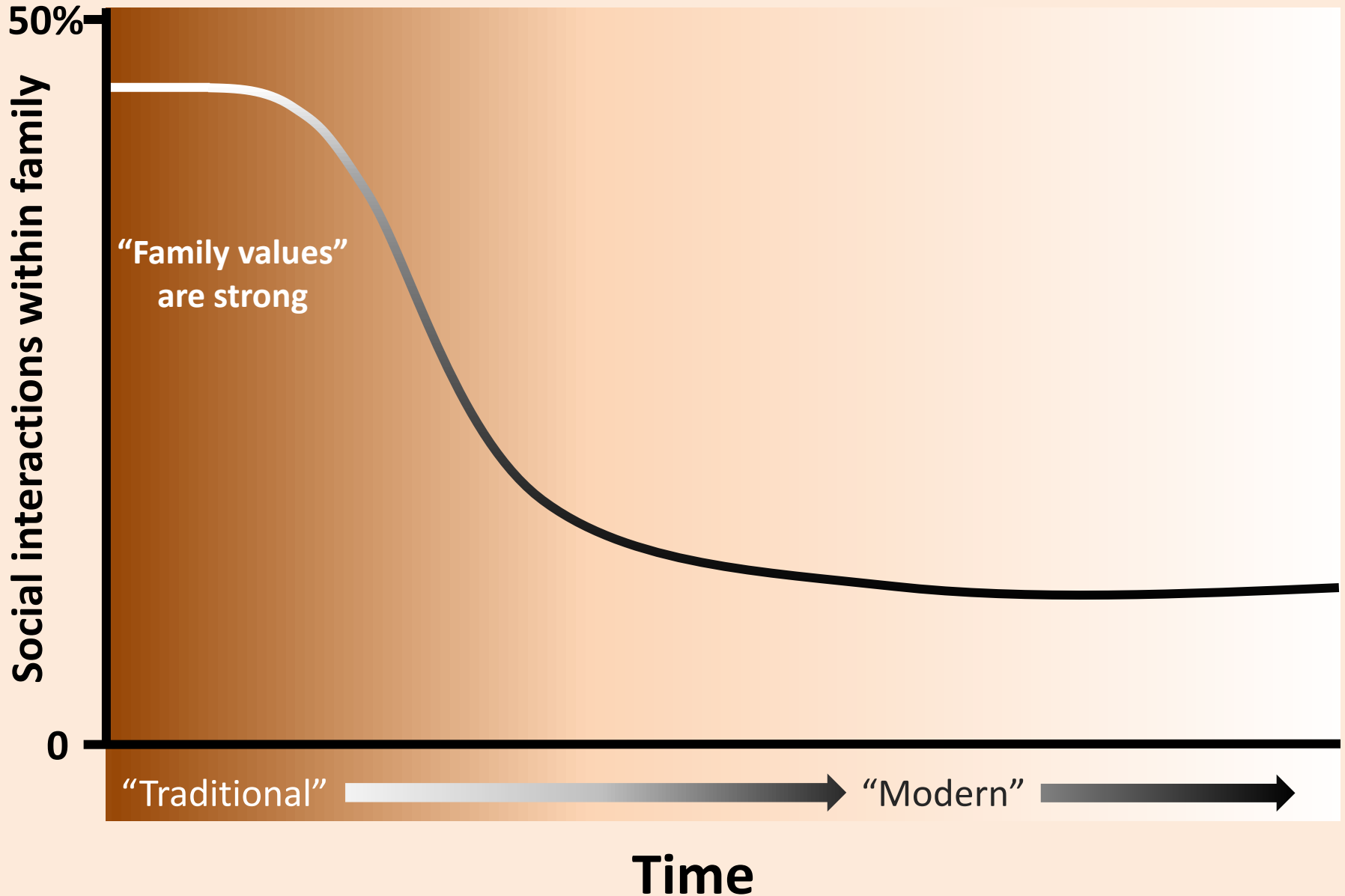
Conclusion:

The cultural change we experience today may be driven by the social reconstruction that happened several generations ago. The changes may not be related to environmental changes that we are experiencing today.

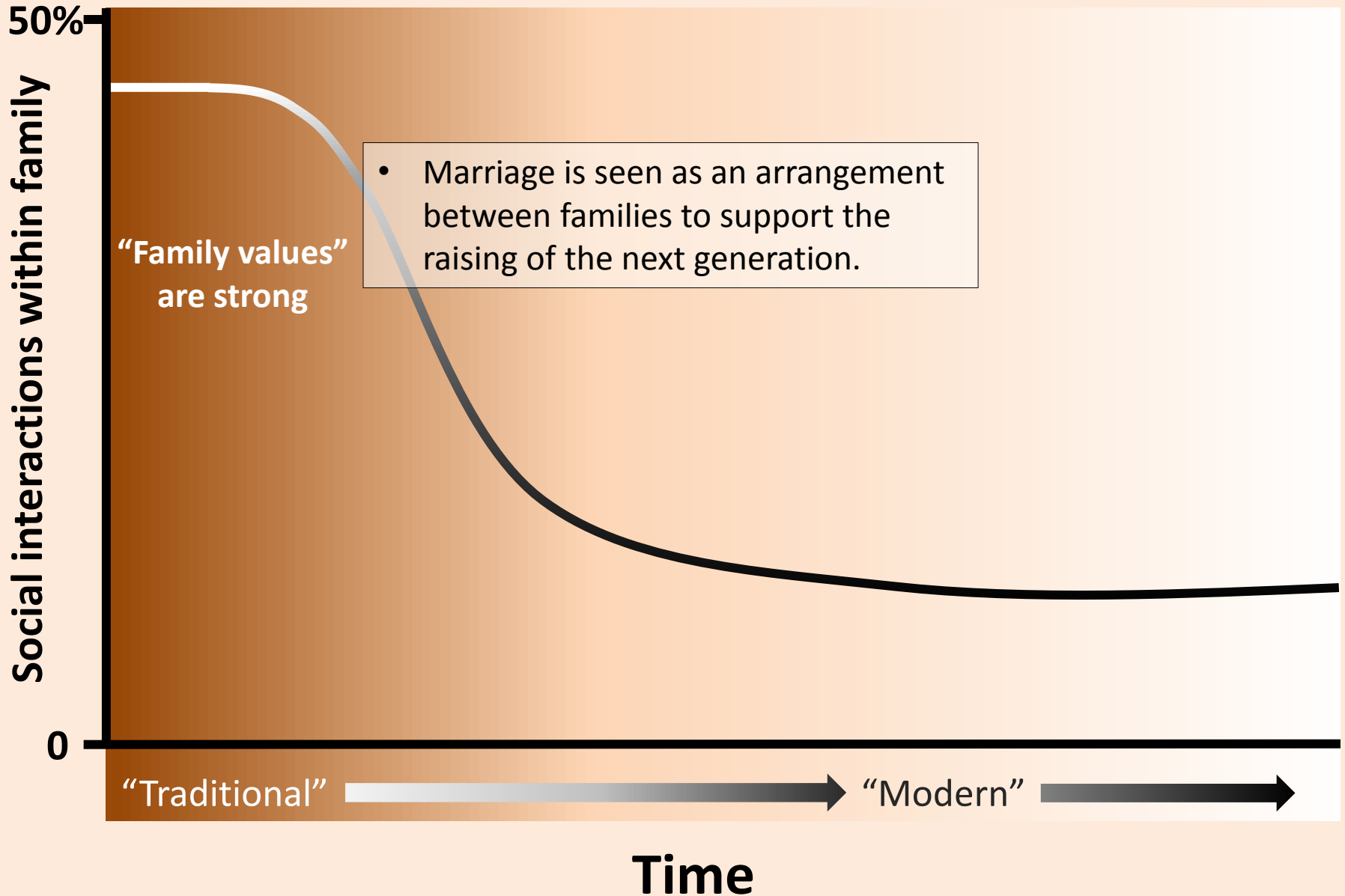
Plan

1. The most important cultural change of modernization
2. Inheritance and identity
3. Another lesson from biological evolution.
4. **Becoming more and more modern.**
5. A natural experiment – the Amish

