

'When I was a child, I spoke as a child,
I thought as a child and I acted as a child...'

Are modern children growing up too fast?

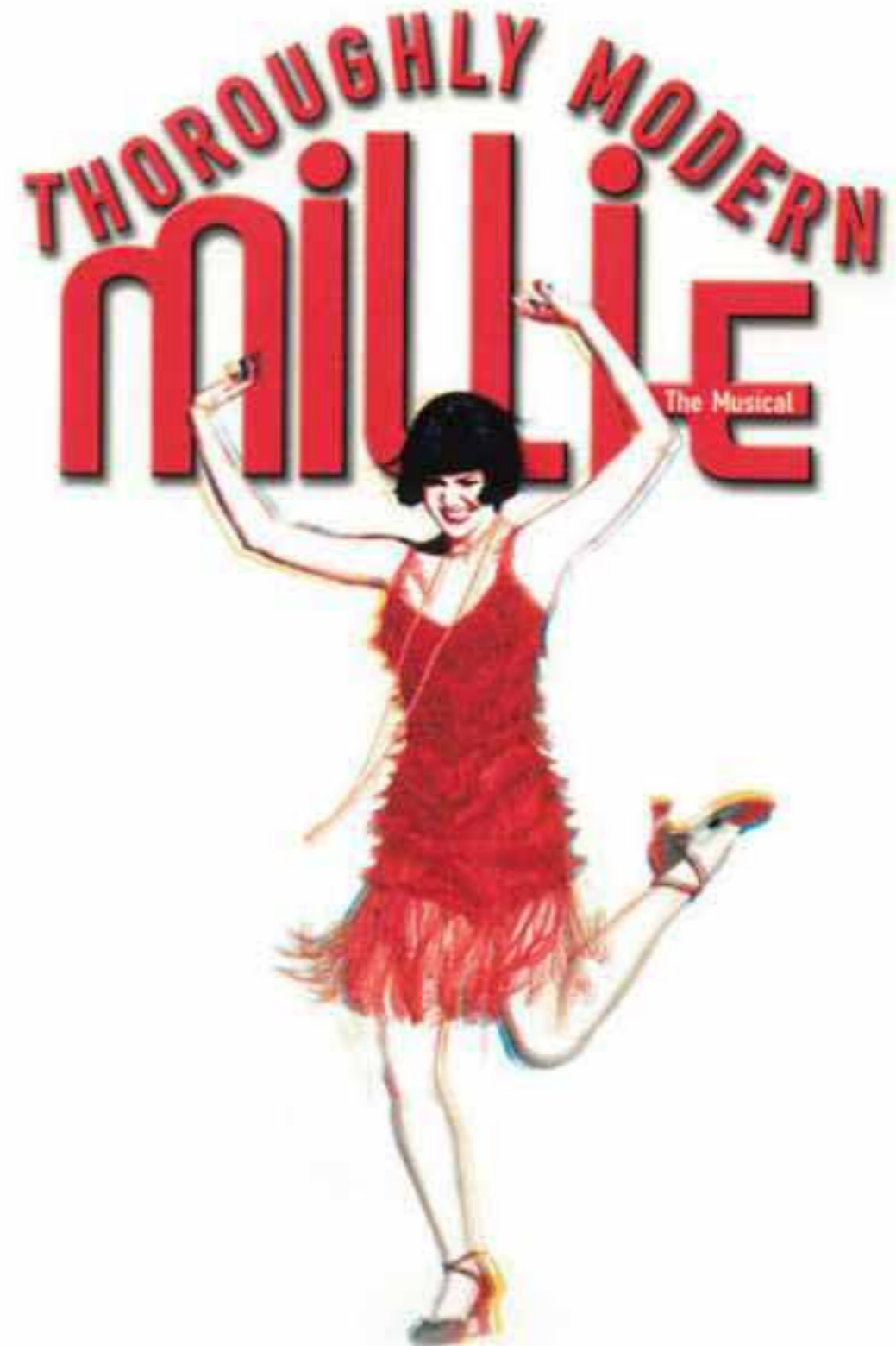


Professor Keith Kendrick



Are modern children growing up too fast?

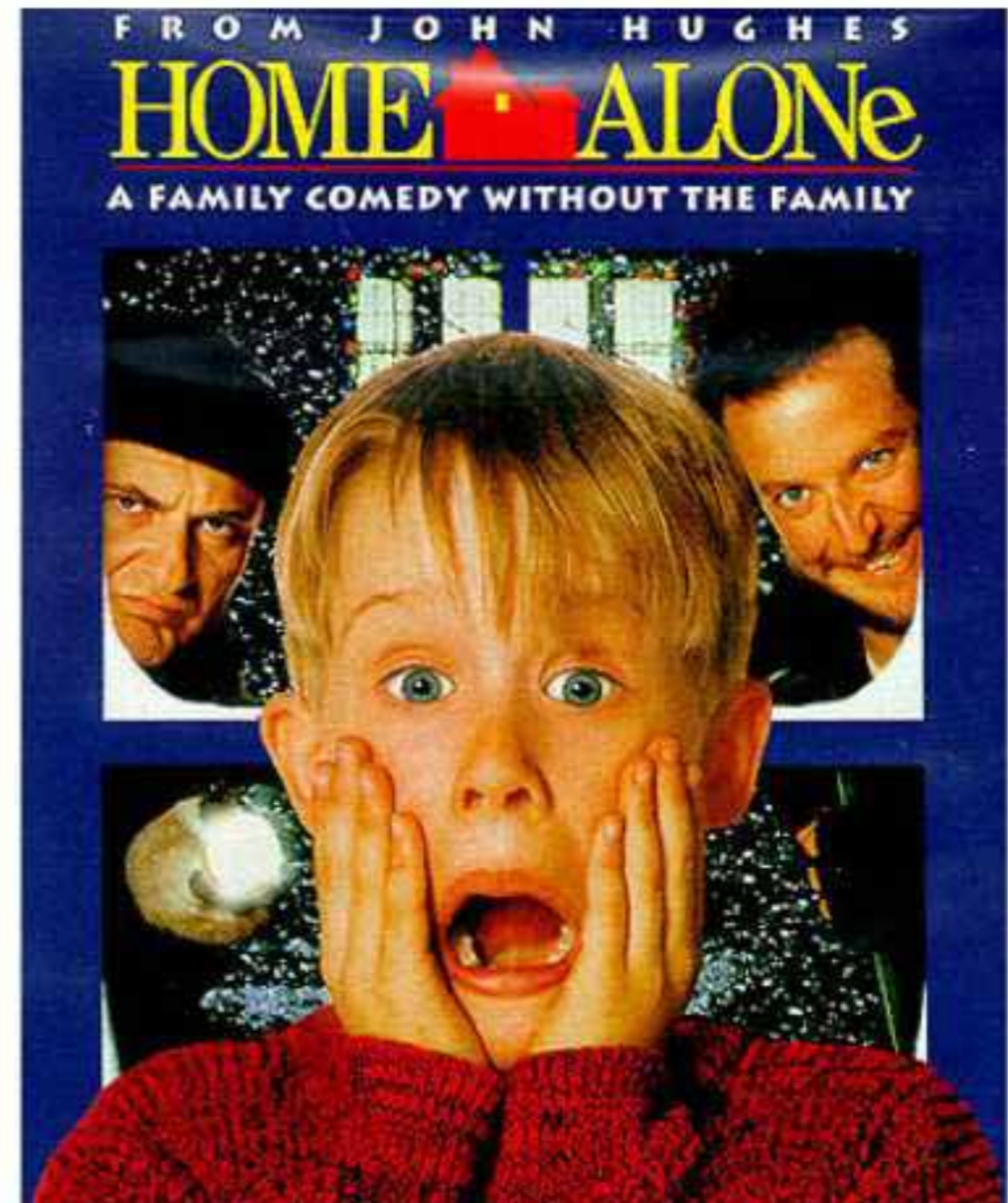
Modern society values fast attainment of autonomy



Are modern children growing up too fast?

Modern society values fast attainment of autonomy

Fewer parents can afford to spend time at home with their children



Are modern children growing up too fast?

Modern society values fast attainment of autonomy

Fewer parents can afford to spend time at home with their children

Birth rates are dropping so there are fewer siblings to interact with

I'M AN
ONLY CHILD..
LET'S KEEP IT
THAT WAY!

Are modern children growing up too fast?

Most UK children go to primary school by the time they are 4 years old...



Are modern children growing up too fast?

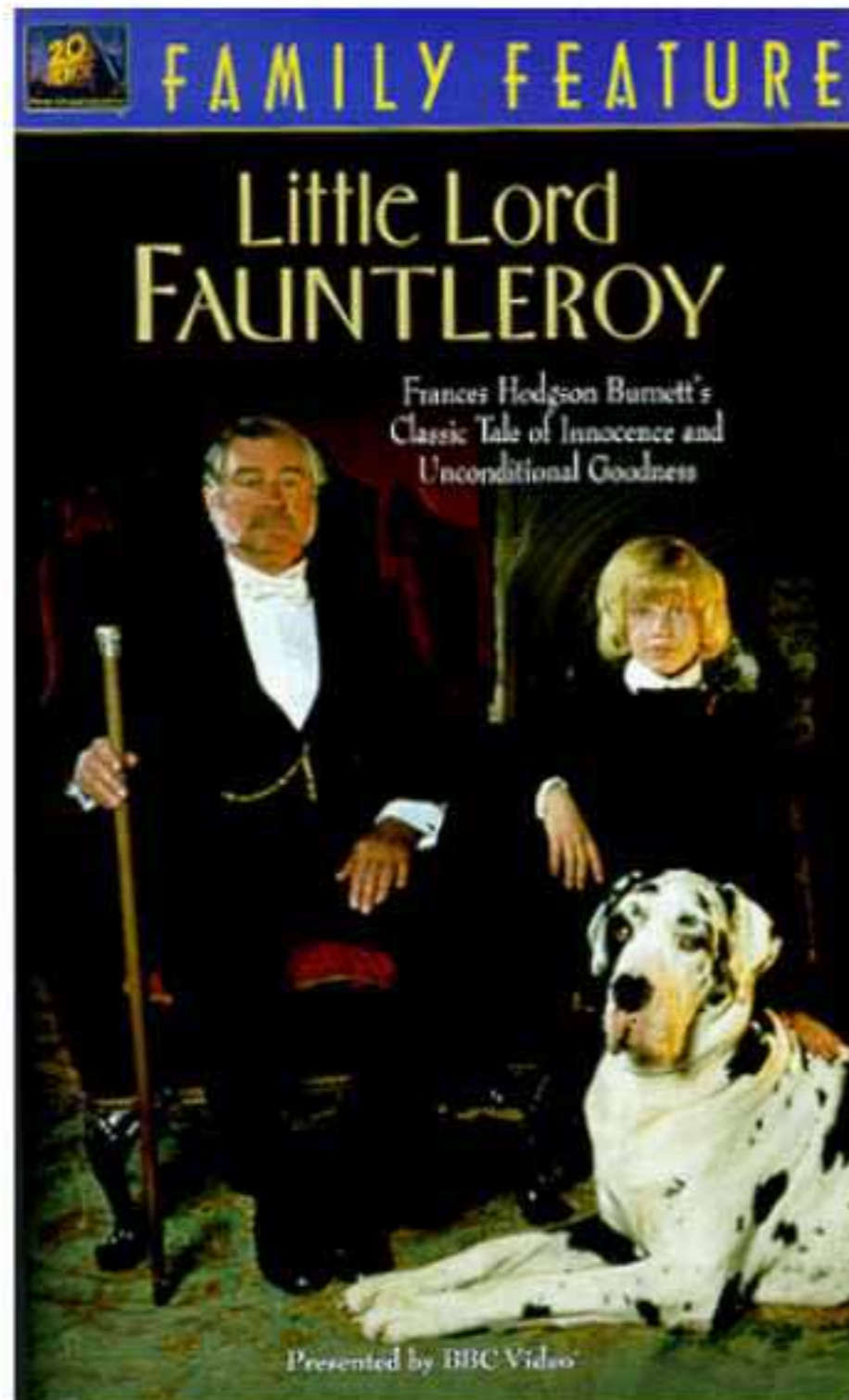
Most UK children go to primary school by the time they are 4 years old...

...and face a long series of formal educational tests and challenges



Are modern children growing up too fast?

The cult of the little adult



Are modern children growing up too fast?

The cult of the little adult



CARS

VANS

OWNERS

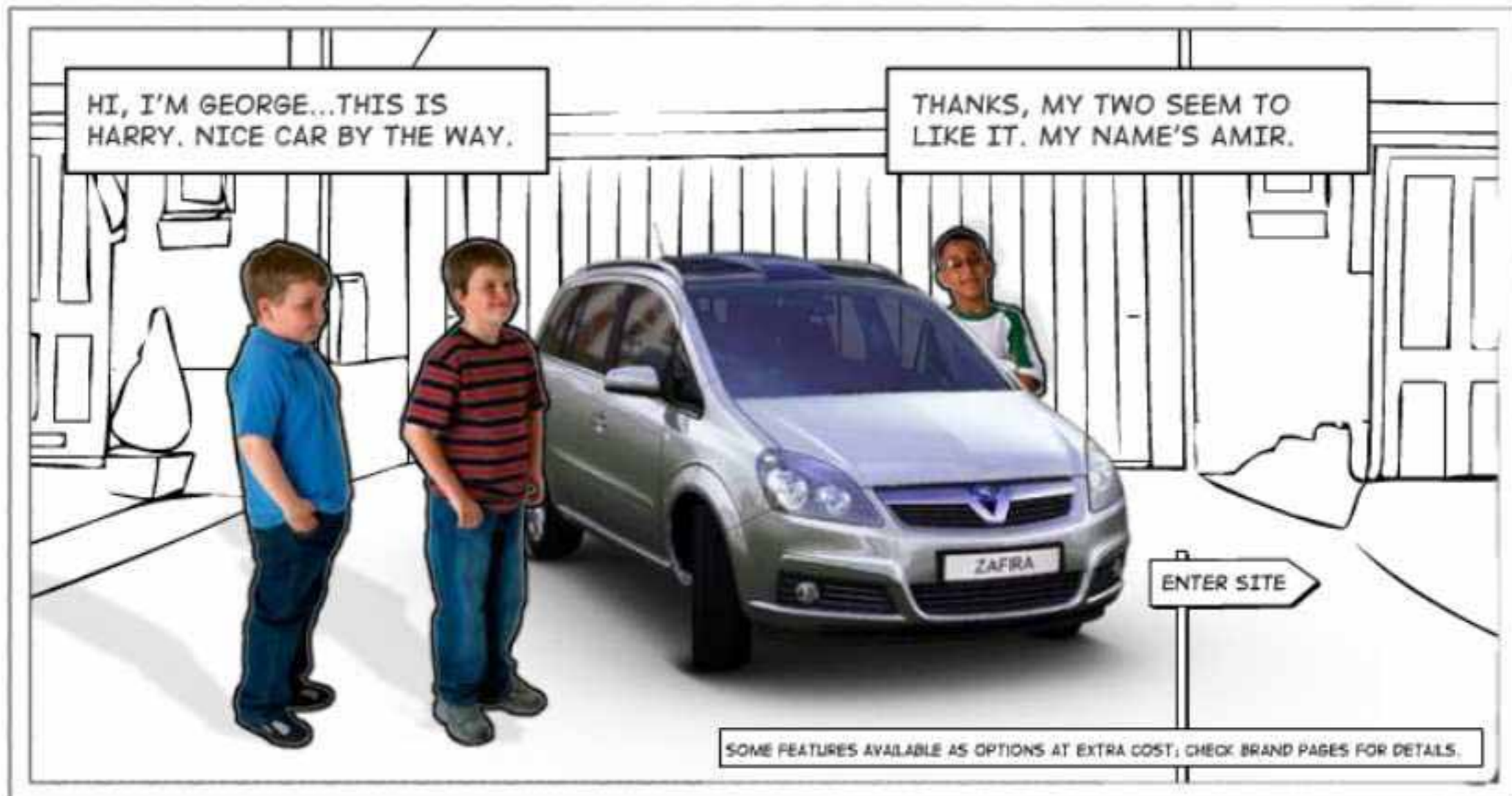
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Are modern children growing up too fast?

Does growing up faster actually have any negative consequence?



Are modern children growing up too fast?

Does growing up faster actually have any negative consequence?

Are current adolescents disaffected with society and its values?



Are modern children growing up too fast?

Just symptomatic of the standard generation gap?

STAHLER.
©THE CINCINNATI POST 00



Is childhood an impatient waiting phase?

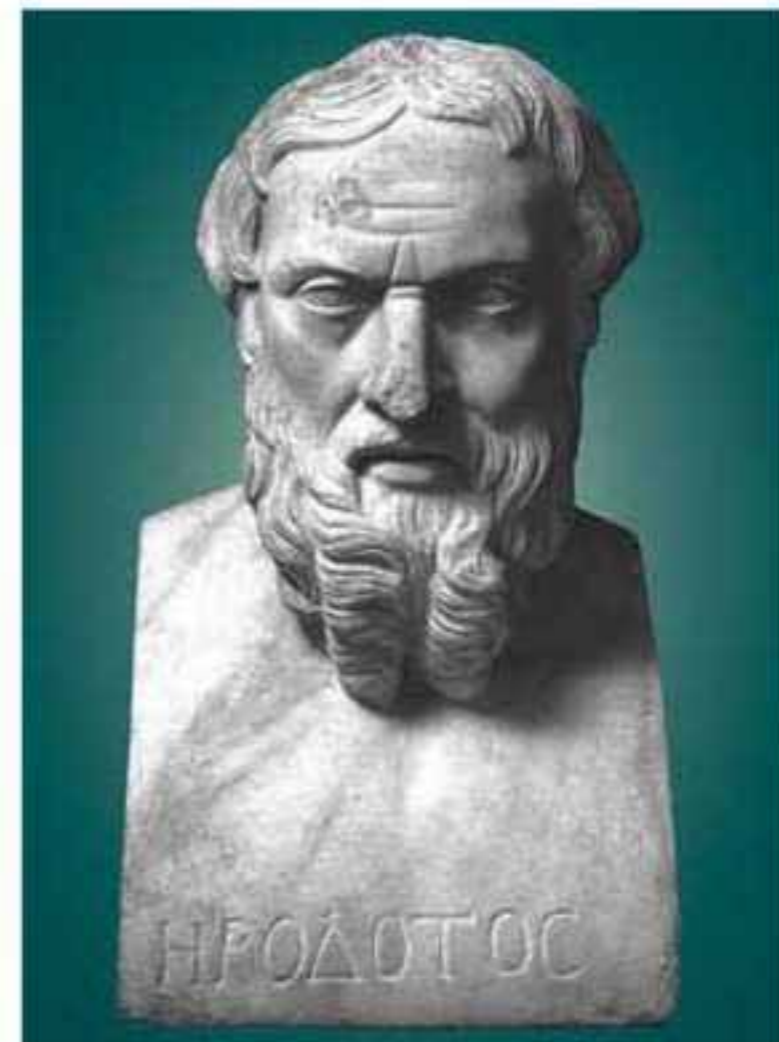
When I was a child I spoke as a child I understood
as a child I thought as a child; but when I became
a man I put away childish things
I Cor. xiii. 11.



Is childhood an impatient waiting phase?

If a man insisted always on being serious, and never allowed himself a bit of fun and relaxation, he would go mad or become unstable without knowing it

Herodotus



Is childhood an impatient waiting phase?

Hors d'oeuvres have always a pathetic interest for me; they remind me of one's childhood that one goes through wondering what the next course is going to be like - and during the rest of the menu one wishes one had eaten more of the hors d'oeuvres

Hector Hugh Munro



What is childhood?

Childhood is essential preparation for adulthood

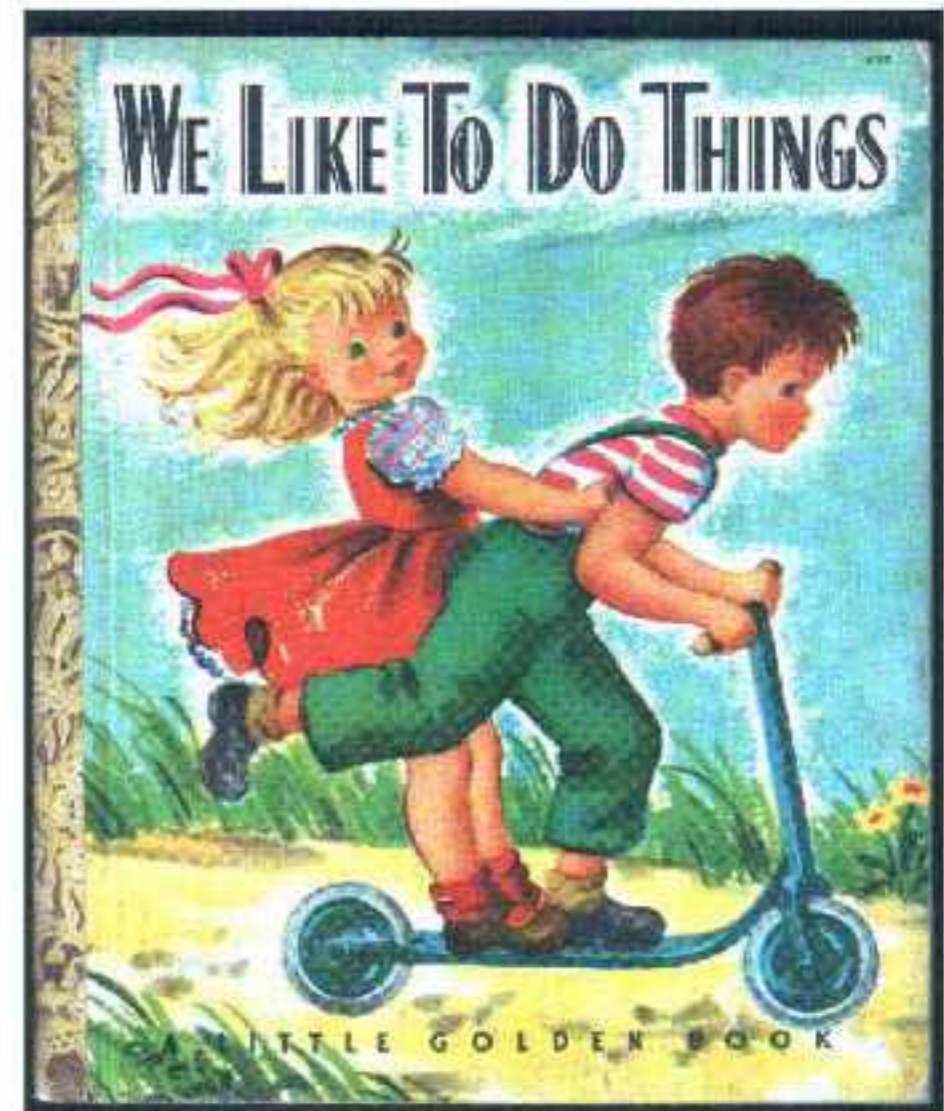


What is childhood?

What childhood pursuits are important for physical, mental and social development?

Are modern children being forced to grow up too fast?

What impact is this having now and in the future?

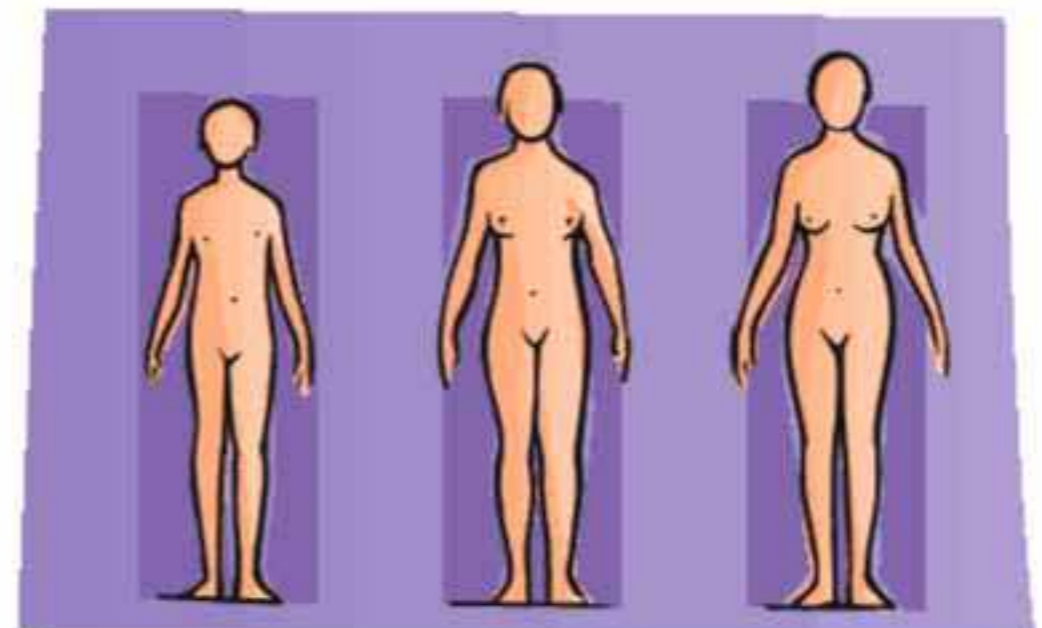
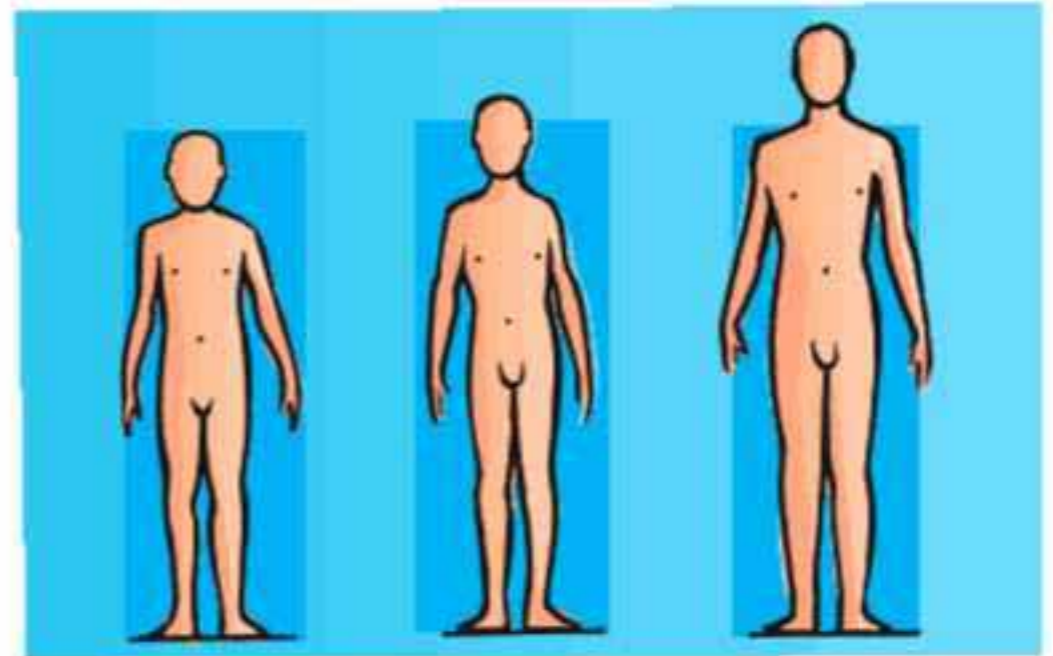


Pursuits and experience

What childhood pursuits and experiences are important for optimal physical, mental and social development?

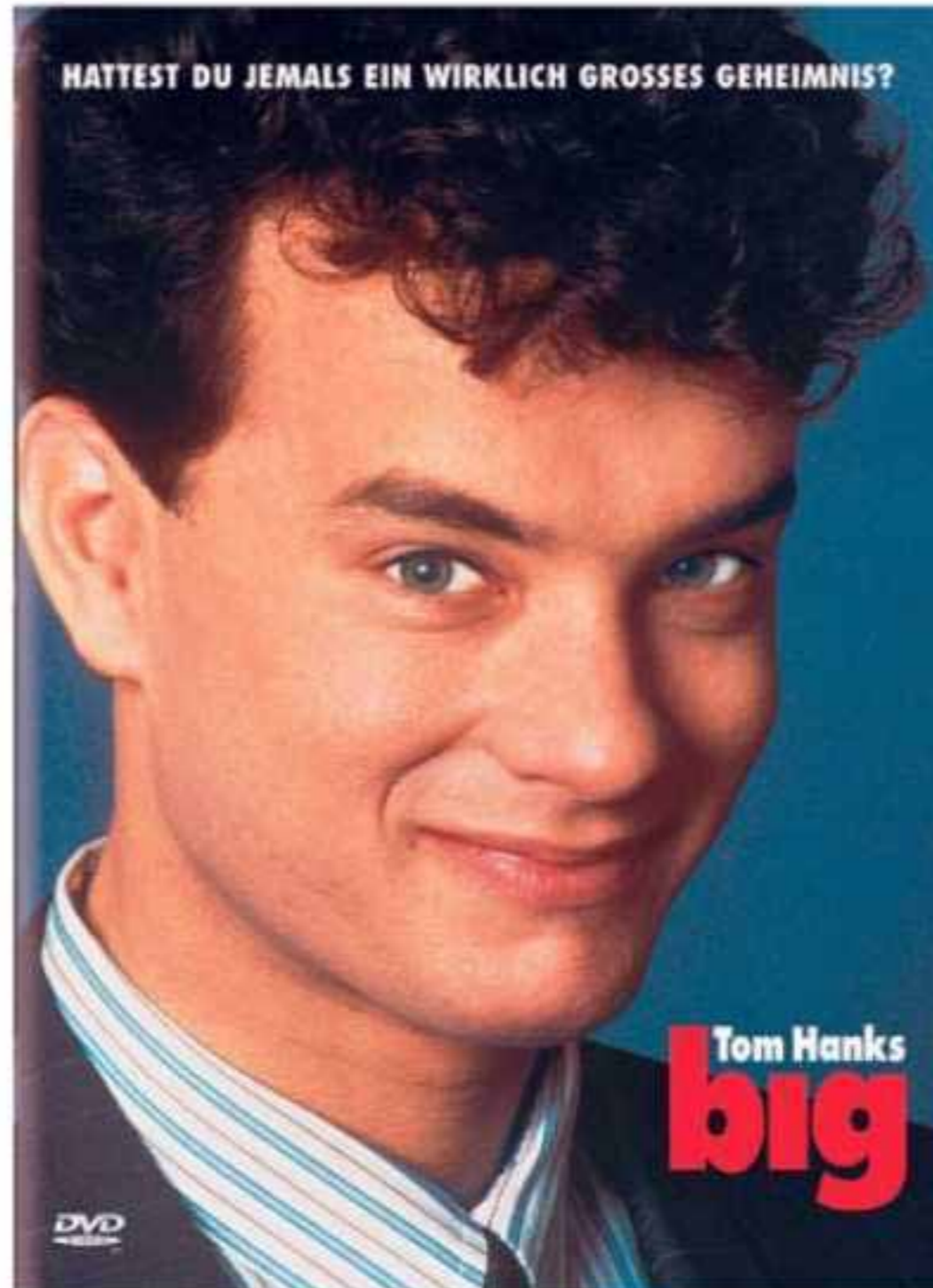
Human brain maturation continues from birth until well into the late teens

A child has to help this process through appropriate learning



Pursuits and experience

The work of childhood is PLAY



The importance of play

Fundamental behaviour of juveniles in all species of birds and mammals



The importance of play

Fundamental behaviour of juveniles in all species of birds and mammals

Play and brain development:

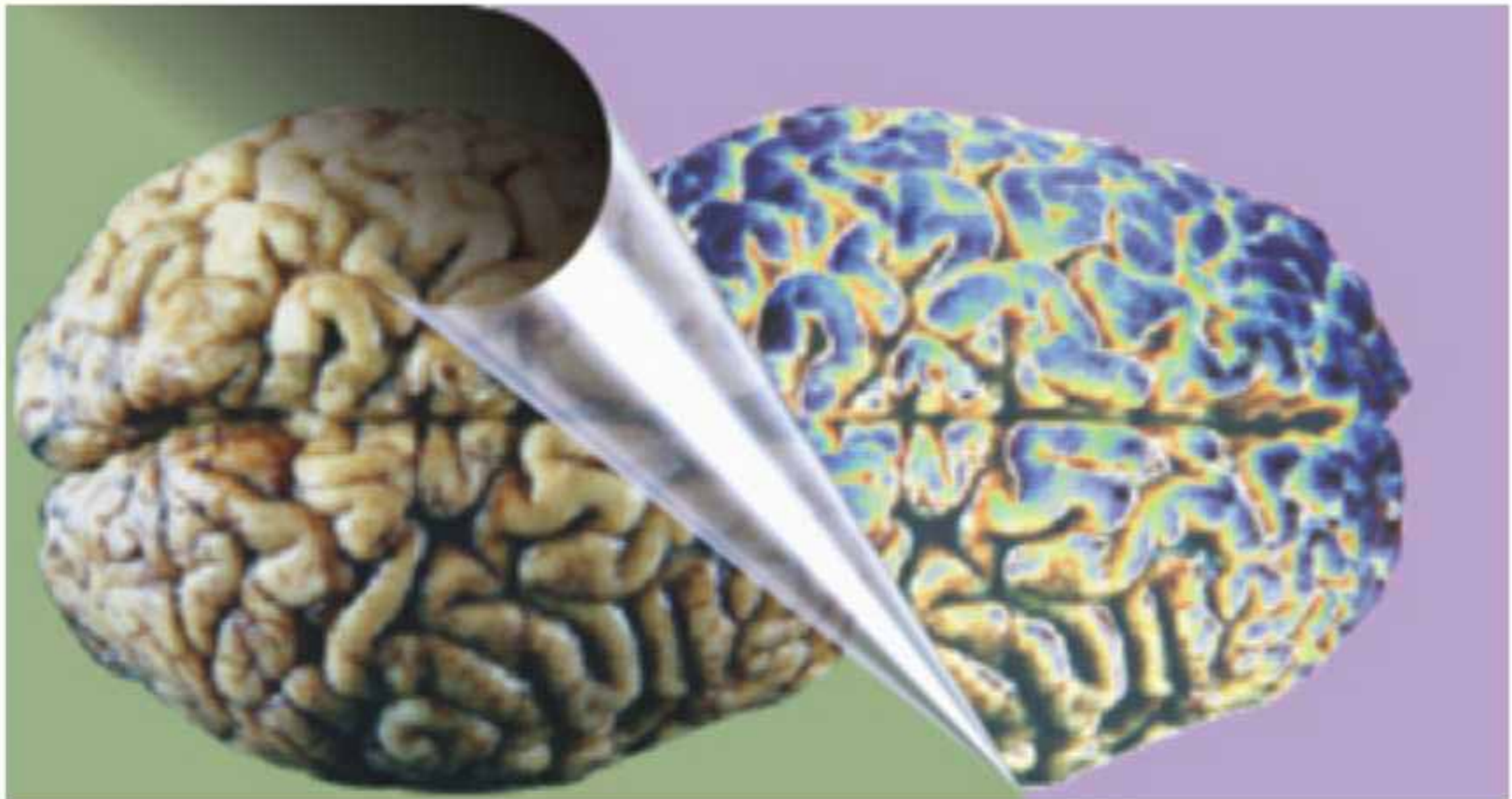
60% of human genes are involved in brain development



The importance of play

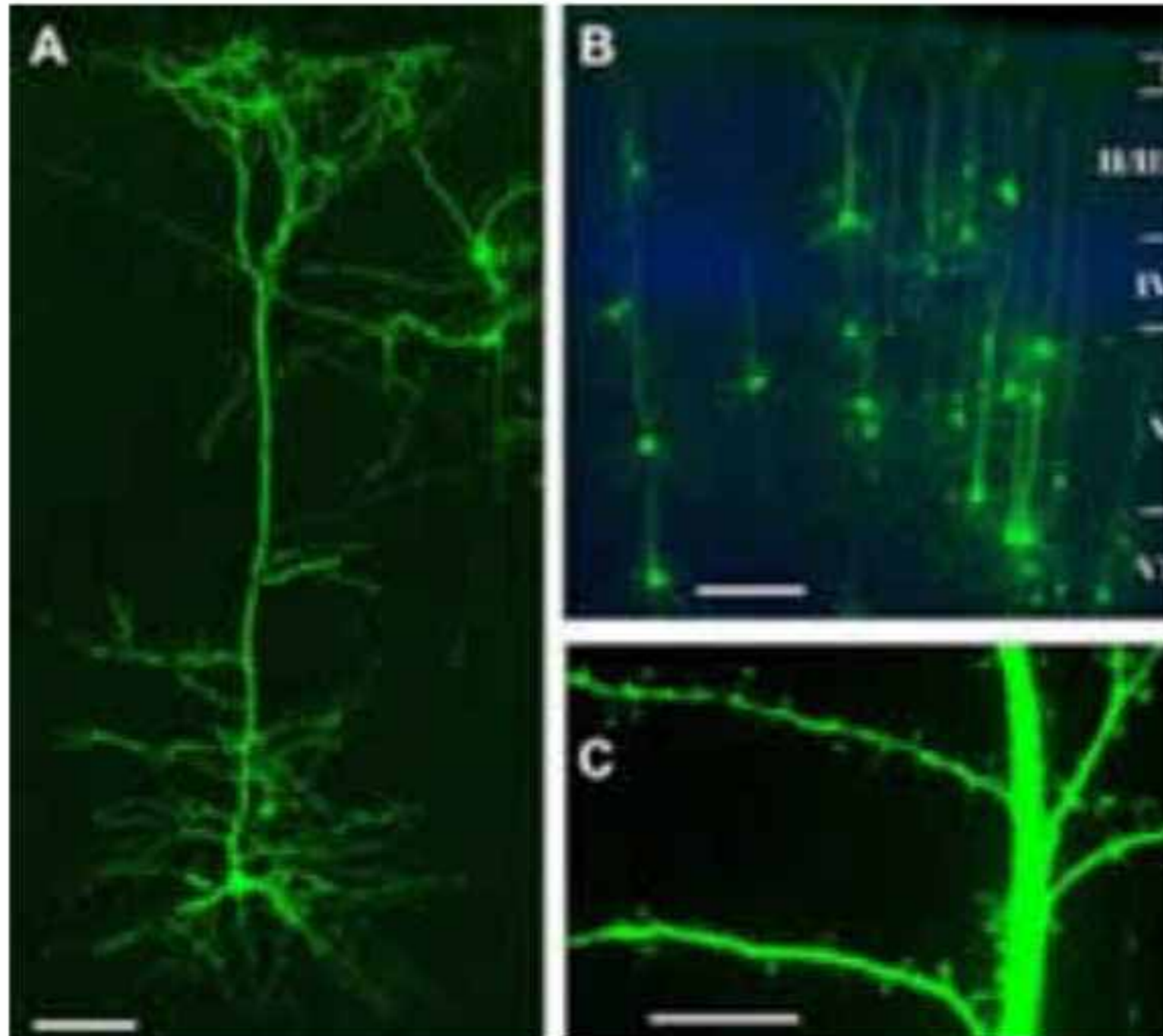
The brain is only about 25% complete at birth