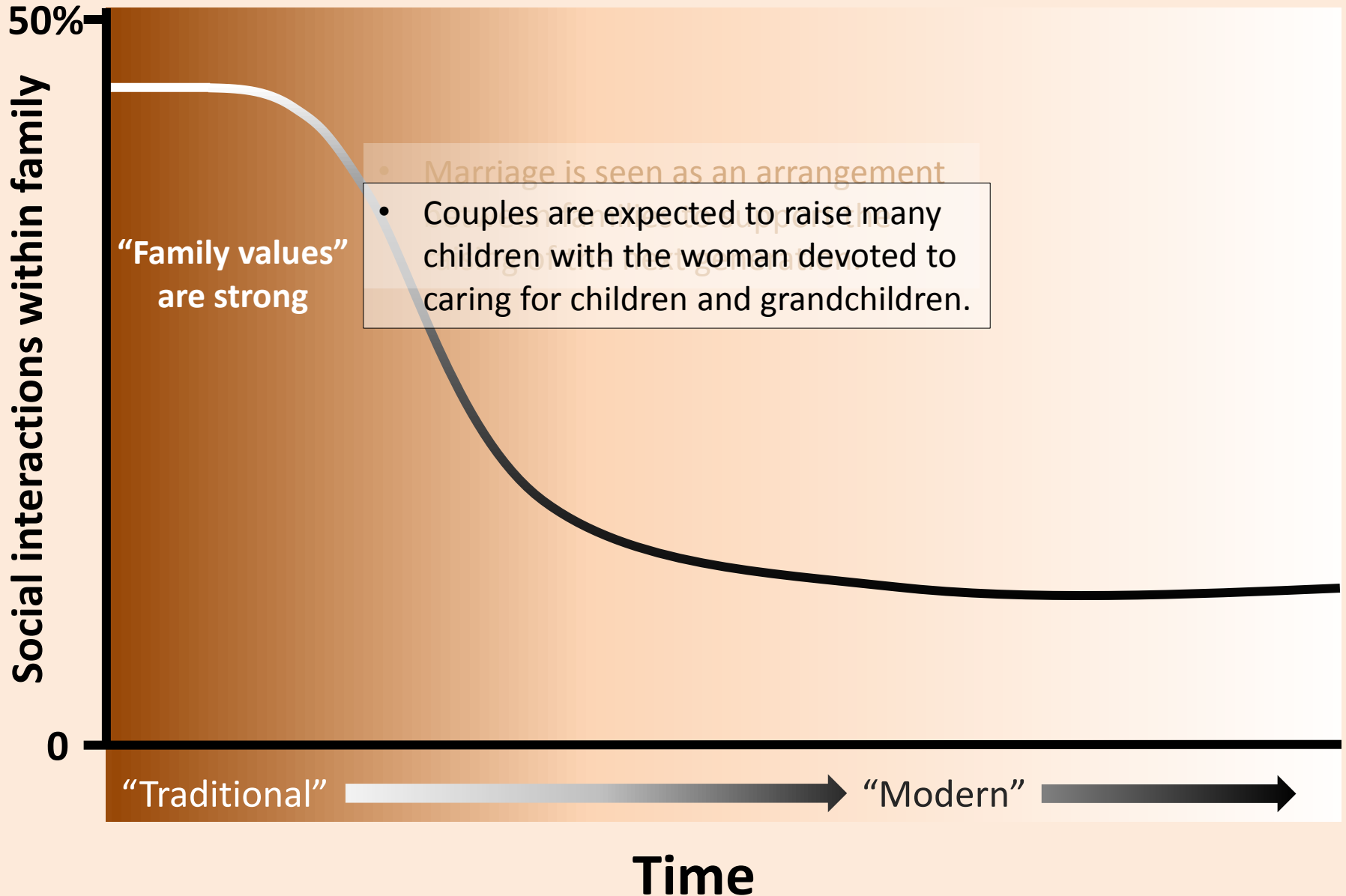
The accumulation of modern beliefs?



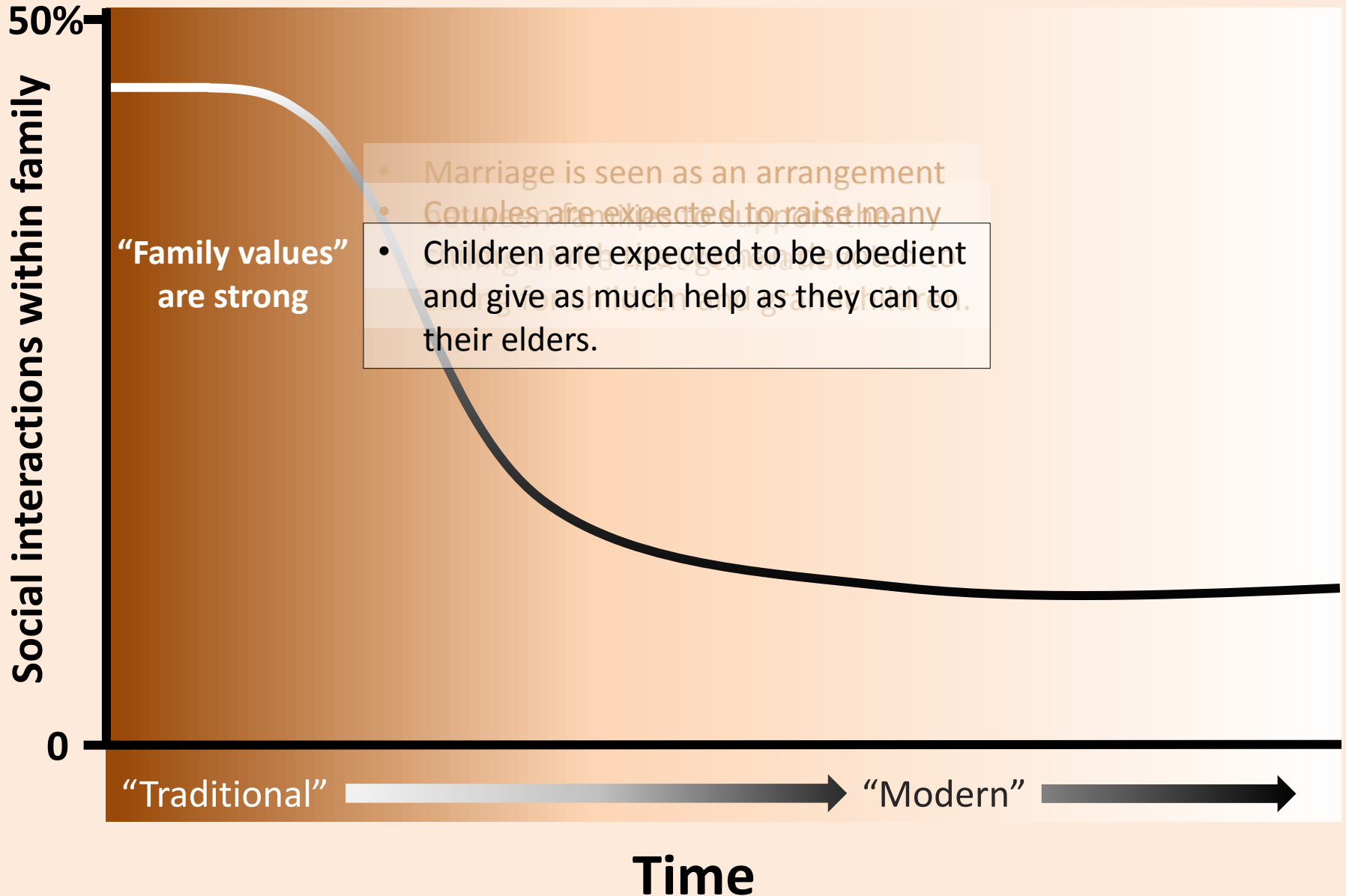
The accumulation of modern beliefs?



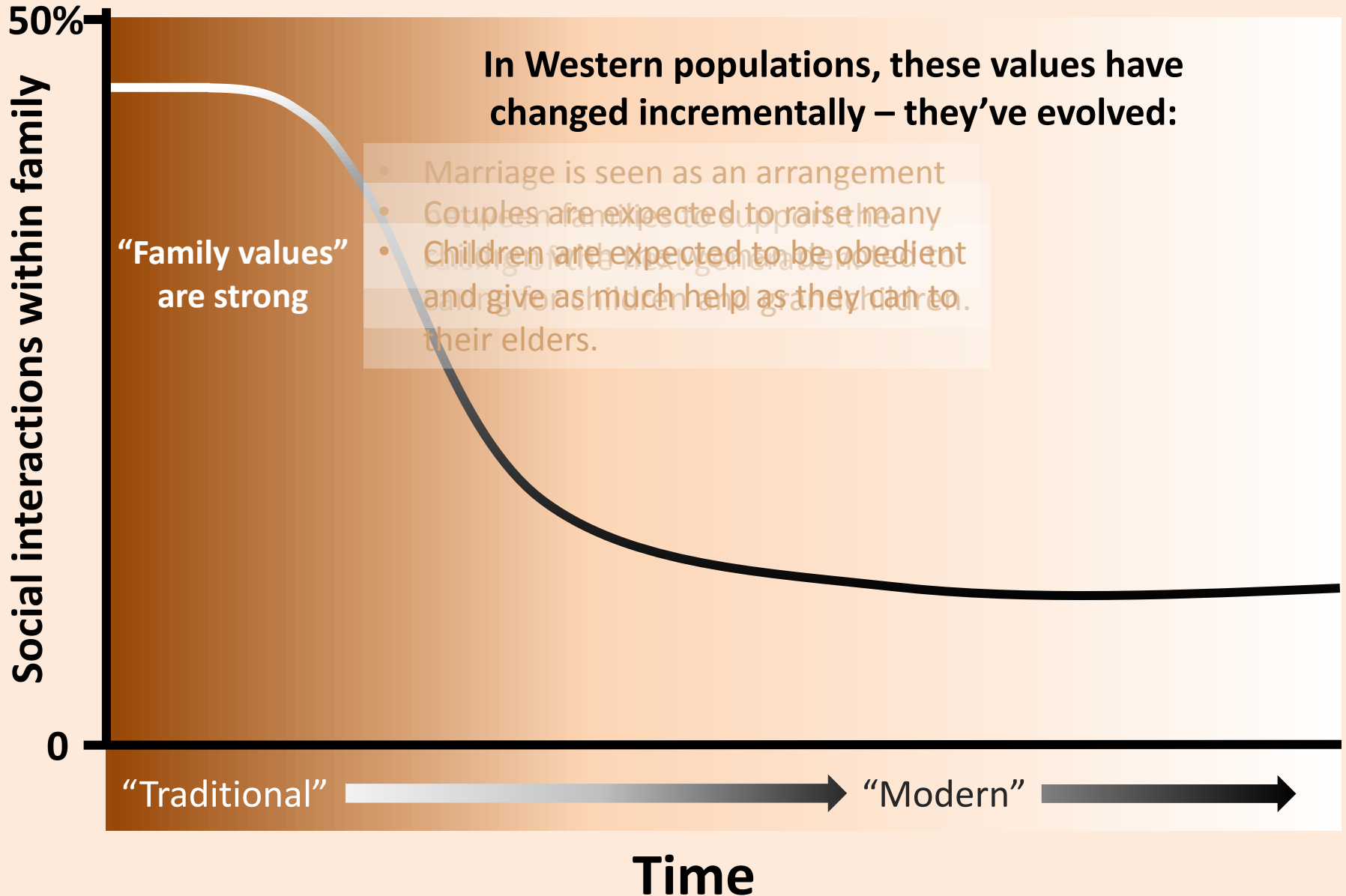
The accumulation of modern beliefs?



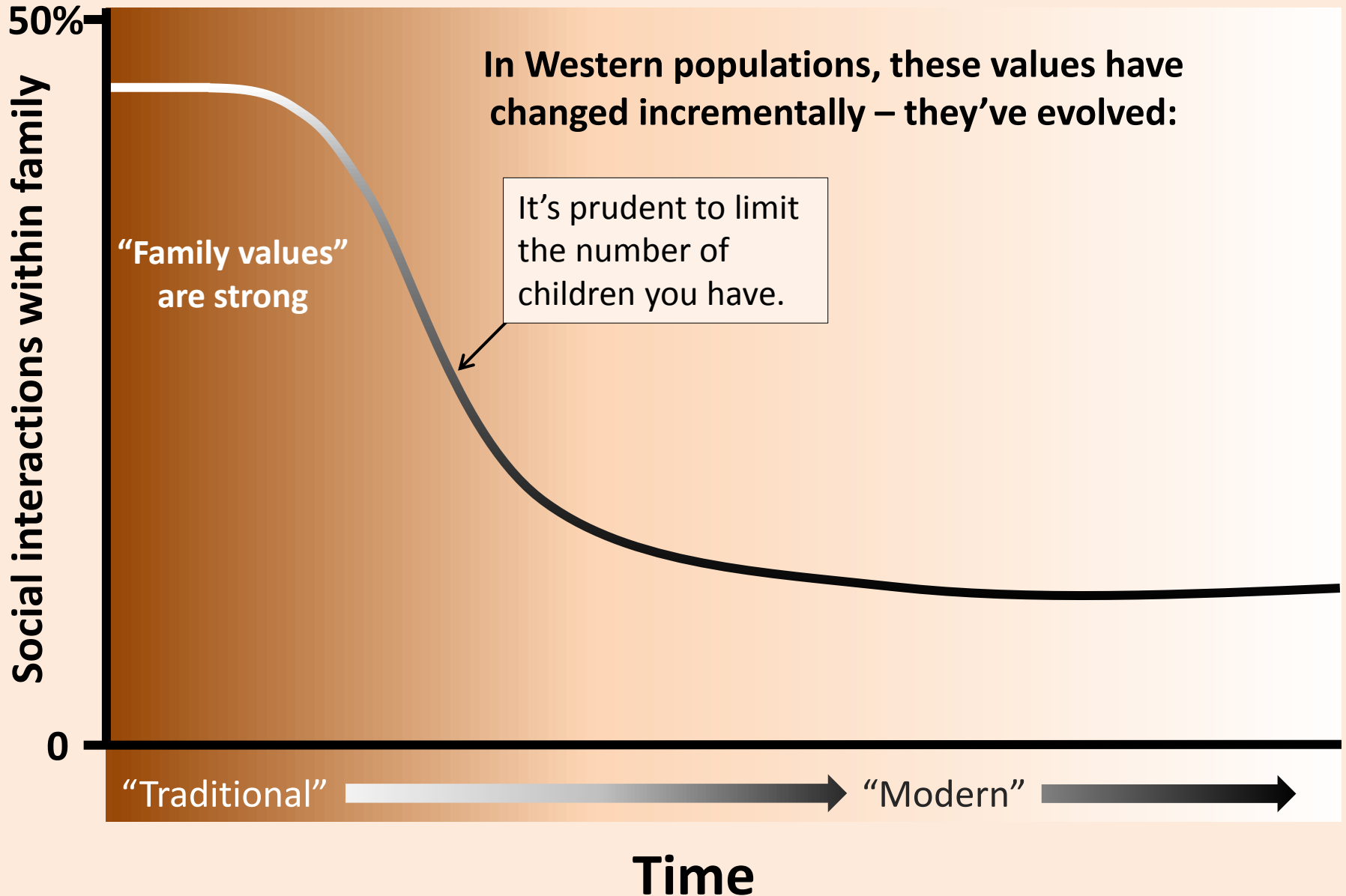
The accumulation of modern beliefs?



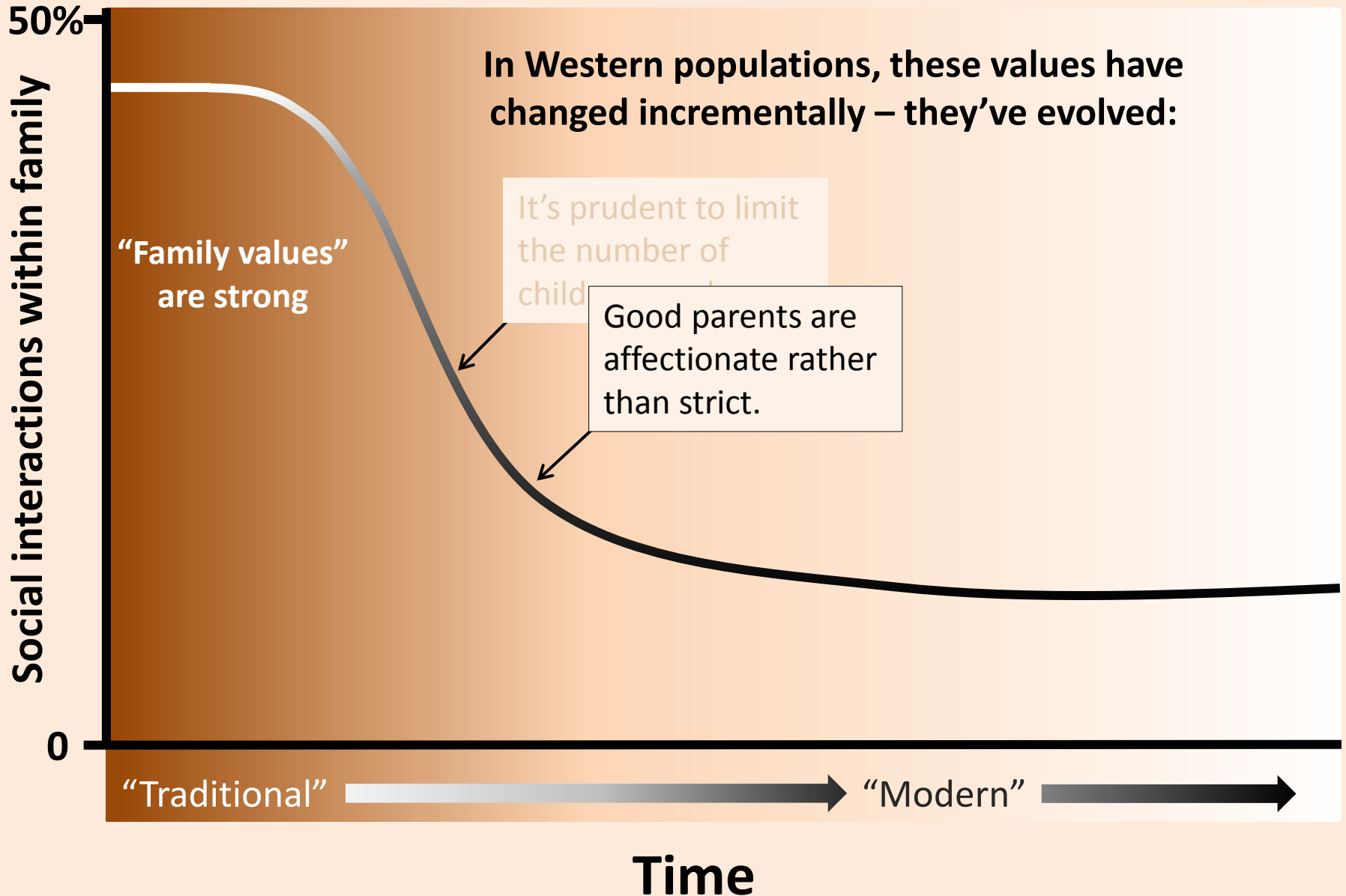
The accumulation of modern beliefs?



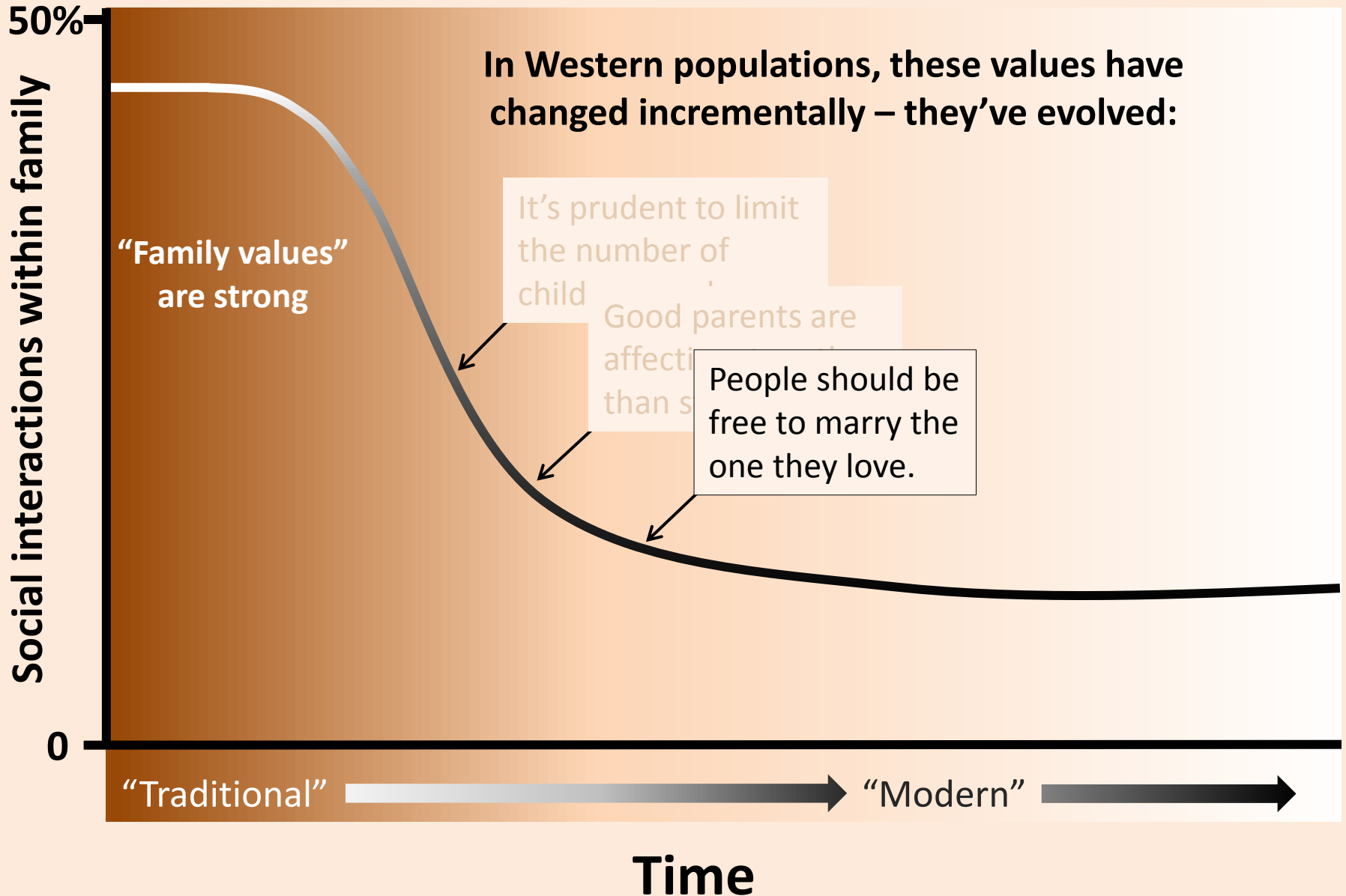
The accumulation of modern beliefs?