Play helps construct your brain



Birth to 1 year - Brain

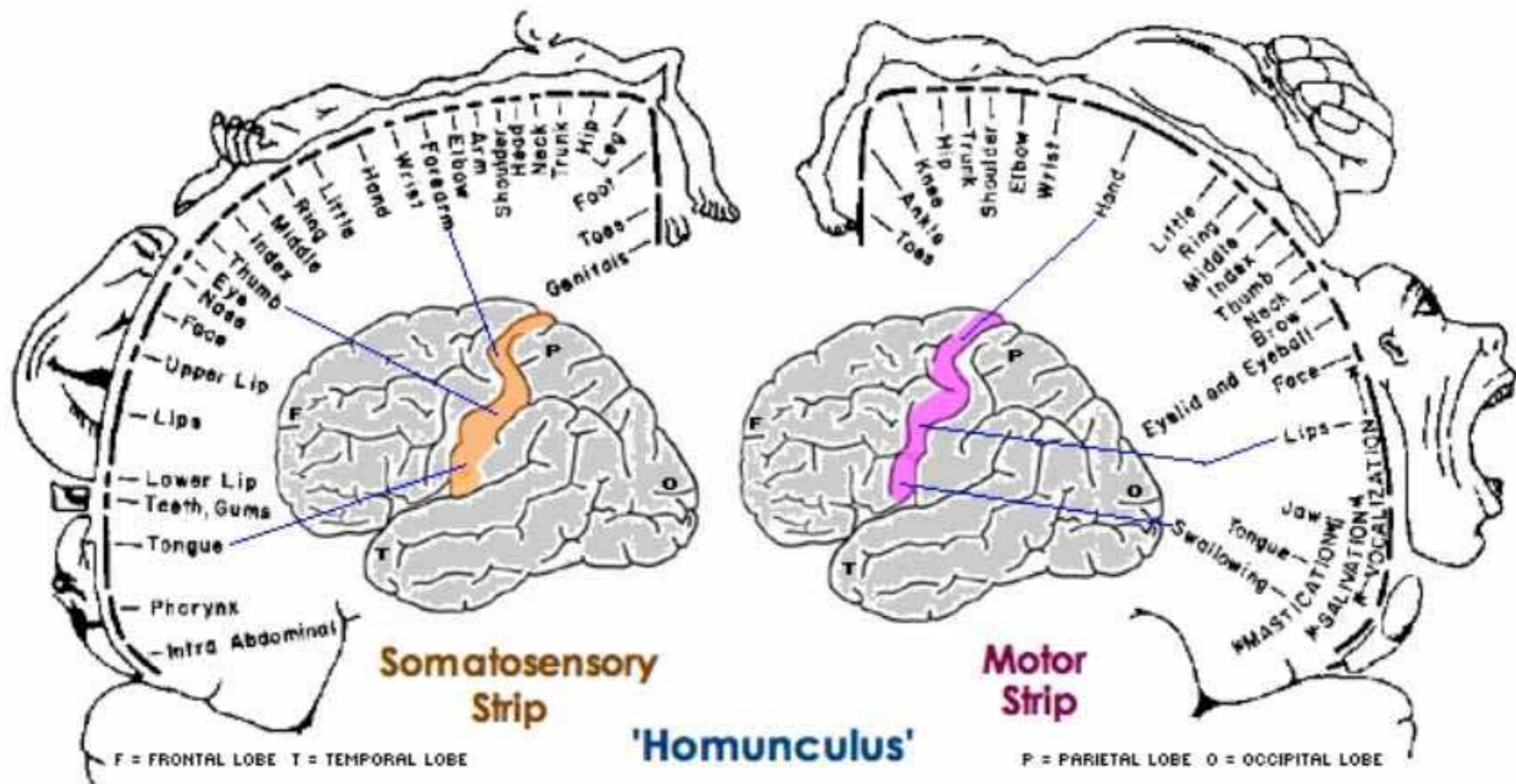
Making connections between cells (synaptogenesis)



Birth to 1 year - Brain

Making connections between cells (synaptogenesis)

Sensorimotor areas mature in the first 2-3 months



Birth to 1 year - Brain

Making connections between cells (synaptogenesis)

Sensorimotor areas mature in the first 2-3 months



Birth to 1 year - Brain

Making connections between cells (synaptogenesis)

Sensorimotor areas mature in the first 2-3 months

Visual and frontal cortices also develop rapidly



Birth to 1 year - Play

Repetitive practice of movement and sensory systems



Birth to 1 year - Play

Repetitive practice of movement and sensory systems

Interest in patterns, colours, sounds, textures, grasping objects and performing simple actions with them

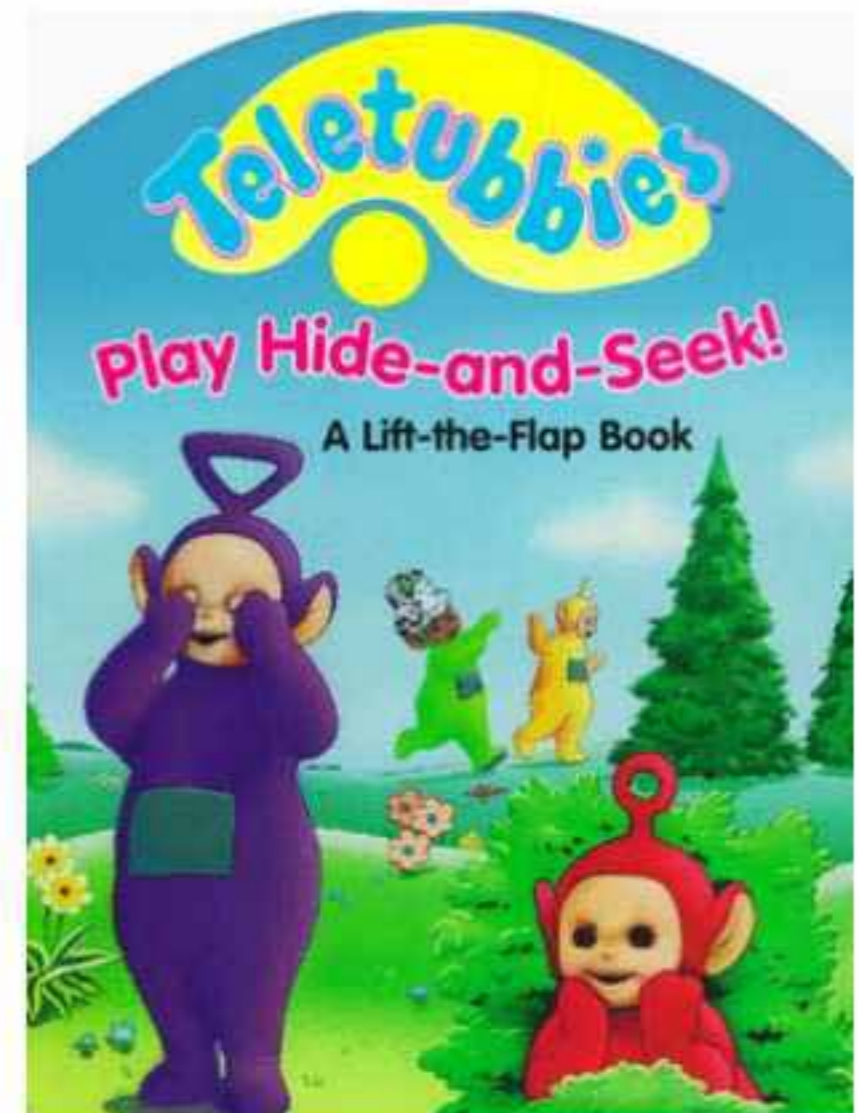


Birth to 1 year - Play

Repetitive practice of movement and sensory systems

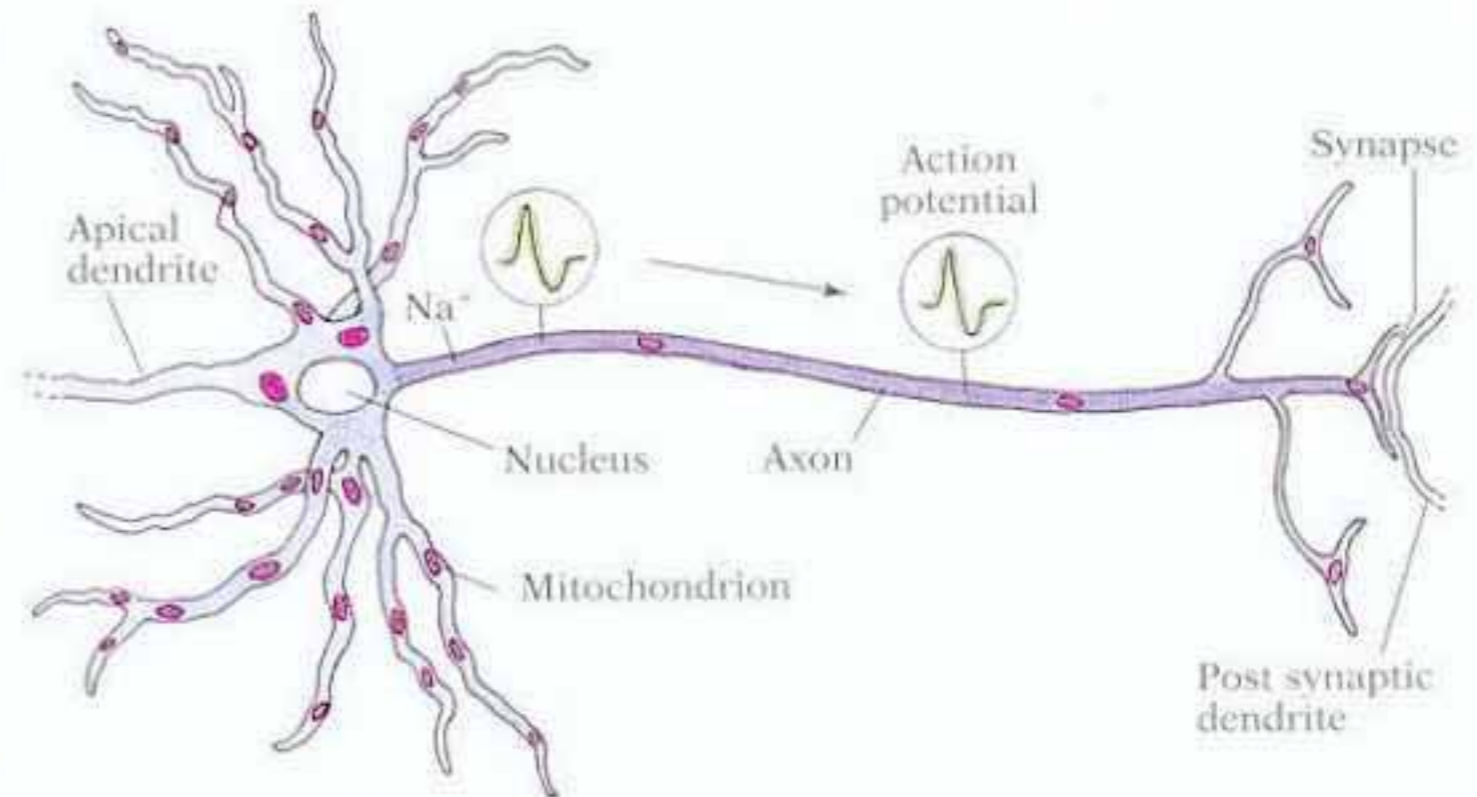
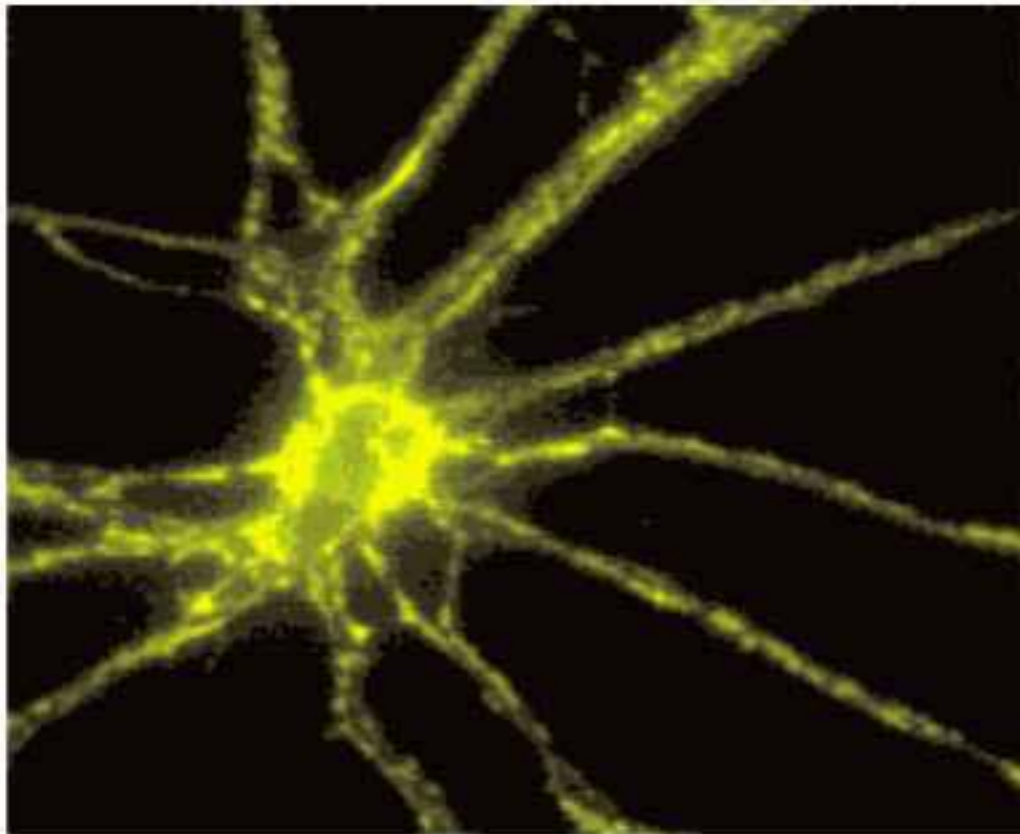
Interest in patterns, colours, sounds, textures, grasping objects and performing simple actions with them

Social aspects of play develop



2-3 years old - Brain

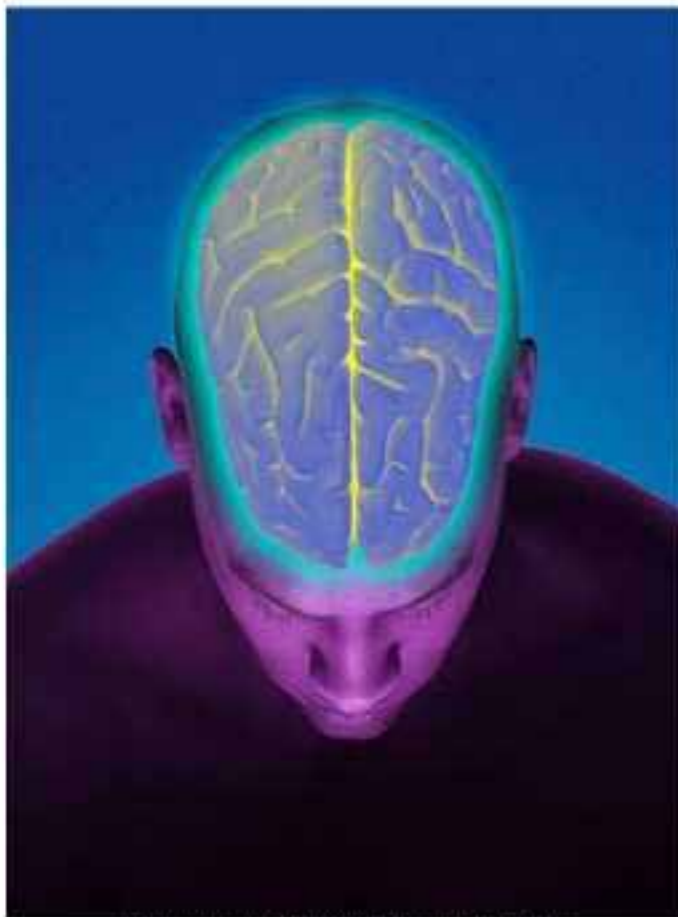
Brain synapses increase to around 1,000 trillion



2-3 years old - Brain

Brain synapses increase to around 1,000 trillion

The brain is twice as active as that of an adult



100-022838 © Bob Anderson / Masterfile www.masterfile.com

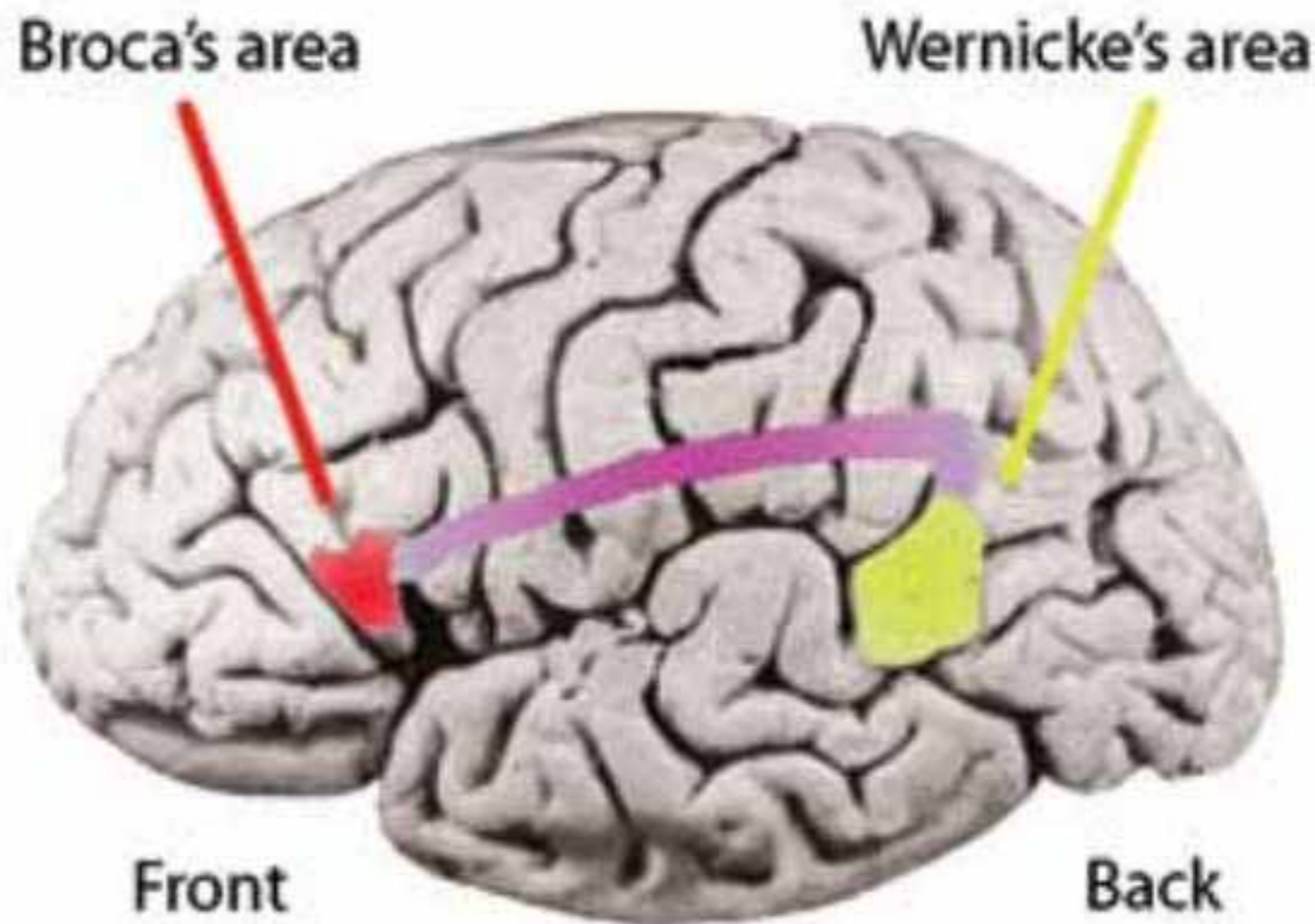


2-3 years old - Brain

Brain synapses increase to around 1,000 trillion

The brain is twice as active as that of an adult

Specialised language areas develop



2-3 years old - Brain

Links form between the frontal cortex and limbic system



2-3 years old - Play

Pretend play develops indicating symbolic thought

Transform objects and actions in their play



2-3 years old - Play

Pretend play develops indicating symbolic thought

Transform objects and actions in their play

Language practice with rhymes and songs and 'silly' sounds



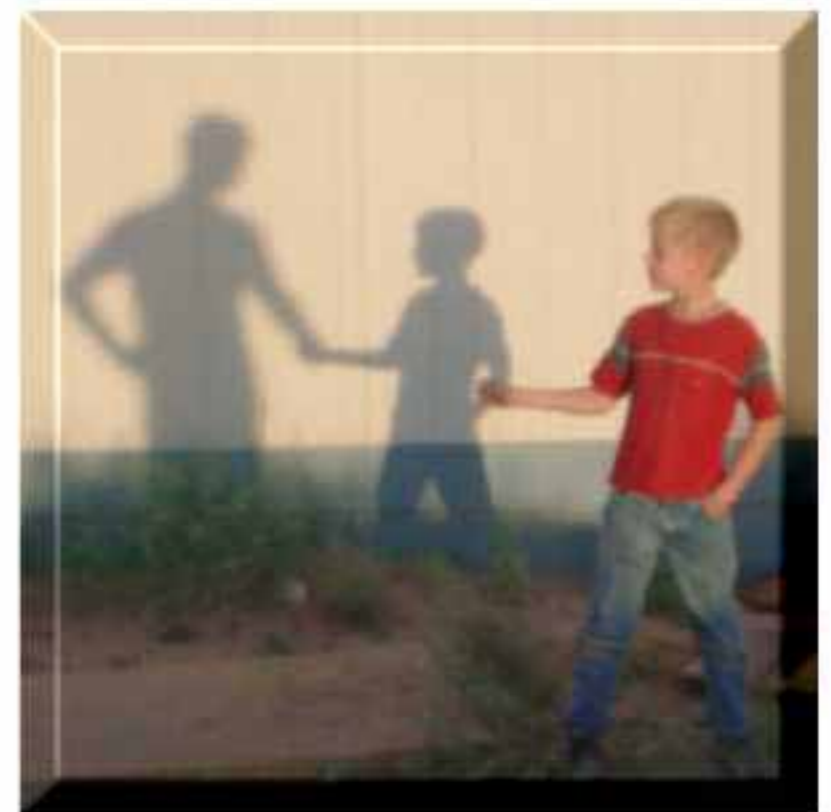
2-3 years old - Play

Pretend play develops indicating symbolic thought

Transform objects and actions in their play

Language practice with rhymes and songs and 'silly' sounds

Pretend characters that can talk, express emotions and perform actions



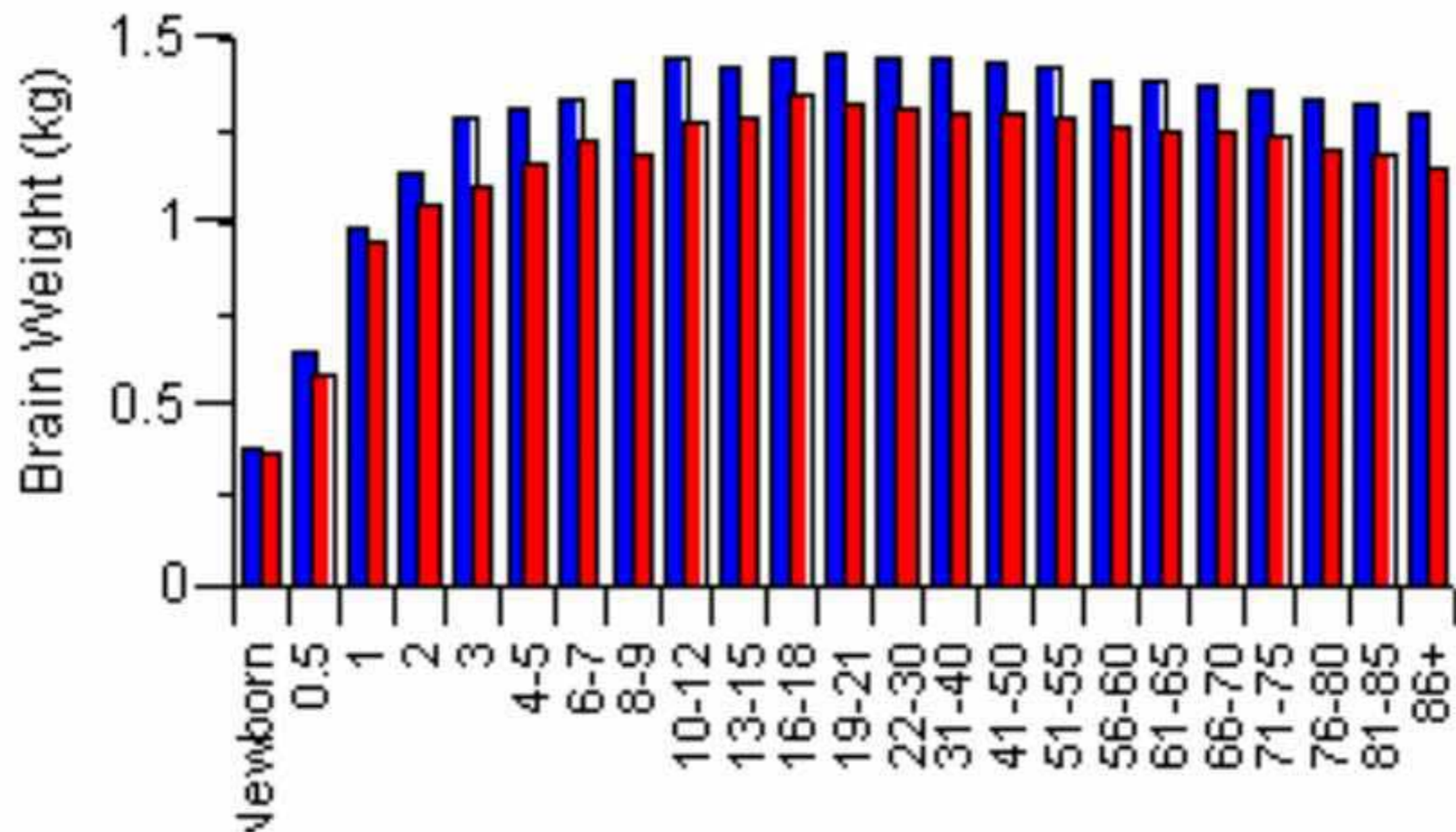
2-3 years old - Play

Develop self-recognition and the beginnings of theory of mind



3-8 years old – Brain

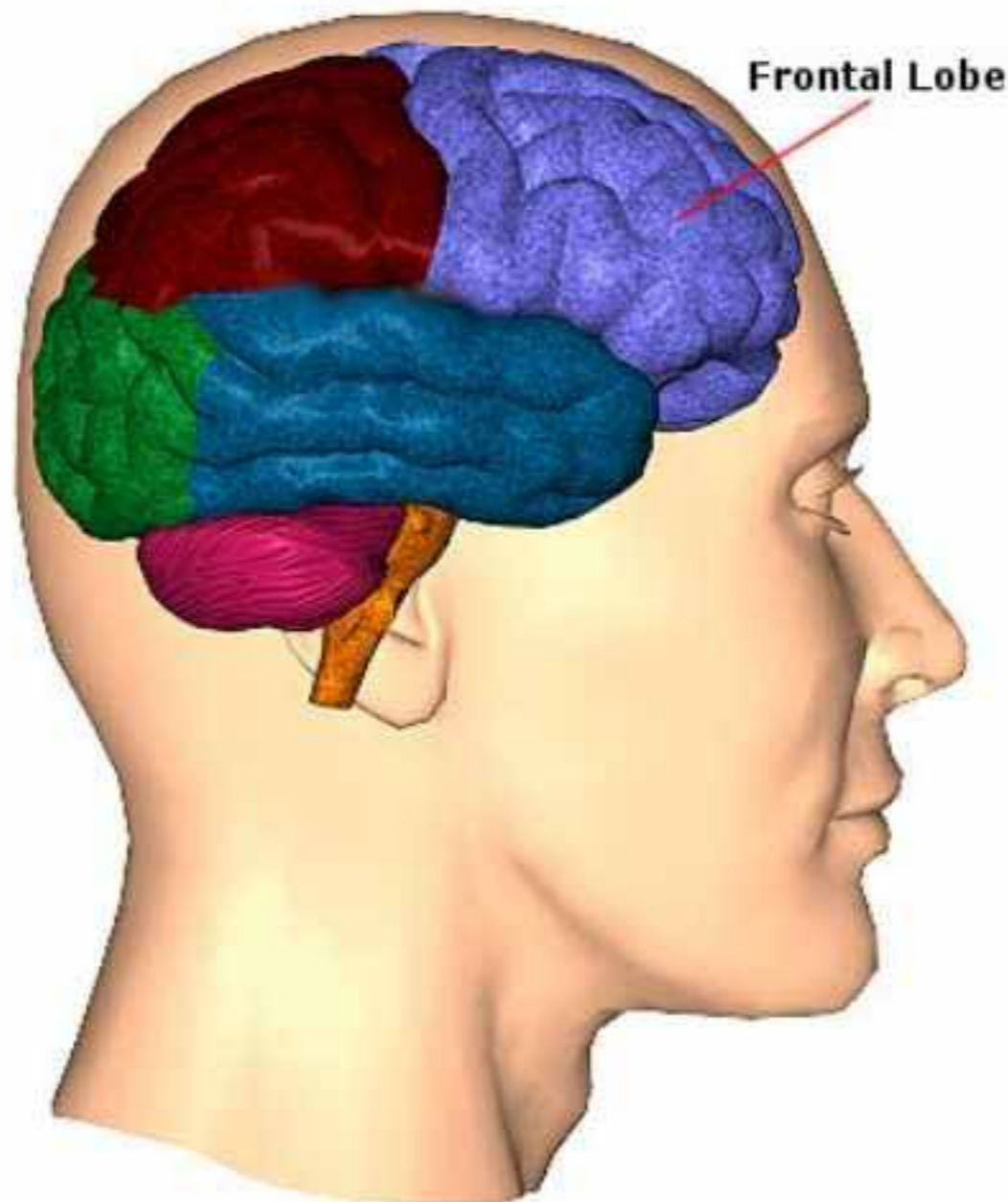
The brain gets to 90% of its adult weight by age 6



3-8 years old – Brain

The brain gets to 90% of its adult weight by age 6

Frontal lobe networks develop considerably

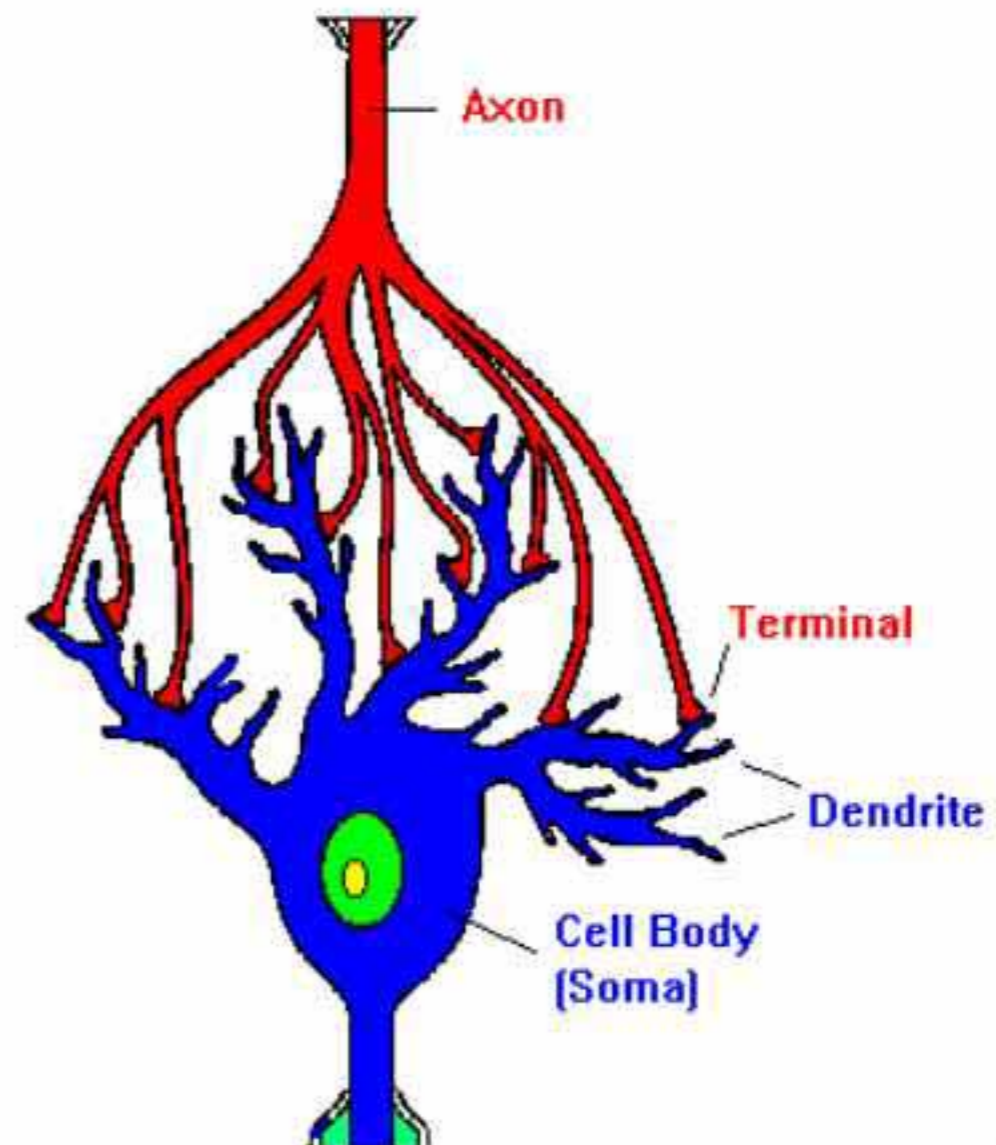


3-8 years old – Brain

The brain gets to 90% of its adult weight by age 6

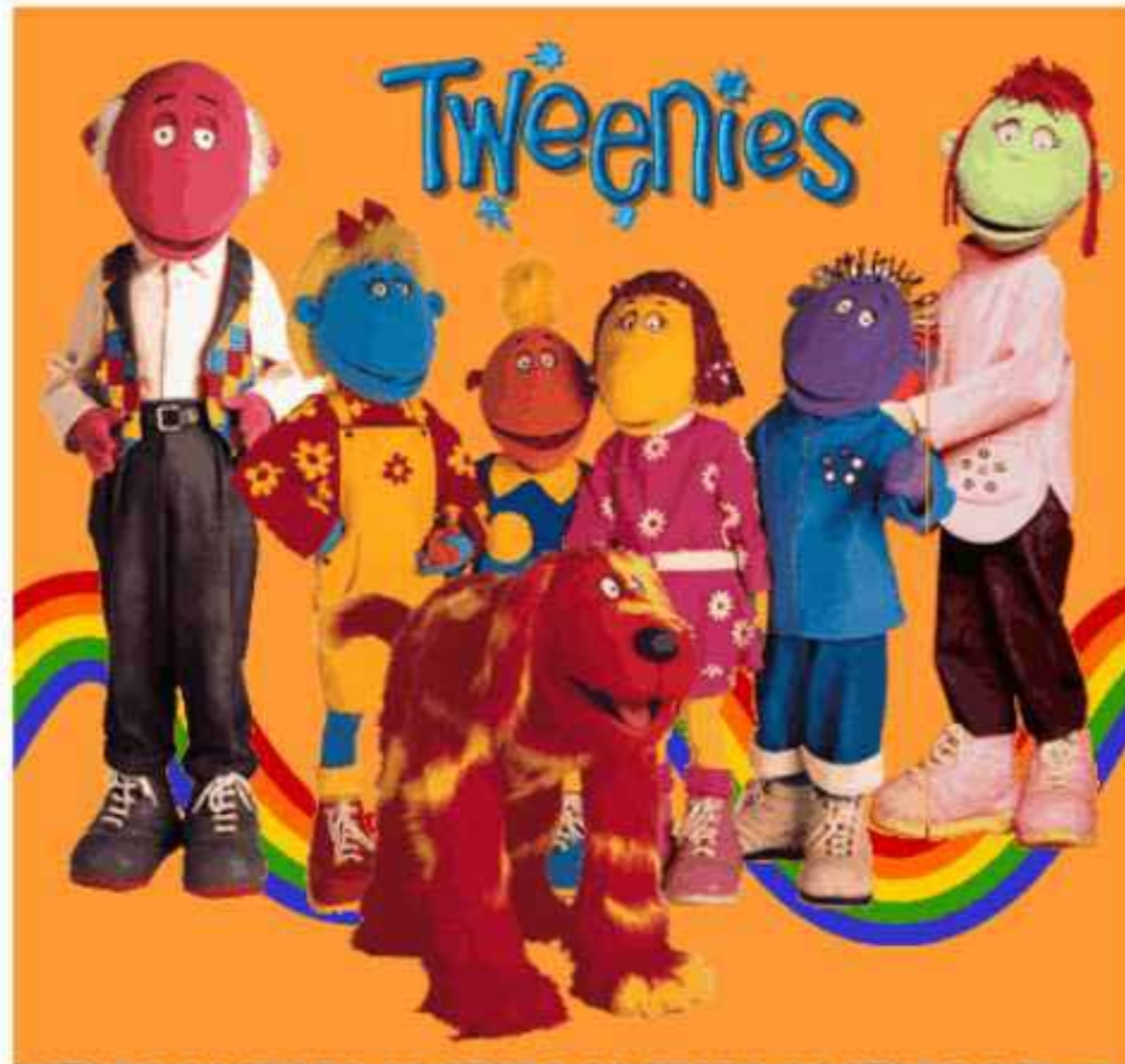
Frontal lobe networks develop considerably