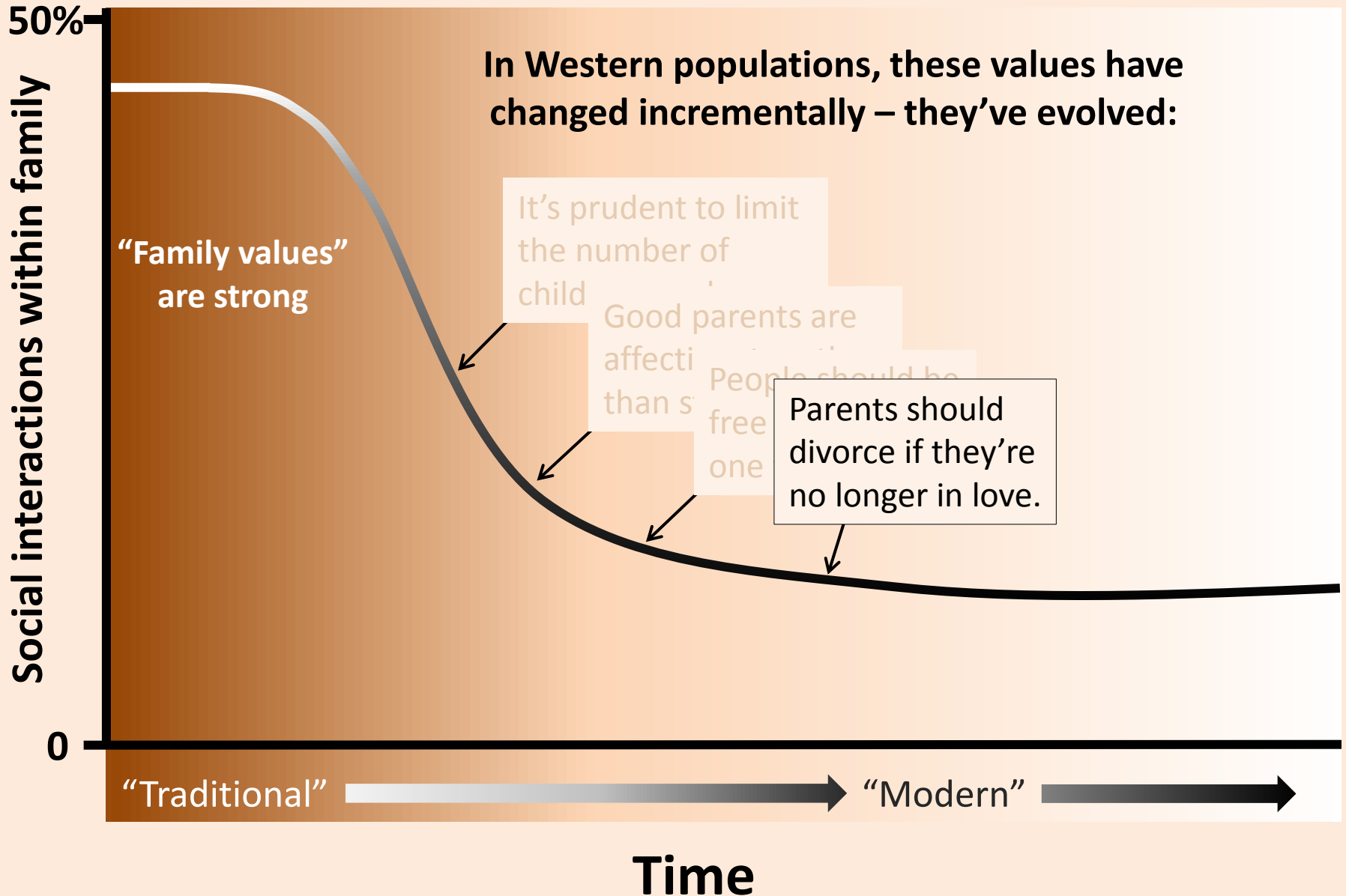
The accumulation of modern beliefs?



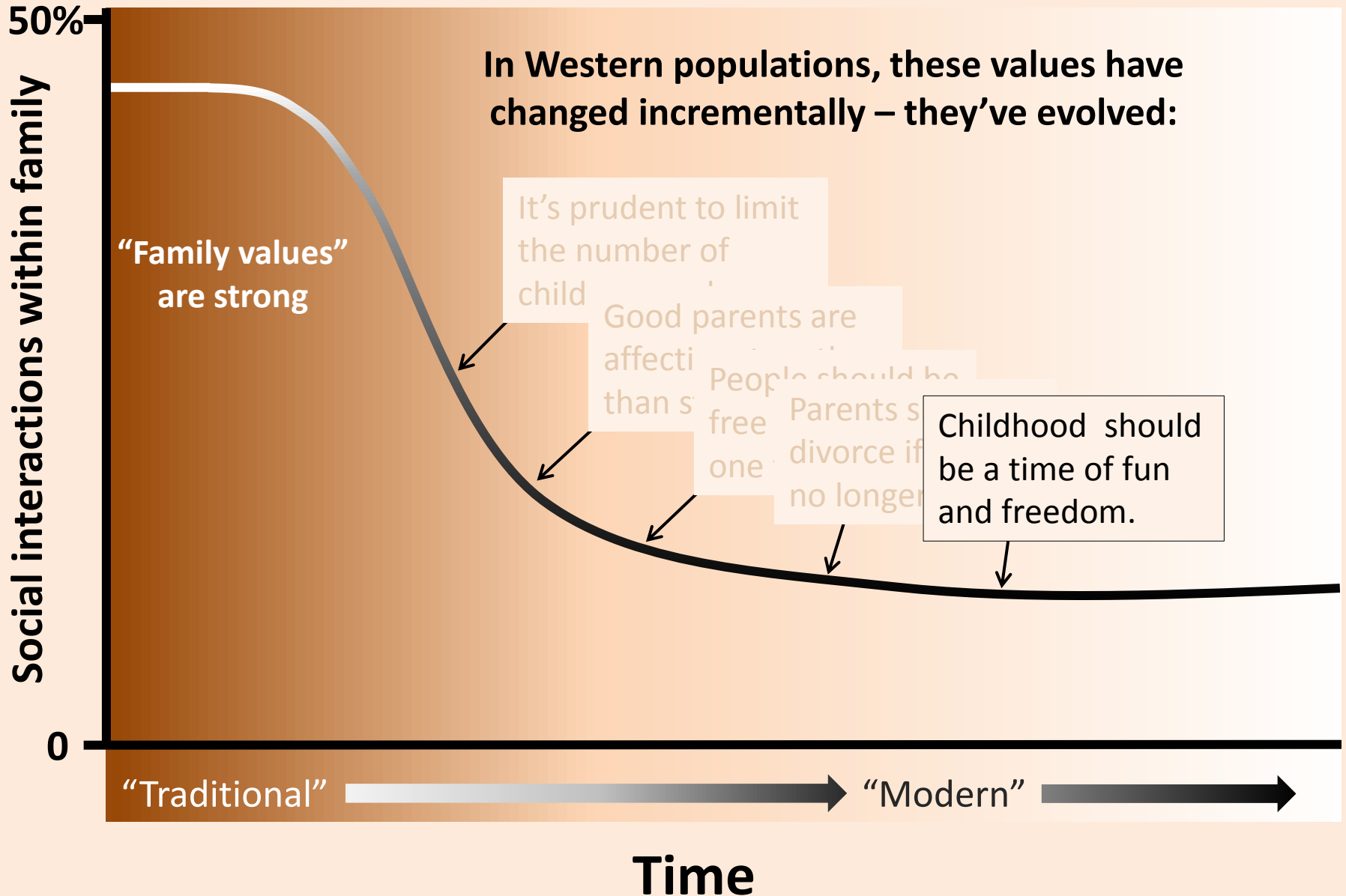
The accumulation of modern beliefs?