Pruning of synaptic connections in brain motor and sensory systems



3-8 years old - Play

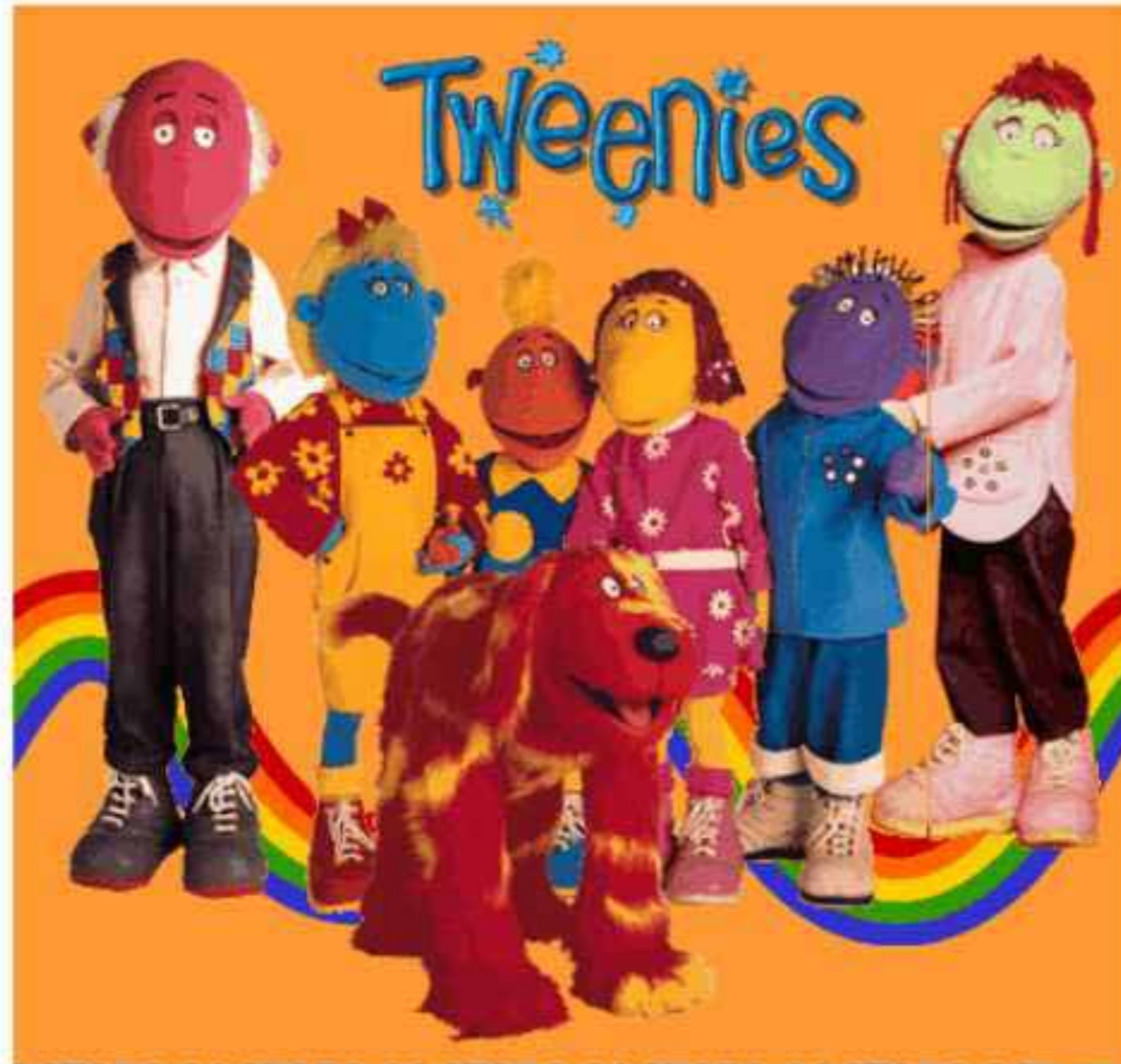
Play is at its most elaborate and extensive



3-8 years old - Play

Play is at its most elaborate and extensive

Complex theme play involving roles, scripts and costumes



3-8 years old - Play

By age 6 games with rules become important



3-8 years old - Play

By age 6 games with rules become important

Rule negotiations and discussion of fairness



3-8 years old - Play

By age 6 games with rules become important

Rule negotiations and discussion of fairness

Co-operation and competition



3-8 years old - Play

Demonstrate extensive symbolic thought capacities



3-8 years old - Play

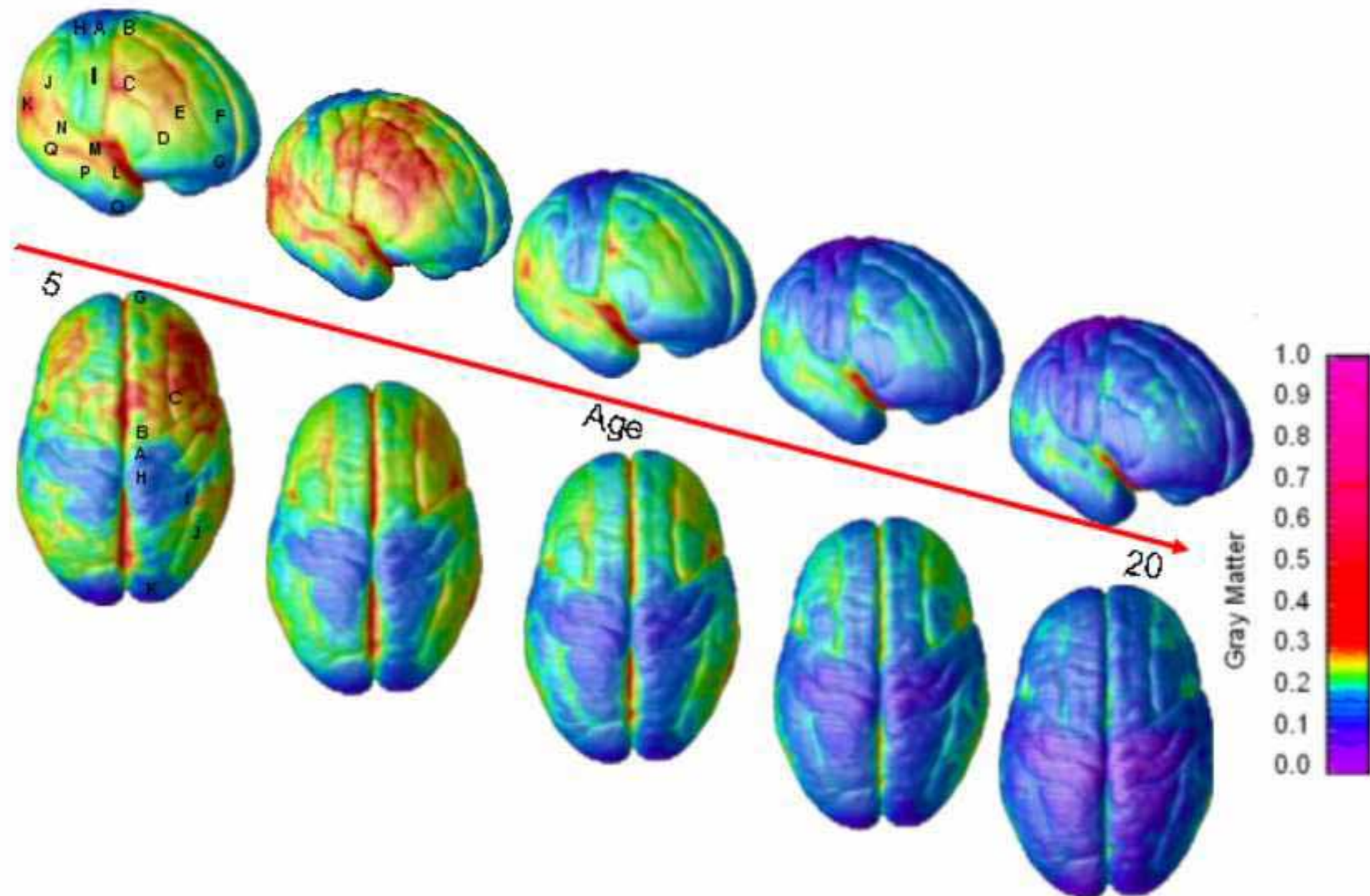
Demonstrate extensive symbolic thought capacities

Ability to self-regulate and explain their own behaviour



8-14 years old – Brain

Maturation of the frontal lobes continues and synaptic pruning begins

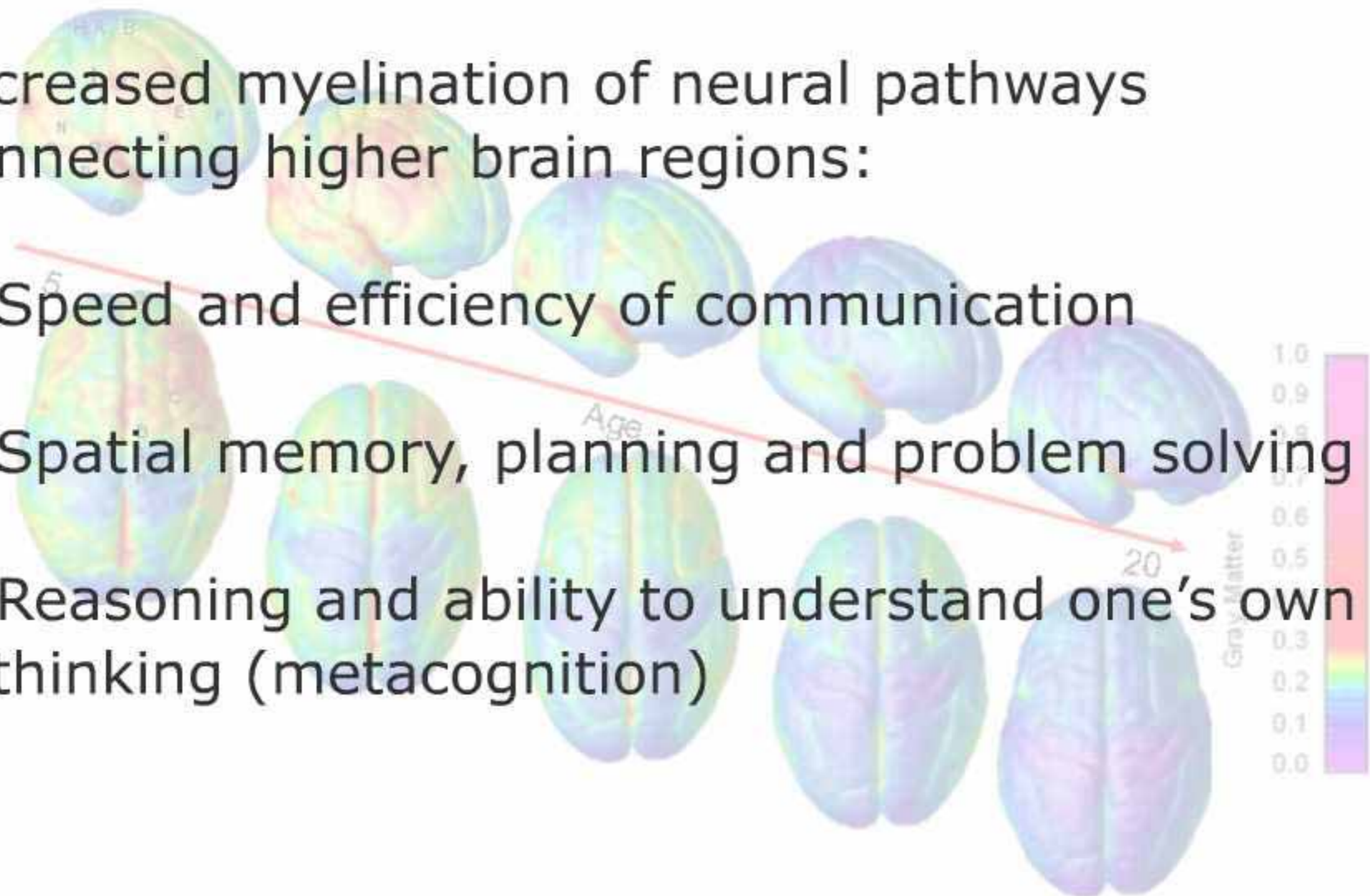


8-14 years old – Brain

Maturation of the frontal lobes continues and synaptic pruning begins

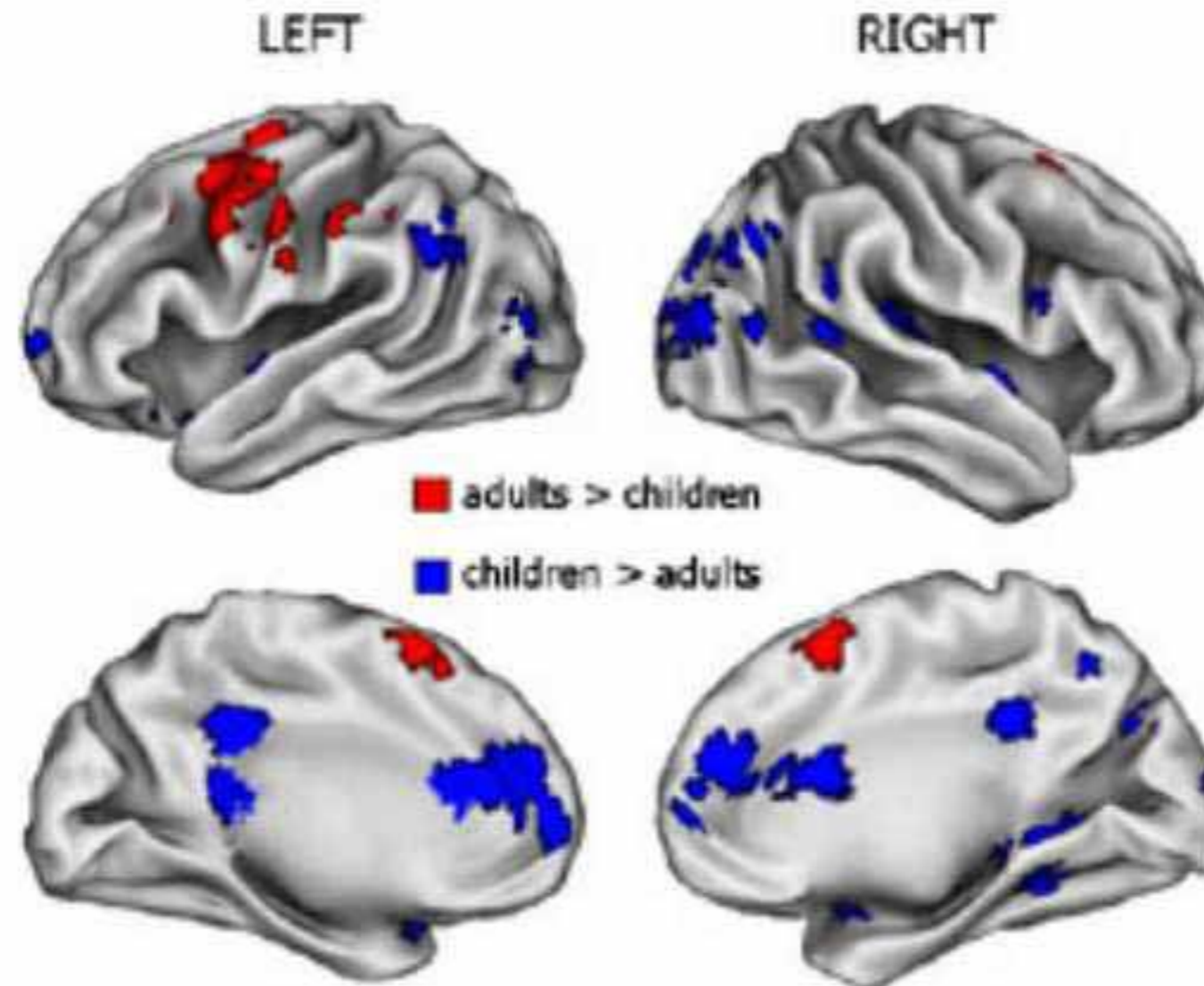
Increased myelination of neural pathways connecting higher brain regions:

- Speed and efficiency of communication
- Spatial memory, planning and problem solving
- Reasoning and ability to understand one's own thinking (metacognition)



8-14 years old – Brain

Individuals still use larger areas of their brains than adults



Individual differences in brain structure stabilise

8-14 years old - Play

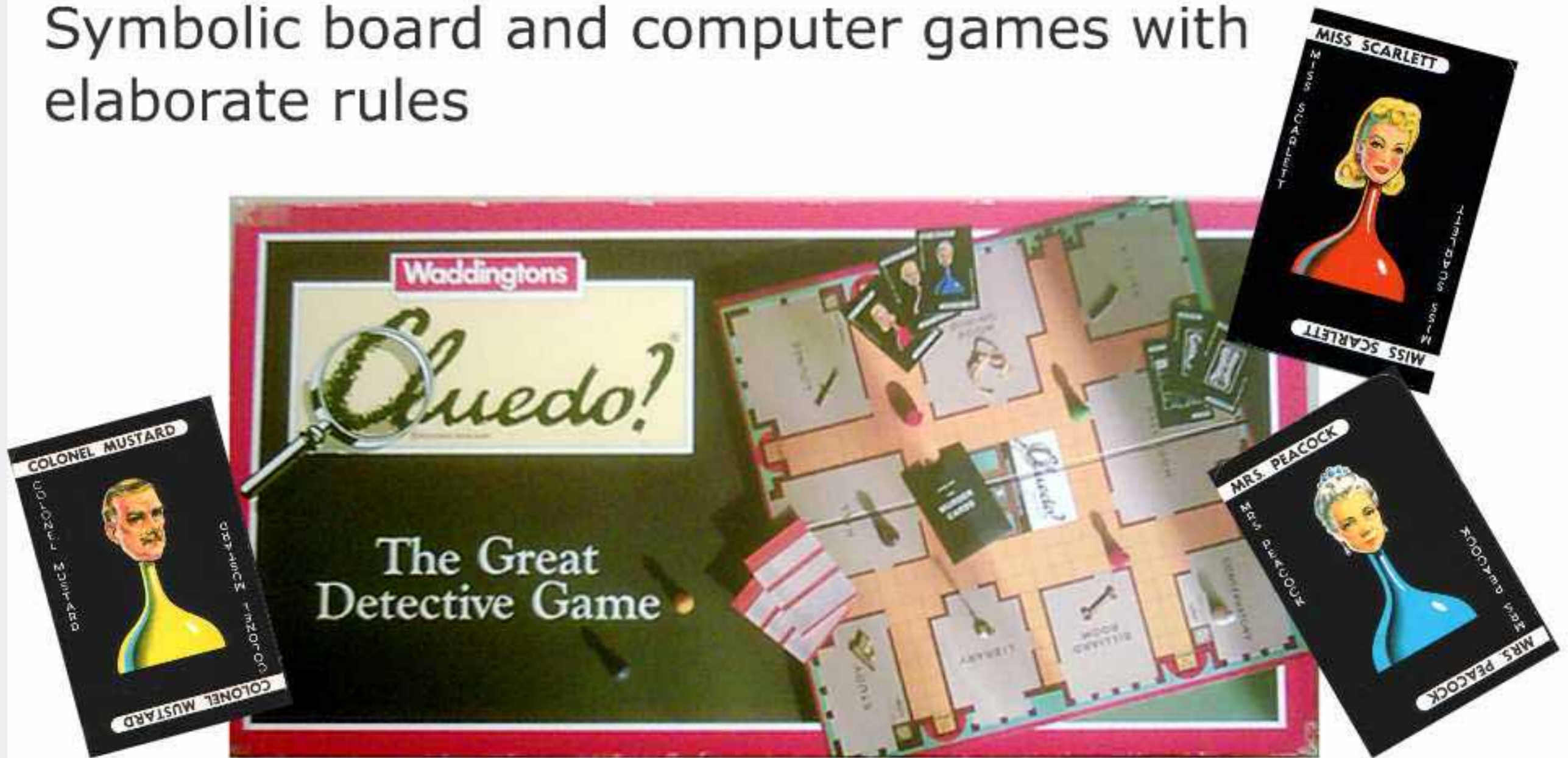
Increasingly sophisticated and symbolic with pretend themes often carrying on for months



8-14 years old - Play

Increasingly sophisticated and symbolic with pretend themes often carrying on for months

Symbolic board and computer games with elaborate rules



8-14 years old - Play

Greater involvement in adult-controlled, more organised games



Play, a biological imperative shaped by experience

The amount and type of play is geared by lifestyle



Play, a biological imperative shaped by experience

The amount and type of play is geared by lifestyle

Hunters play more than prey



Play, a biological imperative shaped by experience

The amount and type of play is geared by lifestyle

Hunters play more than prey



Play, a biological imperative shaped by experience

The amount and type of play is geared by lifestyle

Hunters play more than prey



Play, a biological imperative shaped by experience

The amount and type of play is geared by lifestyle

Hunters play more than prey



Play, a biological imperative shaped by experience

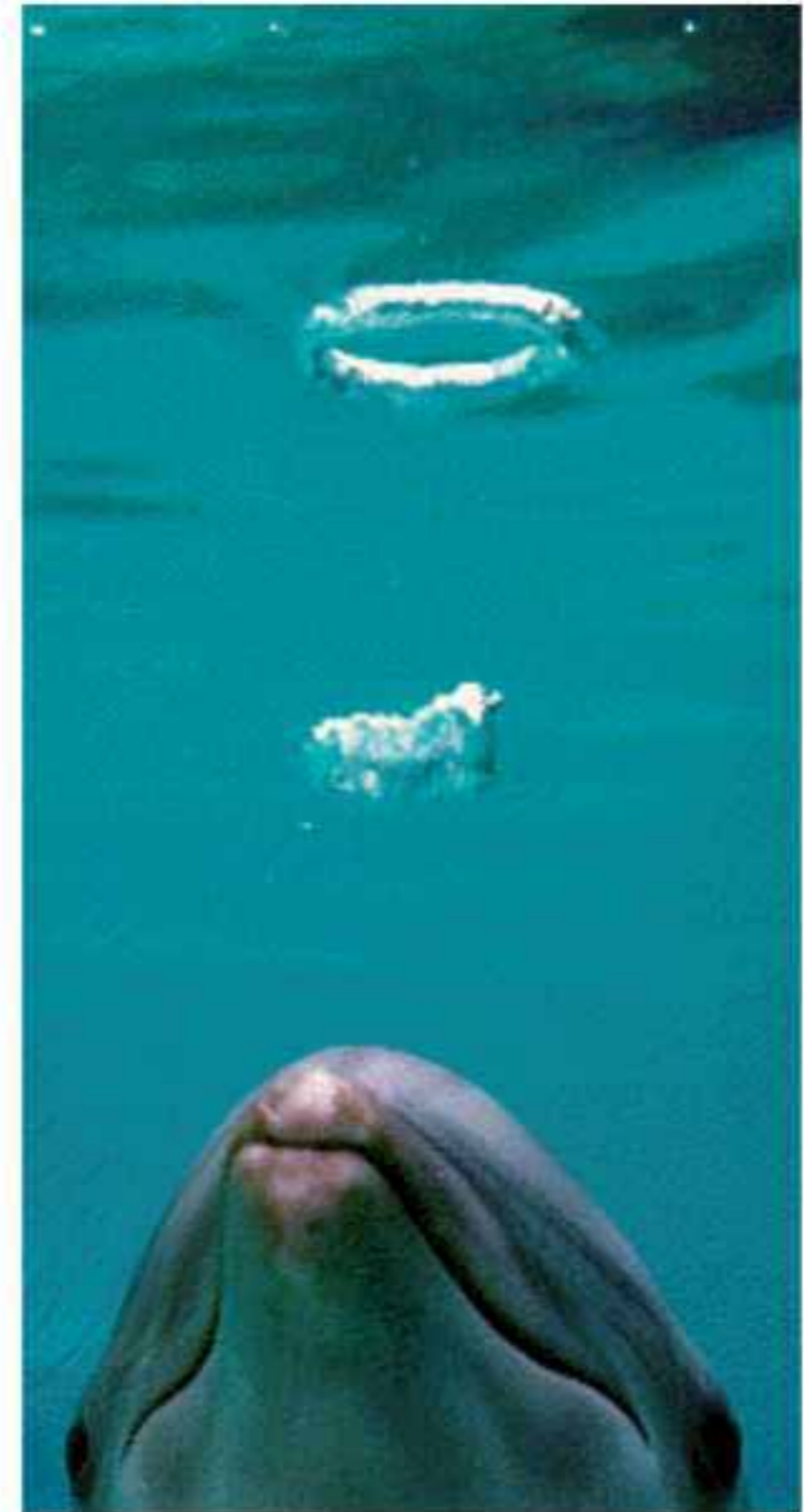
The more social the species
the more they play



Play, a biological imperative shaped by experience

The more social the species
the more they play

Dolphins may be undisputed
champions, with 317 types

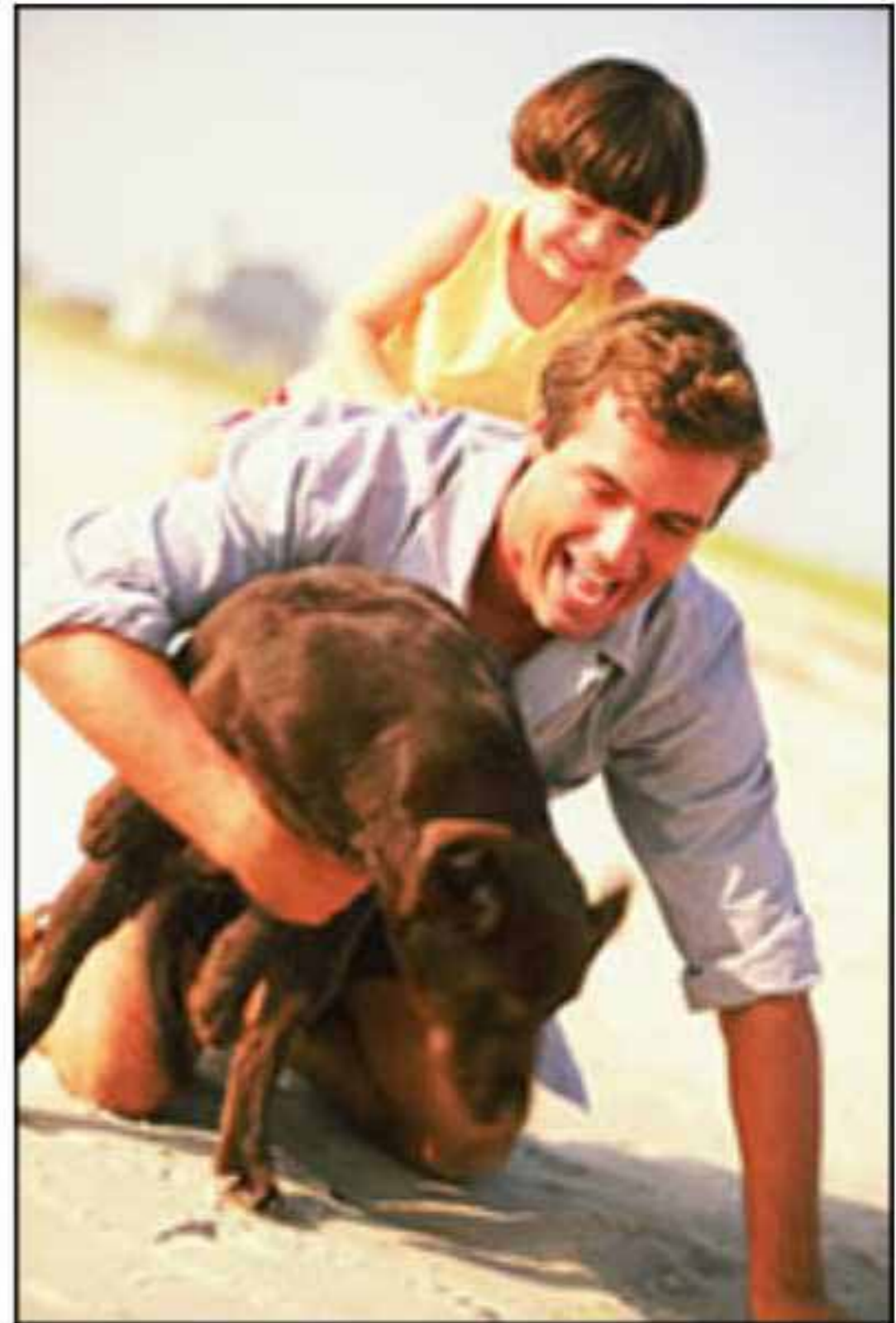


Play, a biological imperative shaped by experience

The more social the species
the more they play

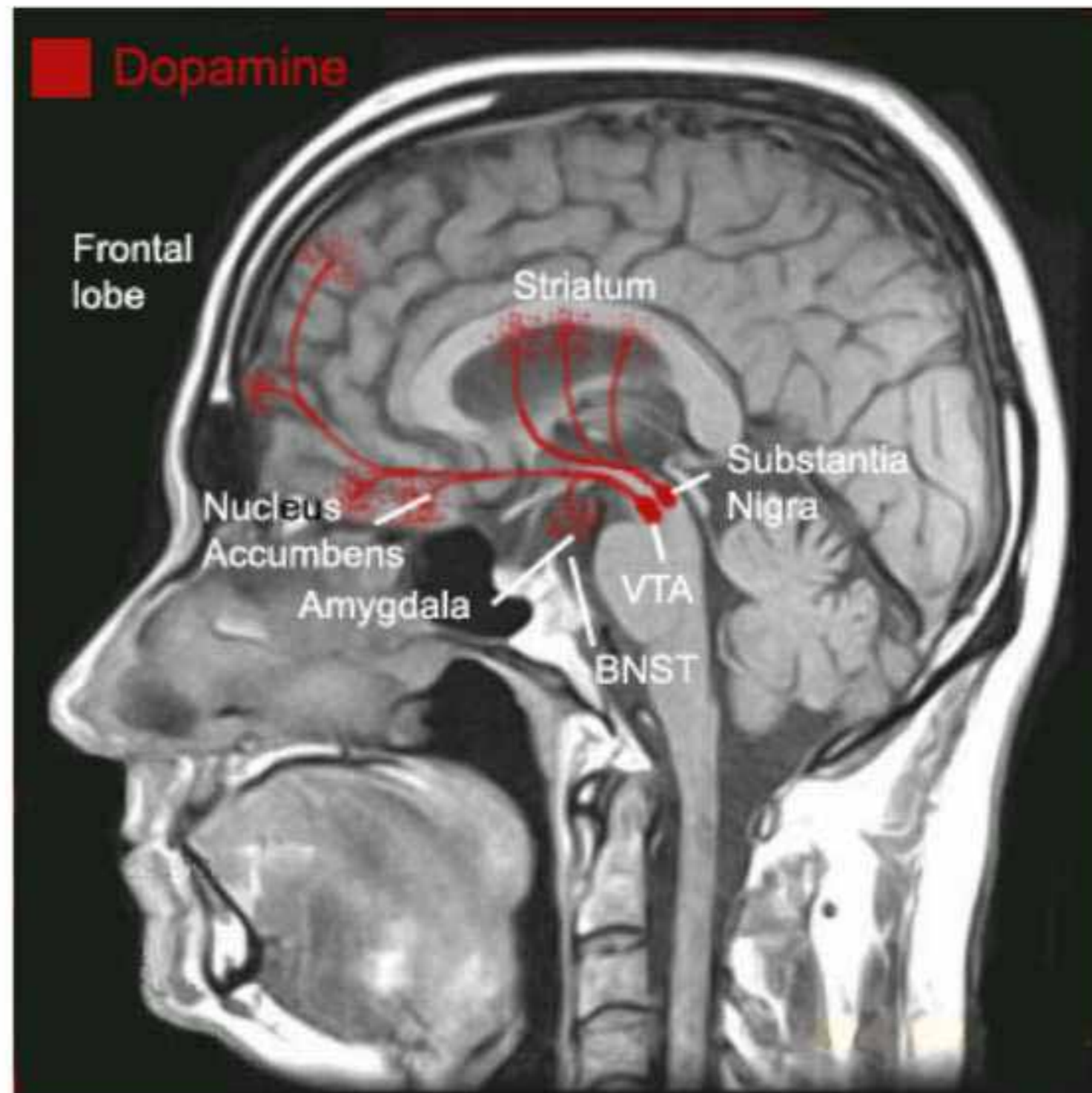
Dolphins may be undisputed
champions, with 317 types

We like to keep playful
species as pets



Play, a biological imperative shaped by experience

Play for all species is reinforced by brain reward systems



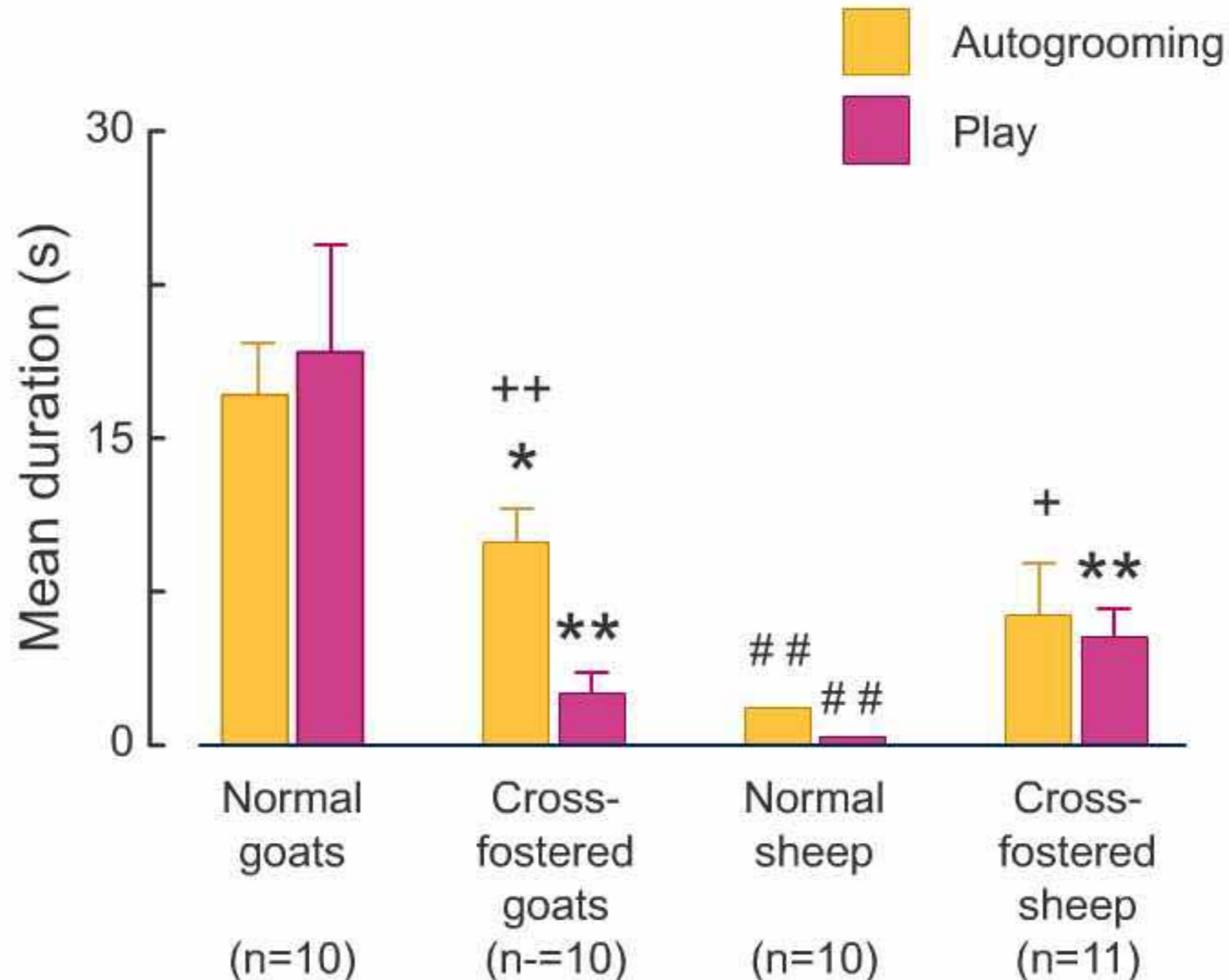
Play, a biological imperative shaped by experience

It is not hard-wired and can be influenced by experience



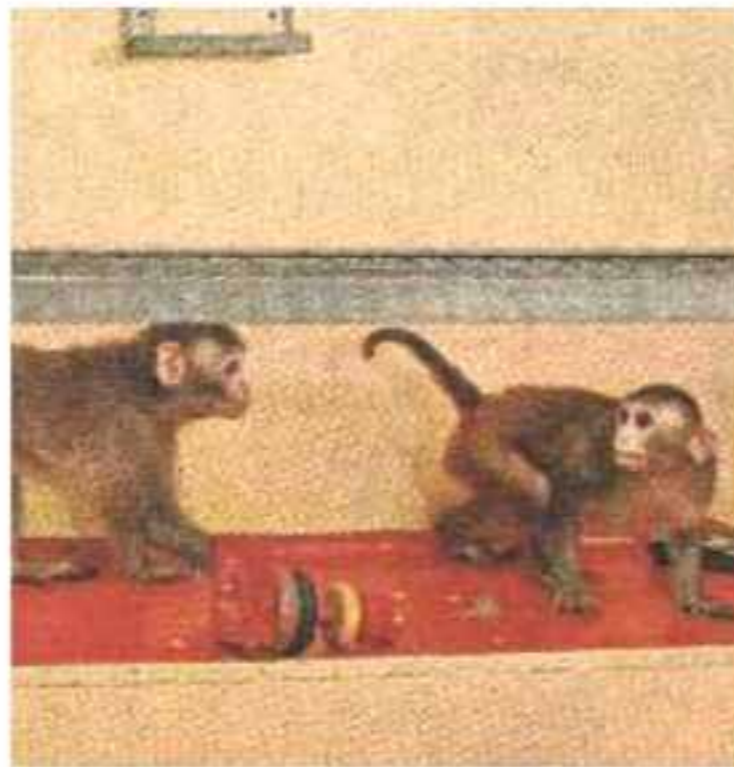
Play, a biological imperative shaped by experience

It is not hard-wired and can be influenced by experience



Effects of play deprivation

Early social isolation can have devastating effects on sociosexual development



Effects of play deprivation

Early social isolation can have devastating effects on sociosexual development

How much of this is down to play deprivation?