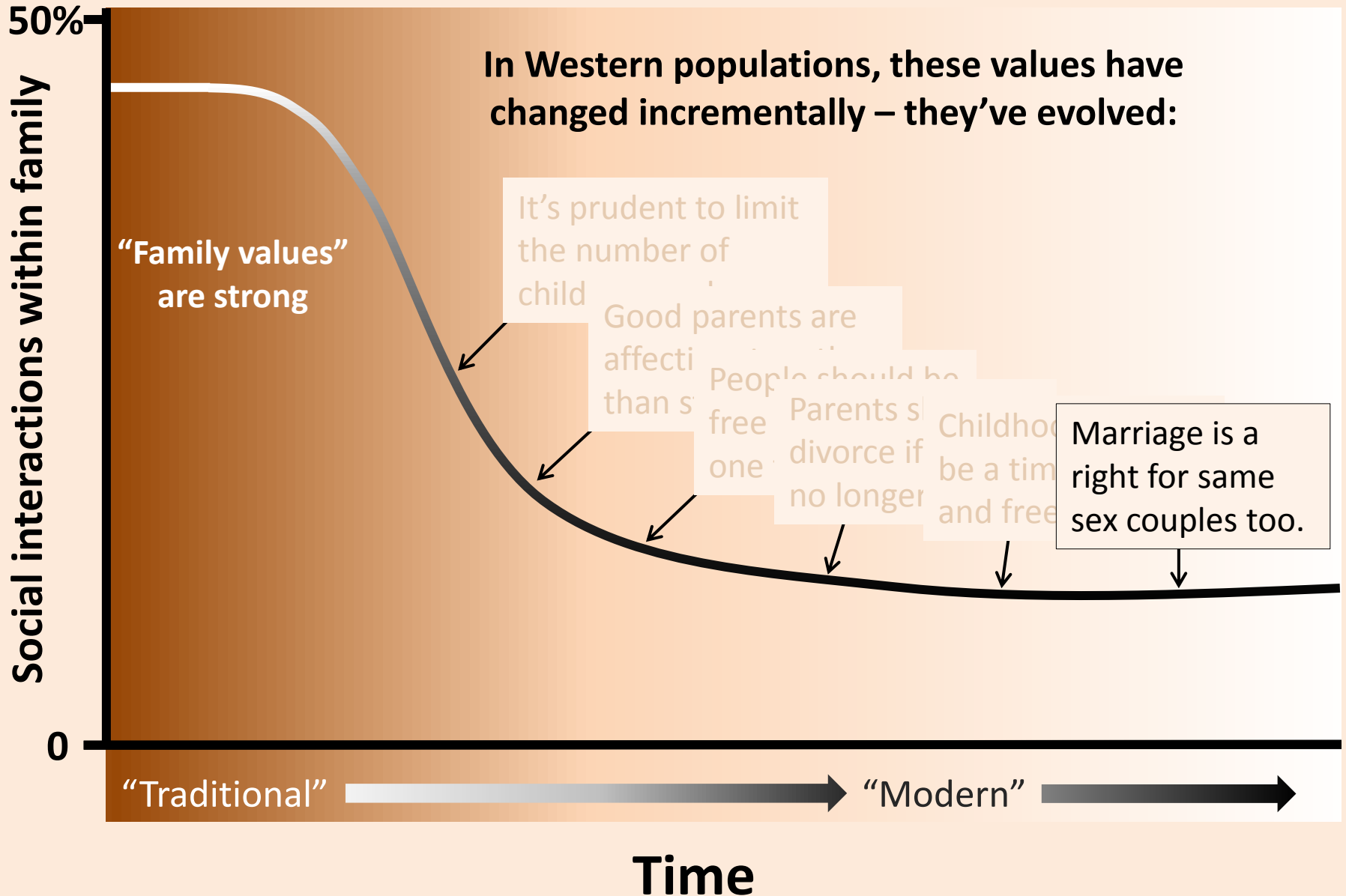
The accumulation of modern beliefs?



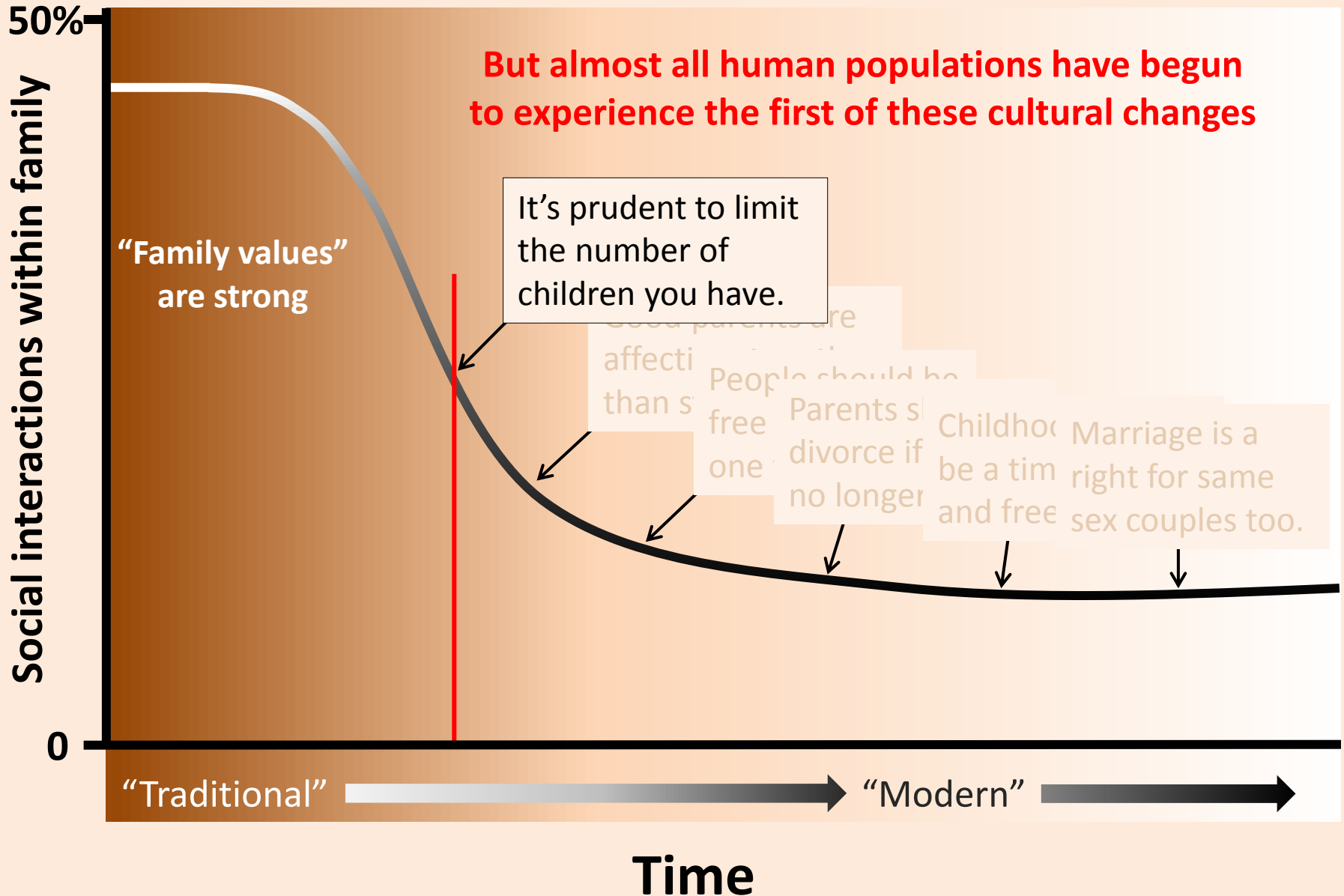
The accumulation of modern beliefs?



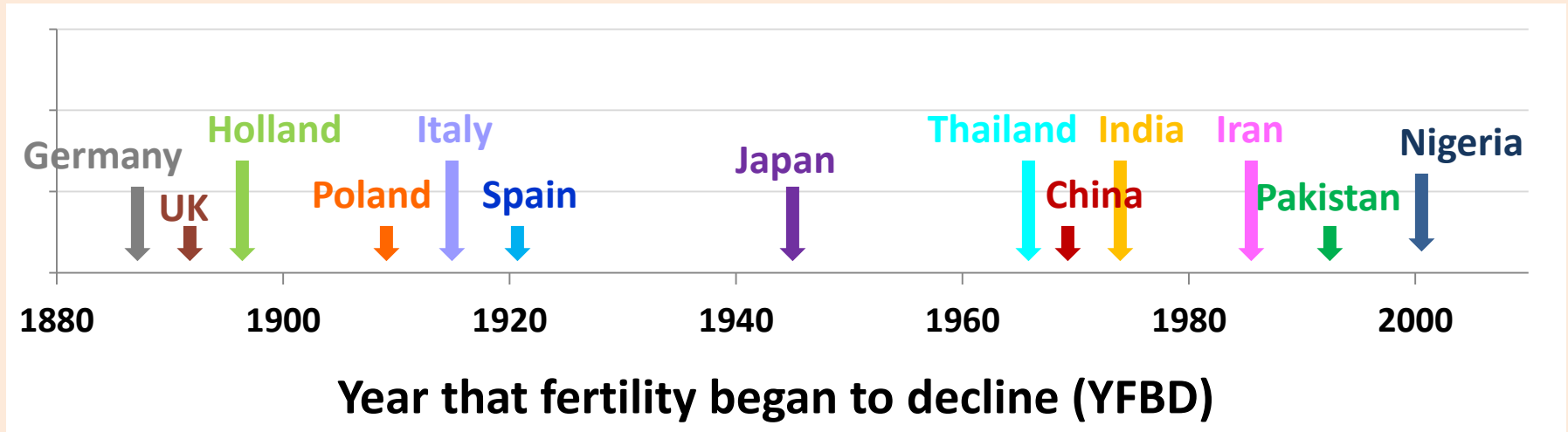
The accumulation of modern beliefs?



The accumulation of modern beliefs?