Noldus
information technology

Play deprivation decreases adult social behavior

CAROLINE VAN DEN BERG, JAN VAN REE AND BERRY SPRUIJT

USING ETHOVISION FOR NEUROSCIENCE RESEARCH

Effects of play deprivation

Early social isolation can have devastating effects on sociosexual development

How much of this is down to play deprivation?

In rodents play deprivation impairs sociosexual, aggressive and defensive behaviours



Effects of play deprivation

Early social isolation can have devastating effects on sociosexual development

How much of this is down to play deprivation?

In rodents play deprivation impairs sociosexual, aggressive and defensive behaviours

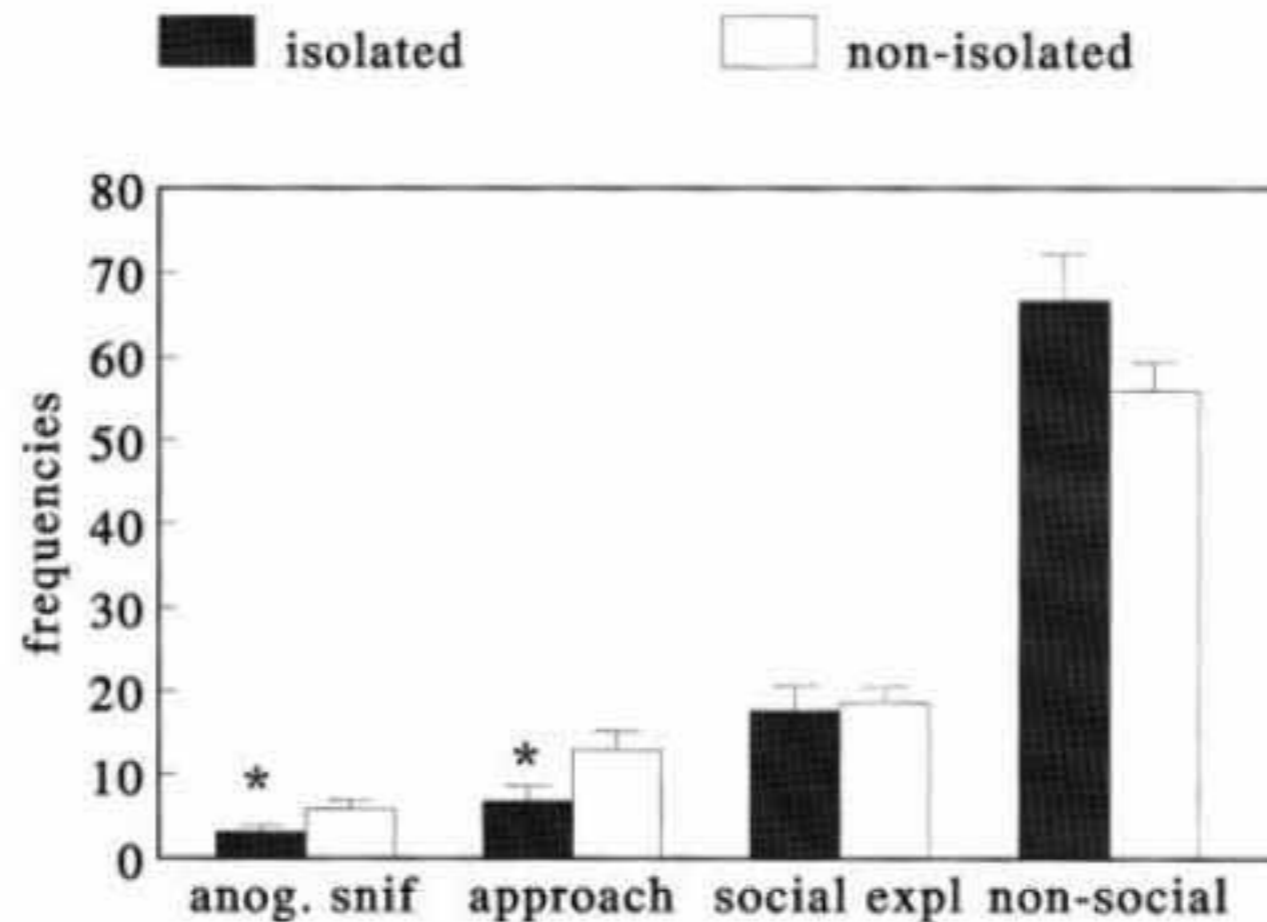
Effects of social isolation are prevented by only 30 minutes play each day



Effects of play deprivation

Critical periods for the influence of play on development

van den Berg *et al* 1999



Short periods of play deprivation will be compensated for

Effects of play deprivation

What about humans?



Effects of play deprivation

What about humans?

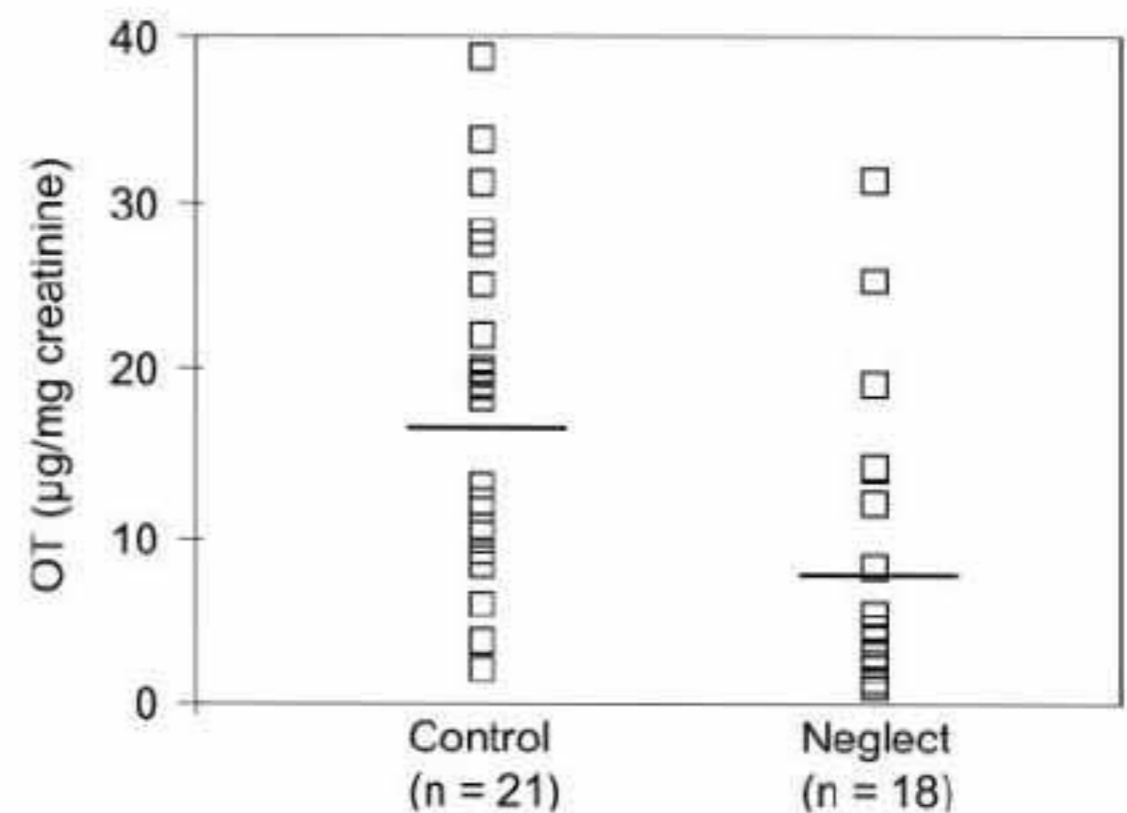
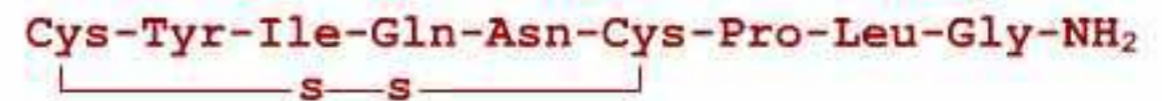
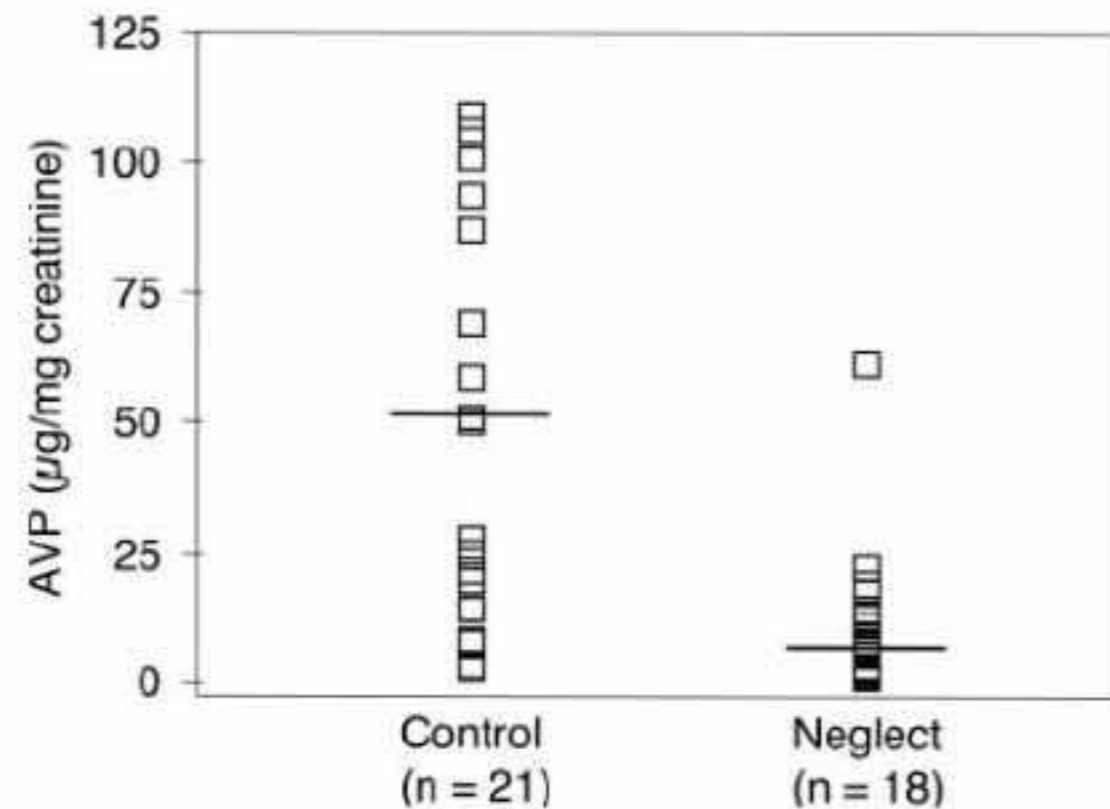
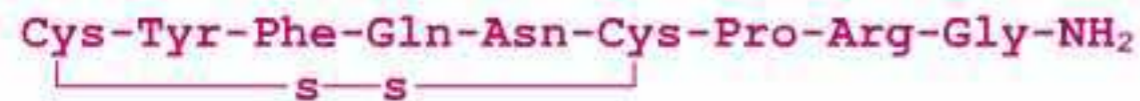
Studies report psychosocial development problems in children raised in Institutions



Effects of play deprivation

Short periods of living in an Institution alter subsequent release of bonding hormones

Wisner Fries *et al* 2005



Effects of play deprivation

Claims are often made that changes during first 6-7 years are difficult to reverse



Are modern children playing less?

Reduced family sizes and more working parents...

I'M AN
ONLY CHILD...
LET'S KEEP IT
THAT WAY!

Are modern children playing less?

Reduced family sizes and more working parents...

...but...

...more nurseries, playgroups, schools...



Are modern children playing less?

Reduced family sizes and more working parents...

...but...

...more nurseries, playgroups, schools...

...and greater range of toys and computer games



Are modern children playing less?

Perhaps less social interaction components of play



The nature of early social interactions

The nature of early social interactions is important



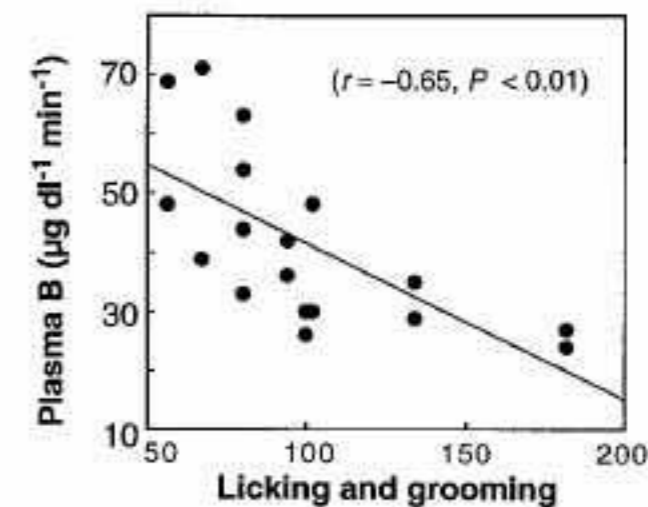
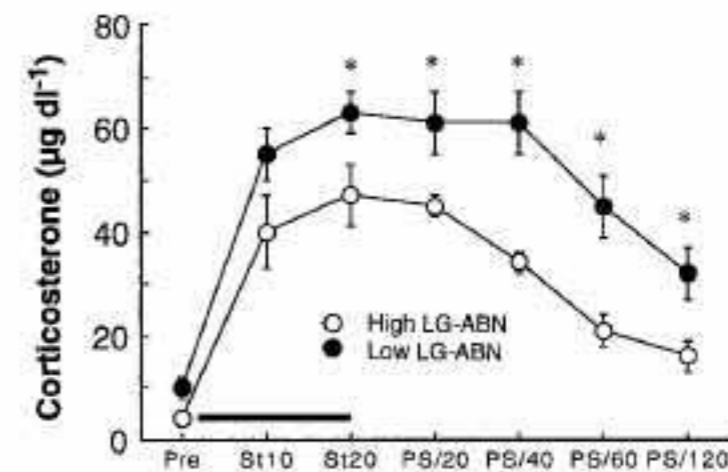
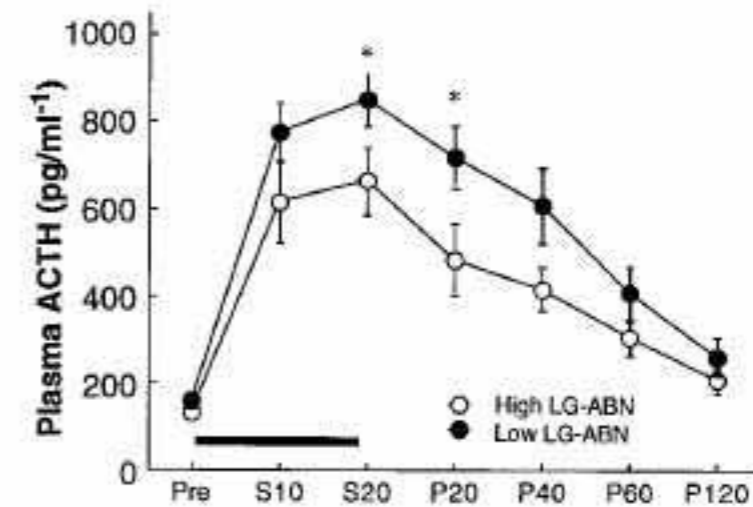
Learning plays a critical role in social and emotional development in all social species