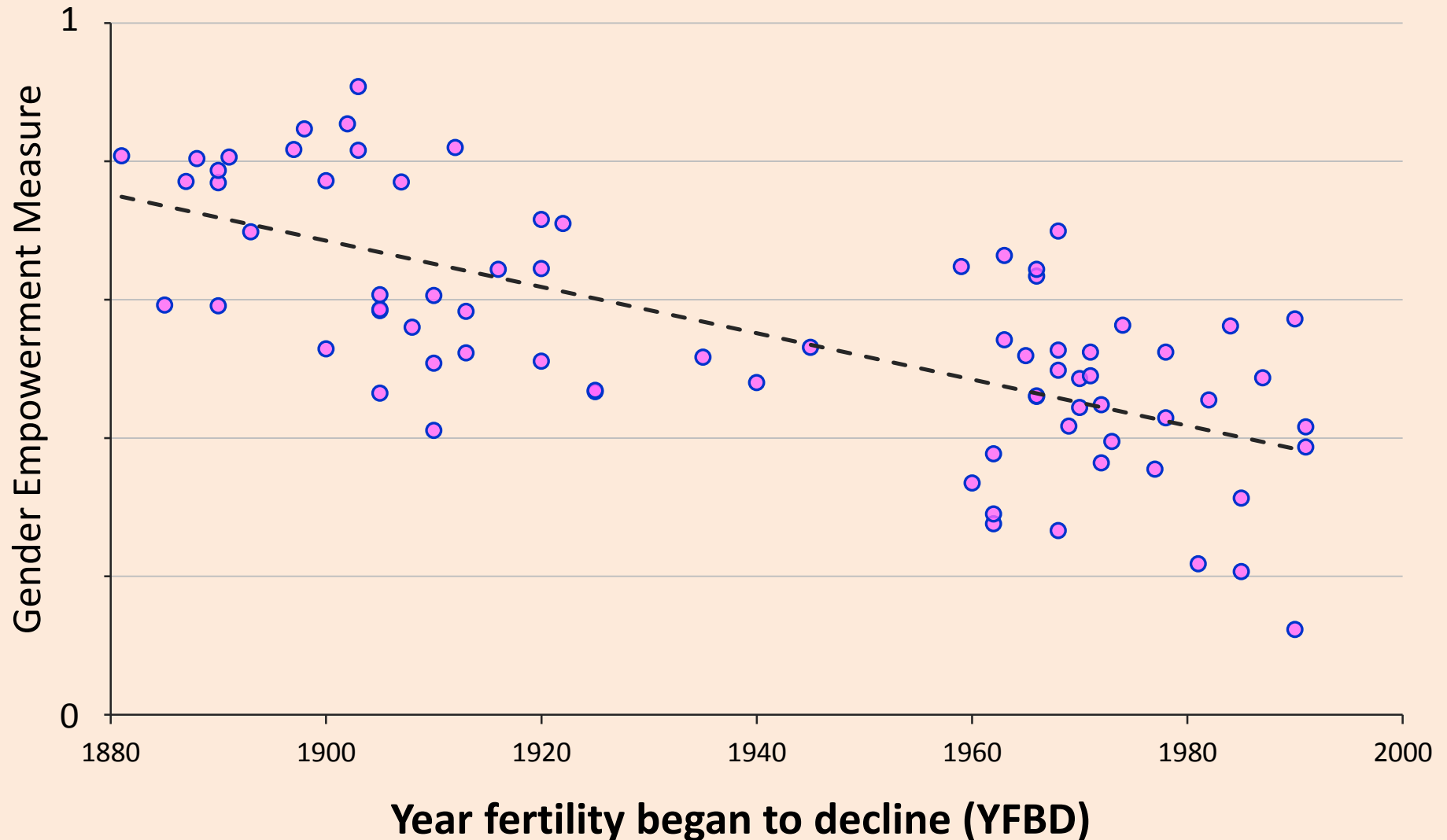
And we know when they experienced it.



If limiting family size is an early sign that the population has begun to experience the cultural change in response to a less family-based social environment is, then it provides a potentially useful indicator of how long the population has been adapting to the social reconstruction.

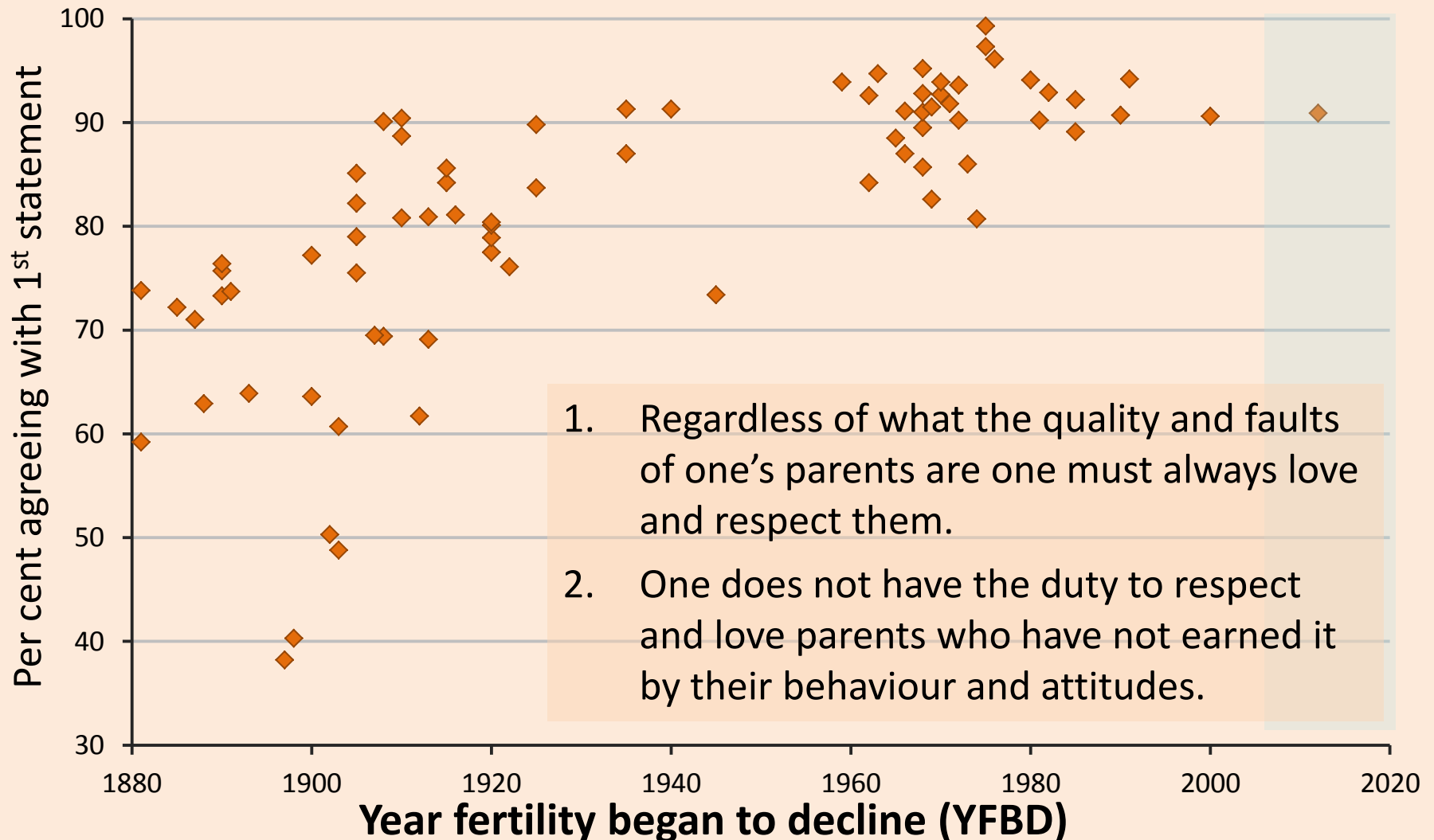
Gender empowerment

The degree to which women can personally achieve wealth and status in a country provides an indication of the breakdown of gender roles.



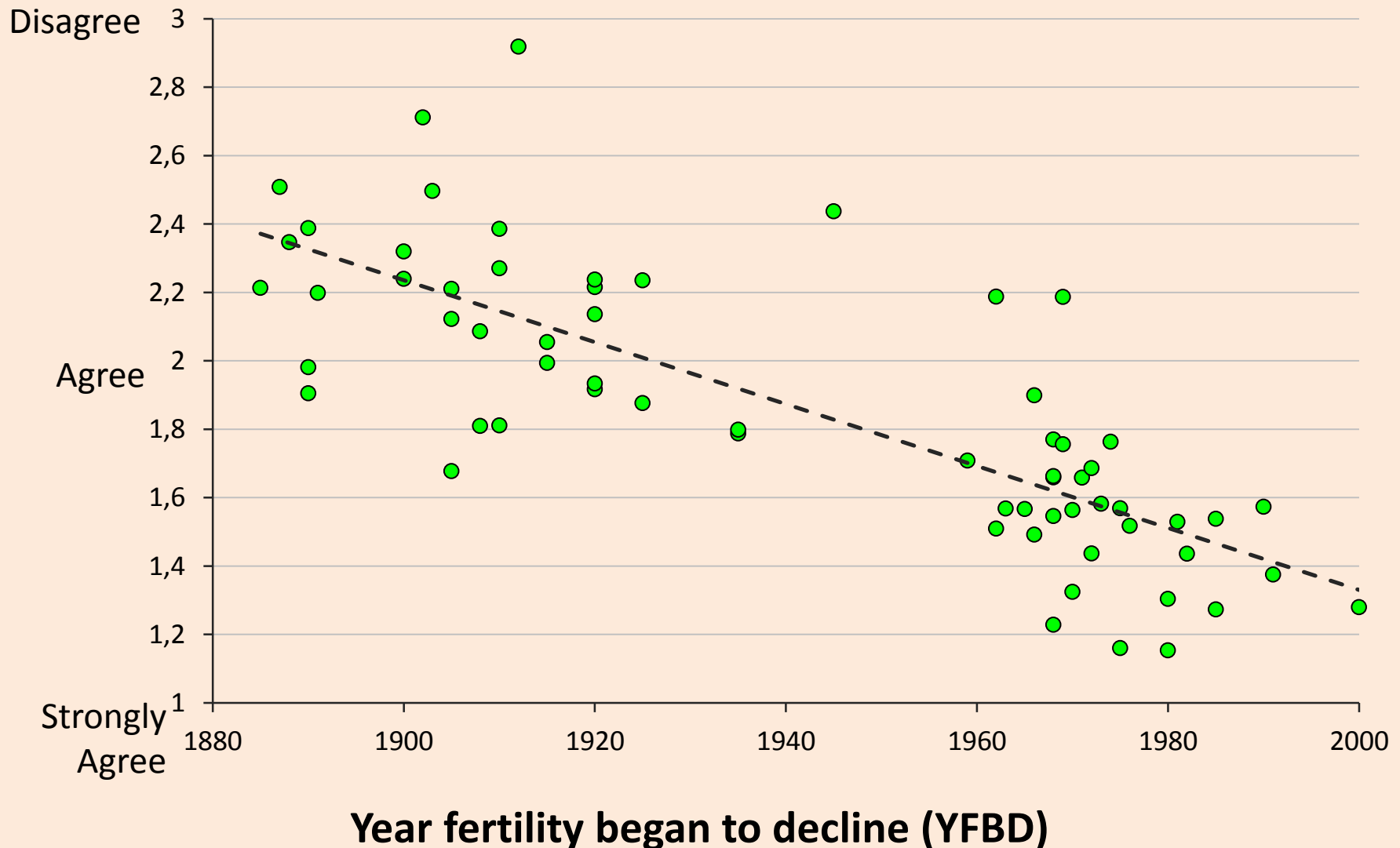
Behaviour of children:

Proportion in a country who believe it is a child's duty always to love and respect his or her parents.



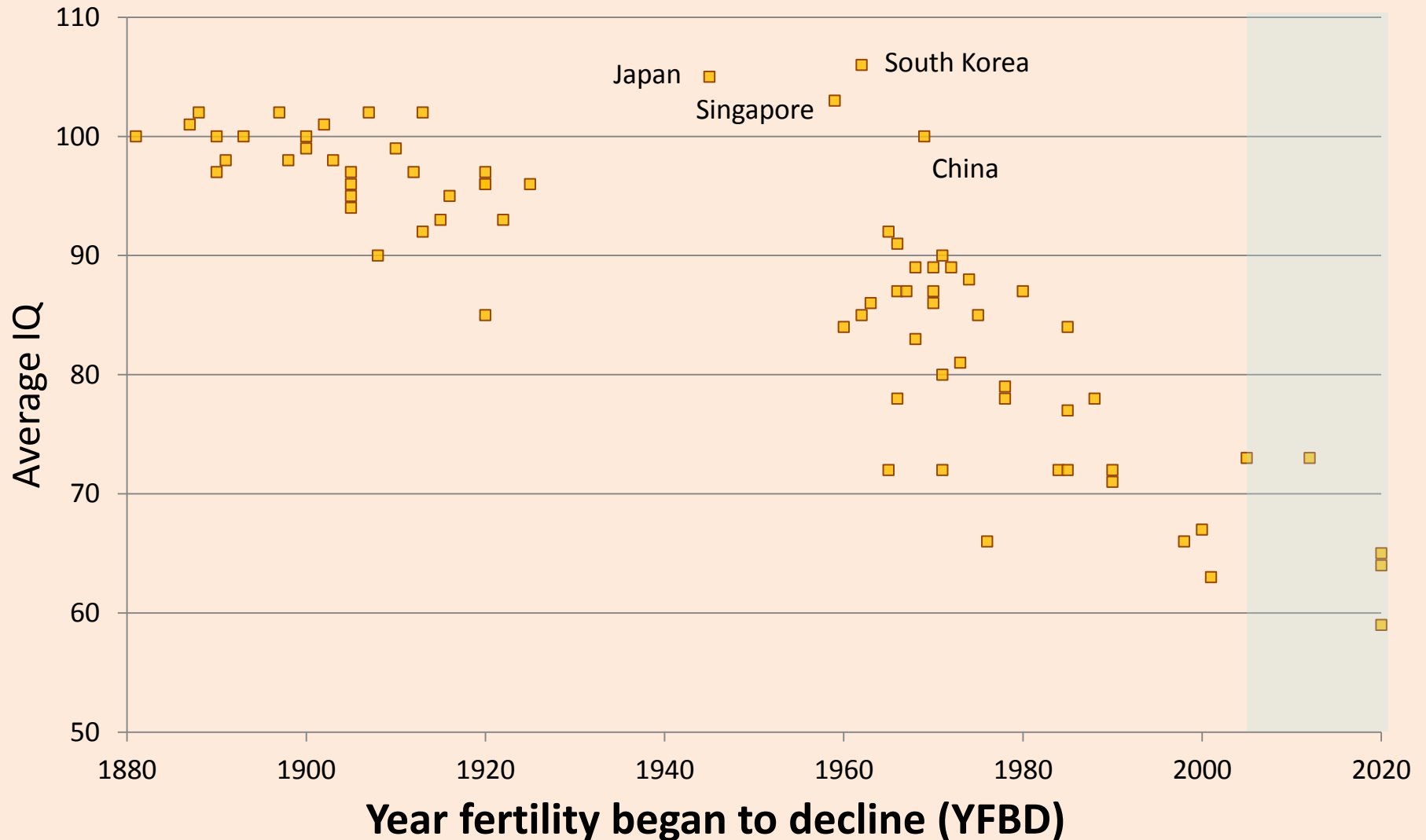
Behaviour of children:

Country mean agreement with the statement **“One of my main goals in life has been to make my parents proud.”**



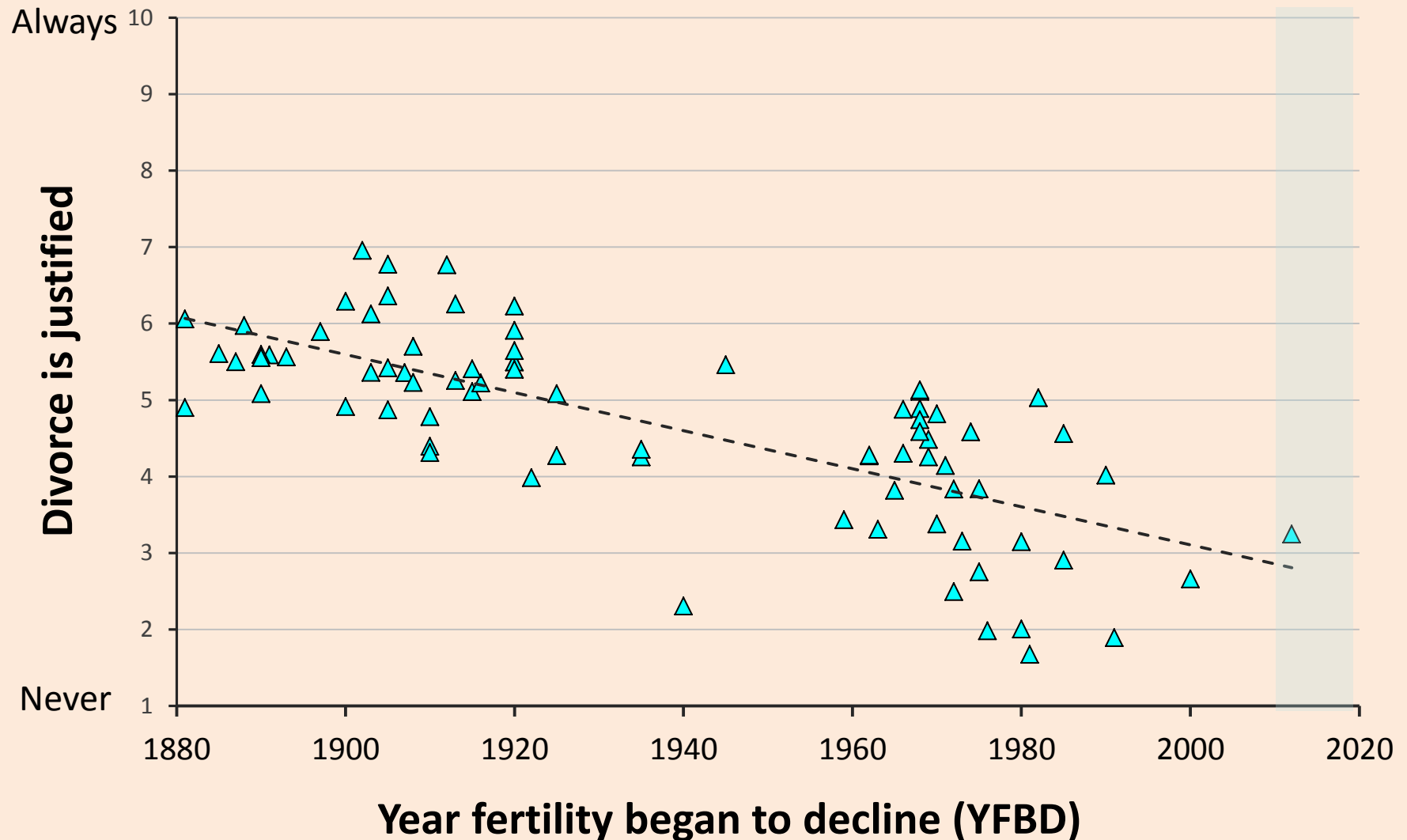
“Country mean IQ”

Success in the so-called “culture neutral” IQ tests also appears to be correlated with YFBD



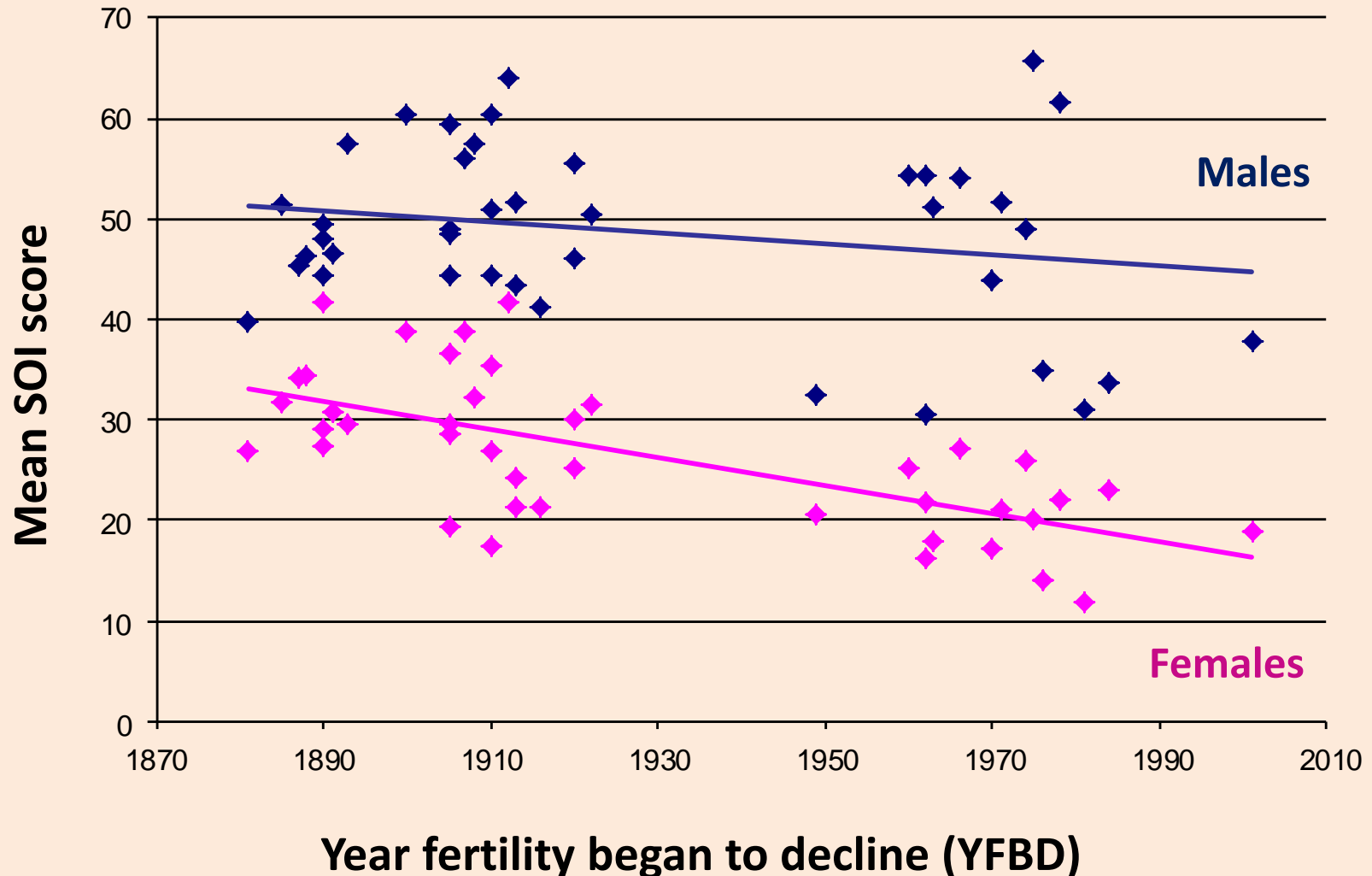
Acceptance of divorce

Country mean responses to a WVS question asking respondents to choose on a 10 point scale between “always” and “never”.



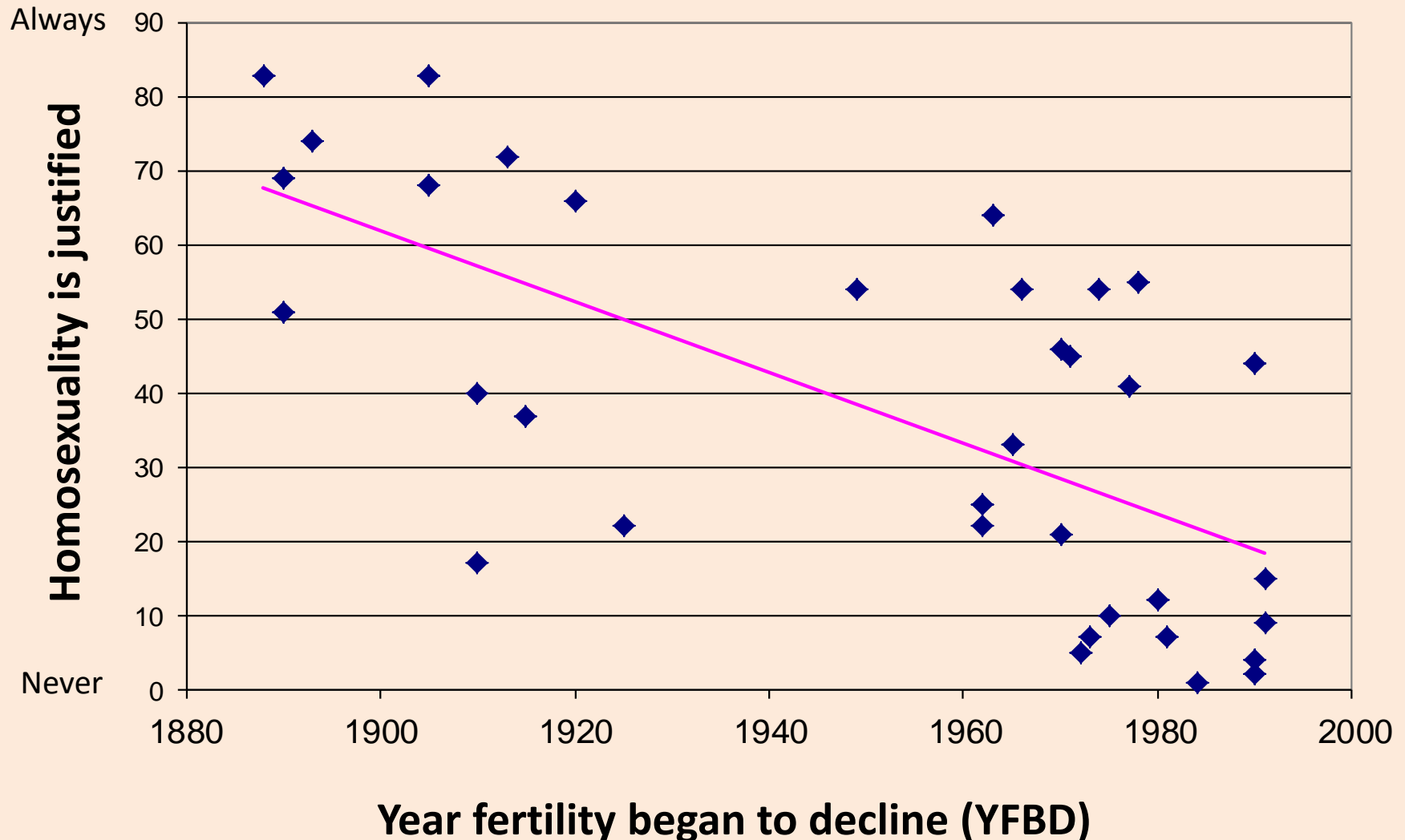
University students' openness to casual sex

“Sociosexual orientation index” questionnaire asks students about how well they need to know someone engaging in sex



Acceptance of same sex relationships

Country mean responses to a WVS question asking respondents to choose on a 10 point scale between “always” and “never”.



Conclusion:

The year fertility began to decline in a country predicts mean acceptance of other modern values. This supports the idea that more recent changes are the continued response to the social reconstruction that happened generations ago.

Plan

1. The most important cultural change of modernization
2. Inheritance and identity
3. Another lesson from biological evolution.
4. Becoming more and more modern.
5. A natural experiment – the Amish

The Amish

In 17th and 18th centuries, members of “Anabaptist” sects migrated to North America fleeing religious persecution in Europe.



In the 1860s, some Amish communities voted to remain locally governed and keep “plain” traditional ways. The others gradually merged into the wider population.

In 1912, Amish communities established the practice of choosing the specific items of modern technology they would accept and reject.

What technology is accepted varies from community to community but all aim to reject technology encourages integration with the wider population and threatens their local family-based social structure.

The Amish

They have chosen to reject:

- Owning automobiles
- Seeing television or movies
- Telephoning except for business or emergency
- Schooling beyond age 14
- Close friendships with non-Amish
- Living in cities or towns

Thus they have not experienced the
Great Social Reconstruction



The Amish

They have chosen to reject:

- Owning automobiles
- Seeing television or movies
- Telephoning except for business or emergency
- Schooling beyond age 14
- Close friendships with non-Amish
- Living in cities or towns

Thus they have not experienced the
Great Social Reconstruction



BUT they are “modern” in
other ways

- They are prosperous
- They own successful farming and manufacturing businesses
- They take advantage of the latest healthcare technology and enjoy much better health than the average American.

The Amish...

... have not even begun to accumulate the cultural changes associated with modernization.

- Families of 9 children are common
- Gender roles are “traditional”
- Children are disciplined and expected to perform work commensurate with their age and skill level.



Conclusion:

The Amish avoid experiencing the Great Social Reconstruction and have not experienced the cultural changes associated with modernization even though they enjoy many of the benefits of modern technology.

General Conclusion:

A biological perspective suggests that humans stopped competing for fitness when social reconstruction reduced inheritance of cultural information from family. This change triggered a cultural evolutionary process that continues to drive cultural change.

THE END

Спасибо за ваше
ВНИМАНИЕ

Lesley Newson

(lesleynewson@gmail.com)