The nature of early social interactions

Parental influences can be significant

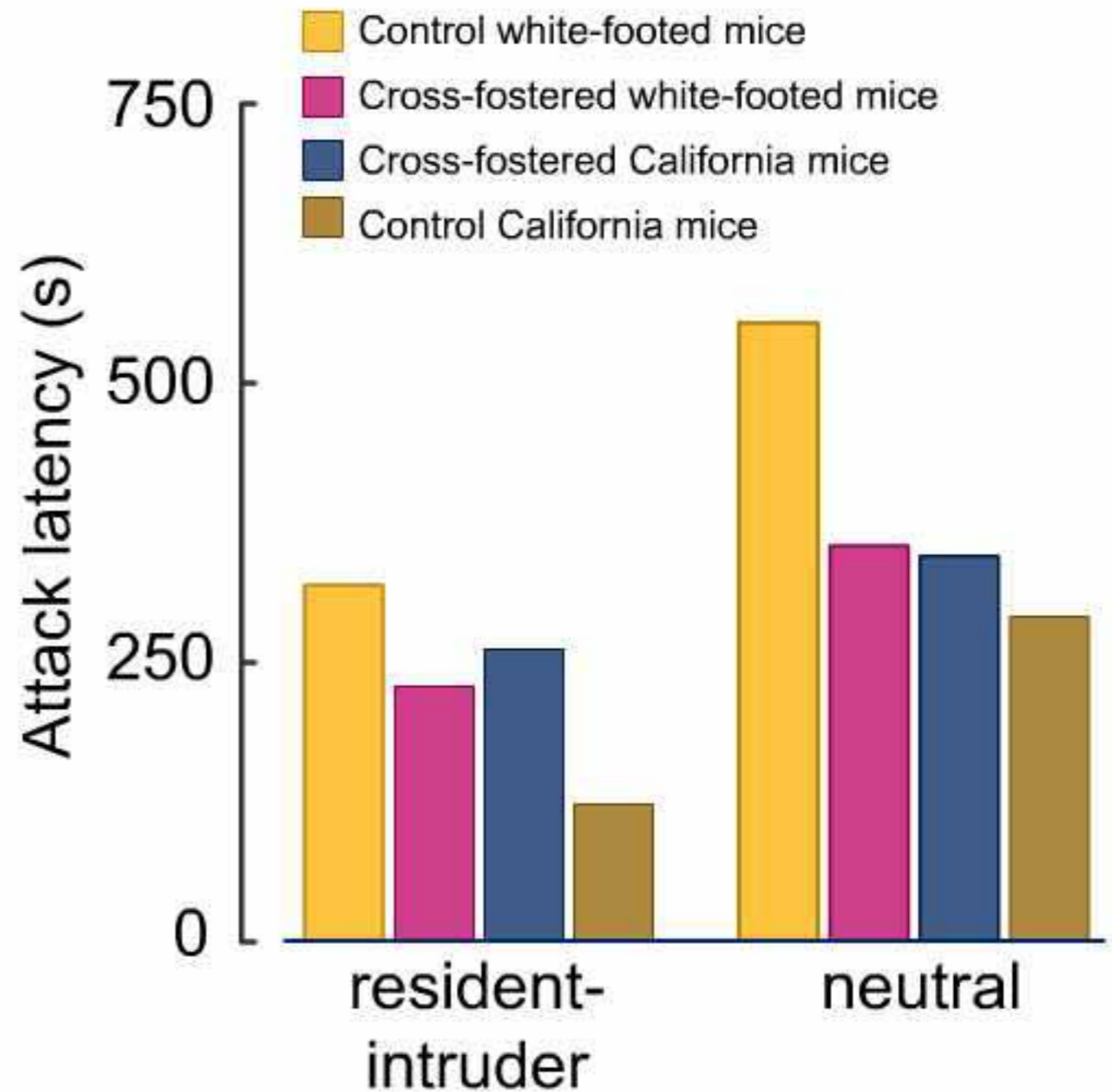


Dong Liu *et al* Science 1997



The nature of early social interactions

Parental influences can be significant



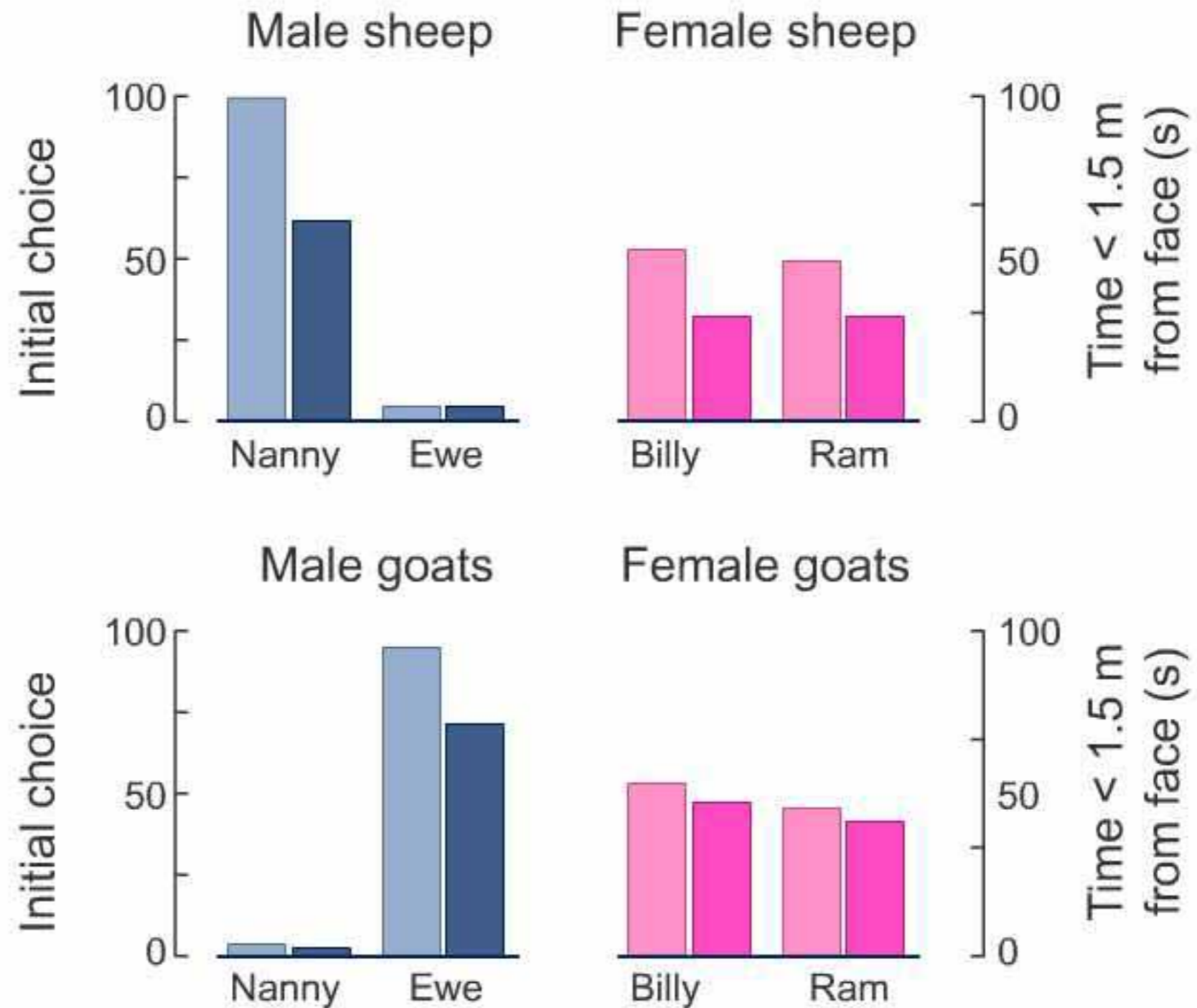
The nature of early social interactions

Parental influences can be significant



Initial
choice

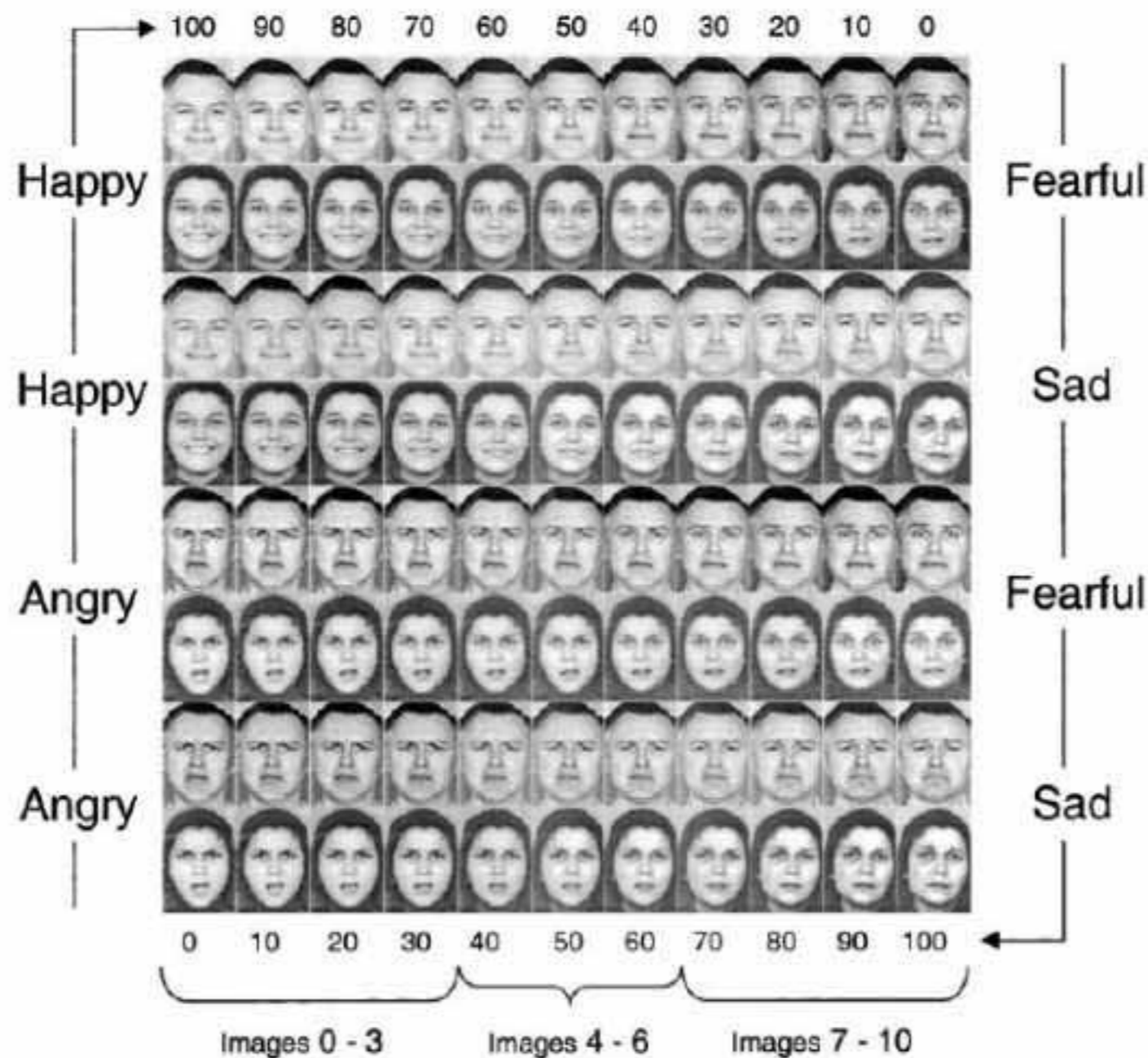
Time < 1.5m
from face (s)



The nature of early social interactions

Early abuse can change ability to discriminate angry facial expressions

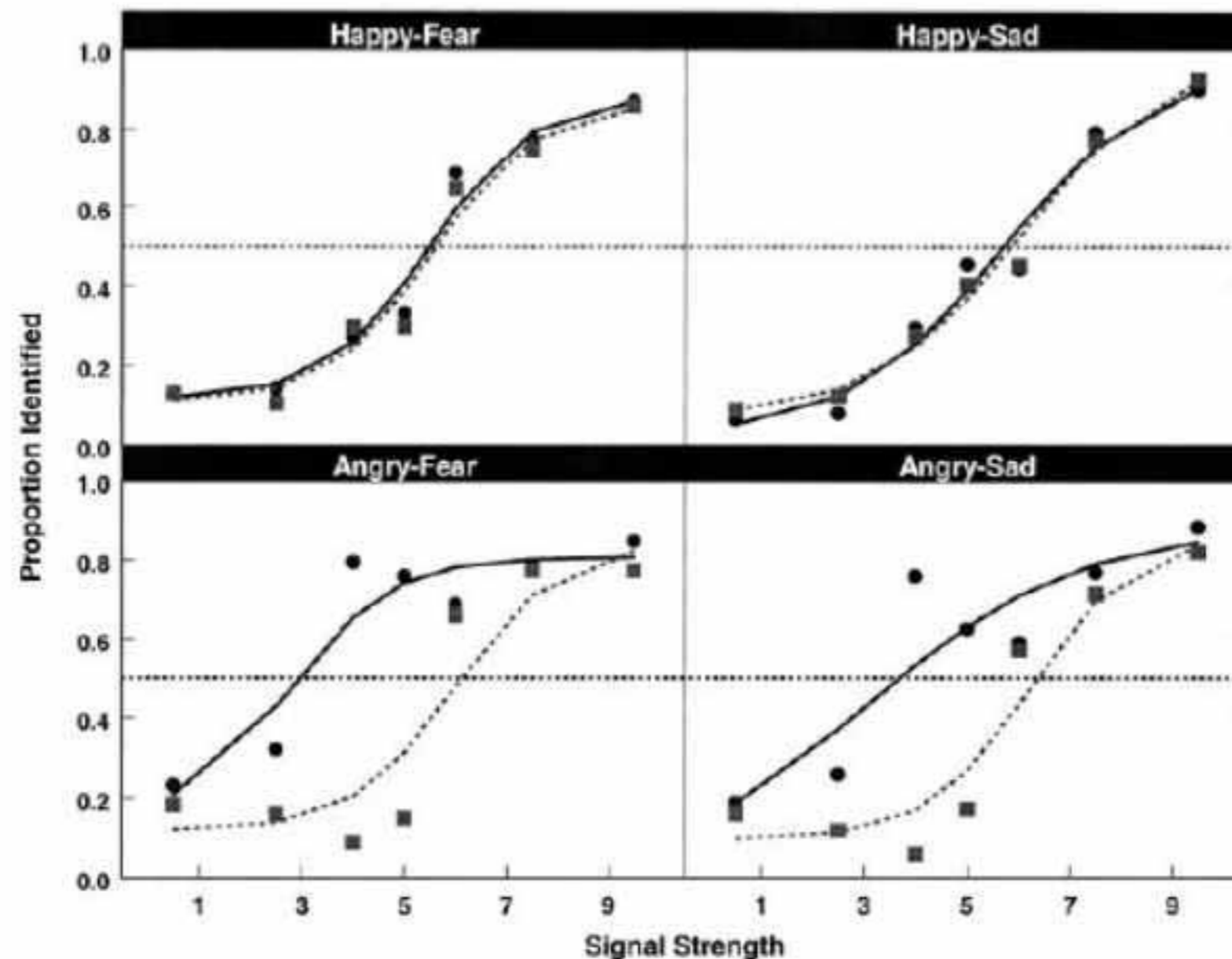
Pollak and Kistler, 2002



The nature of early social interactions

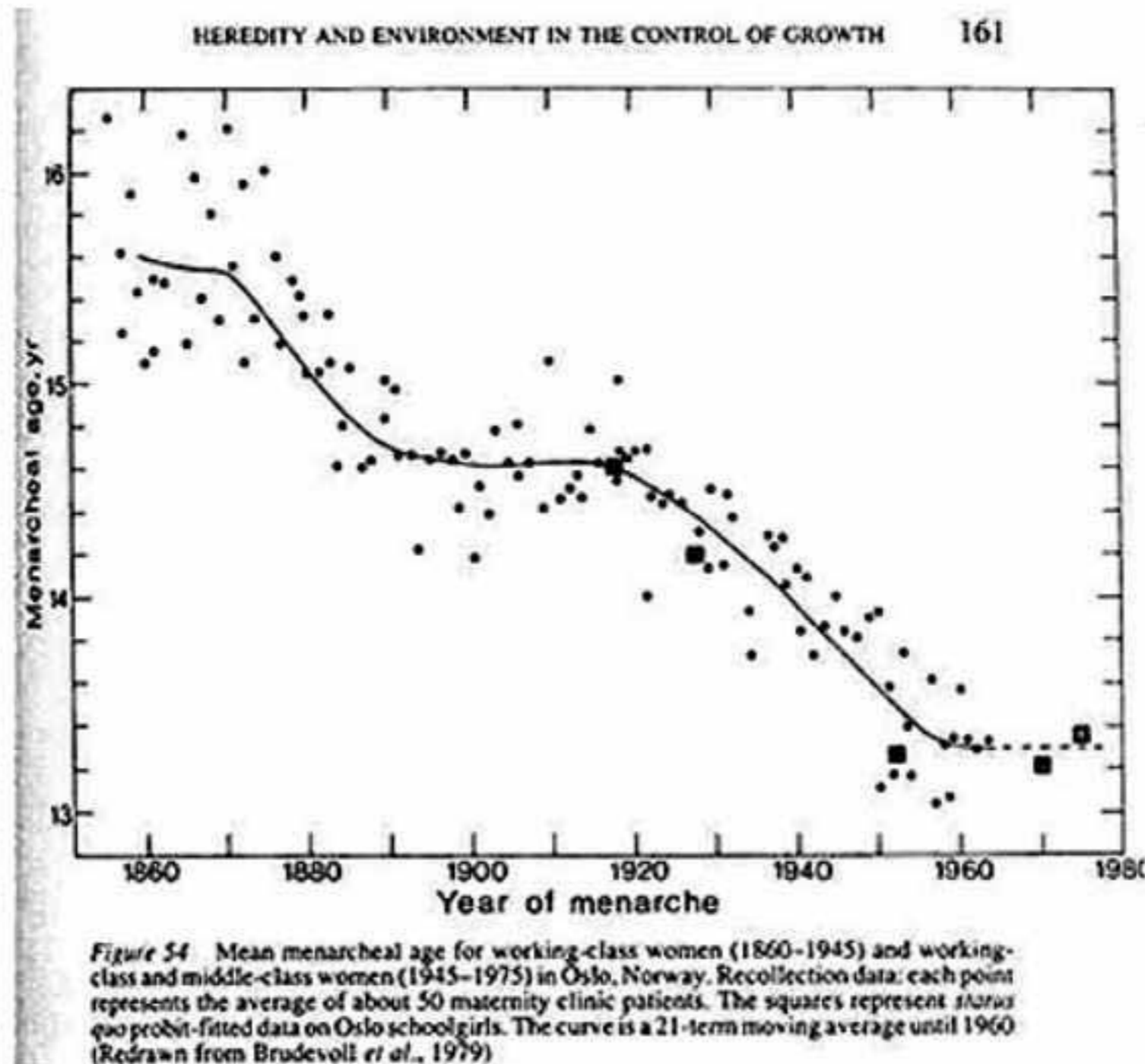
Early abuse can change ability to discriminate angry facial expressions

Pollak and Kistler, 2002



Advancing the age of puberty

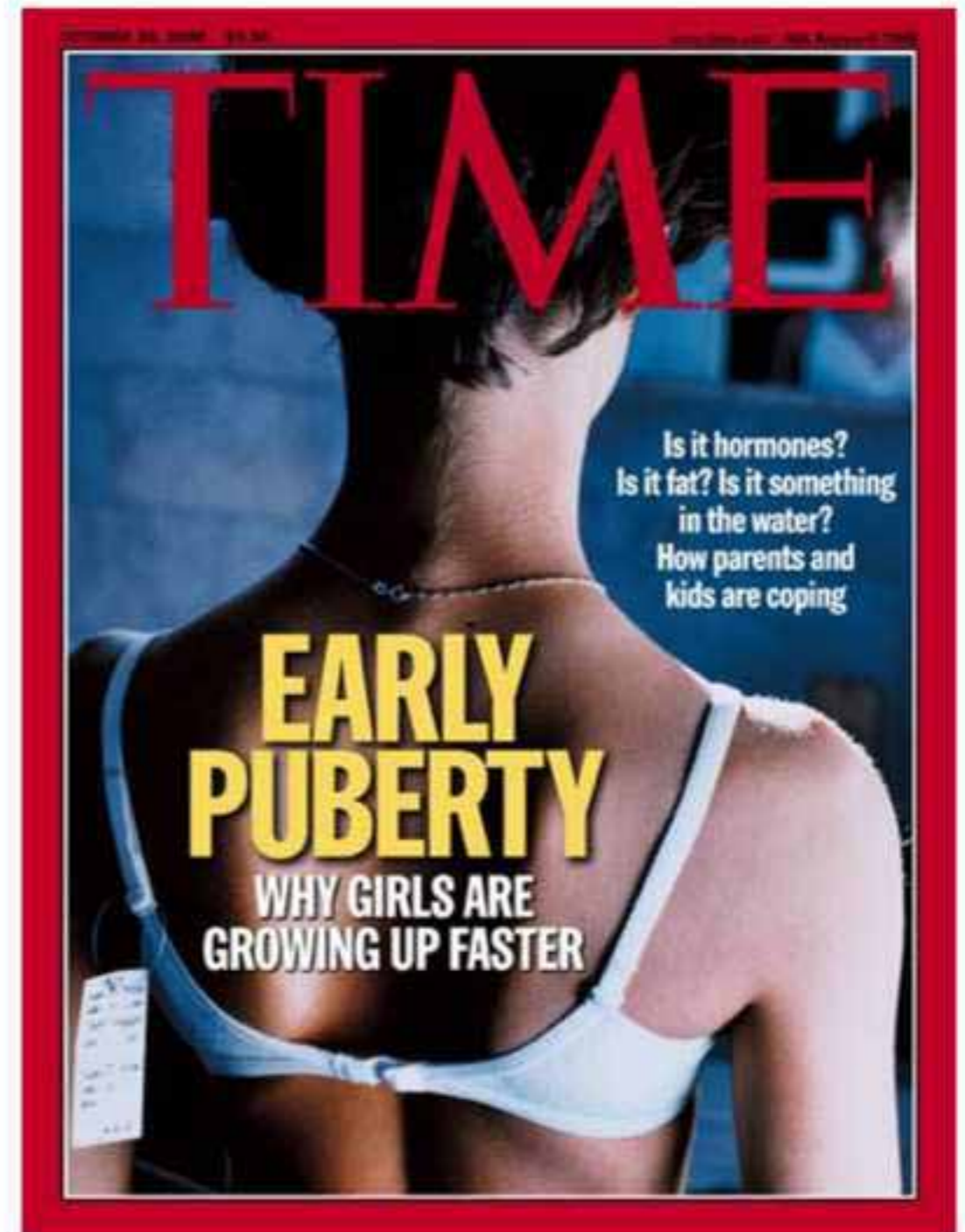
Average age of menarche has reduced by 3 years over the last 100 years



Advancing the age of puberty

Average age of menarche has reduced by 3 years over the last 100 years

In UK one in six girls show signs of puberty aged 8



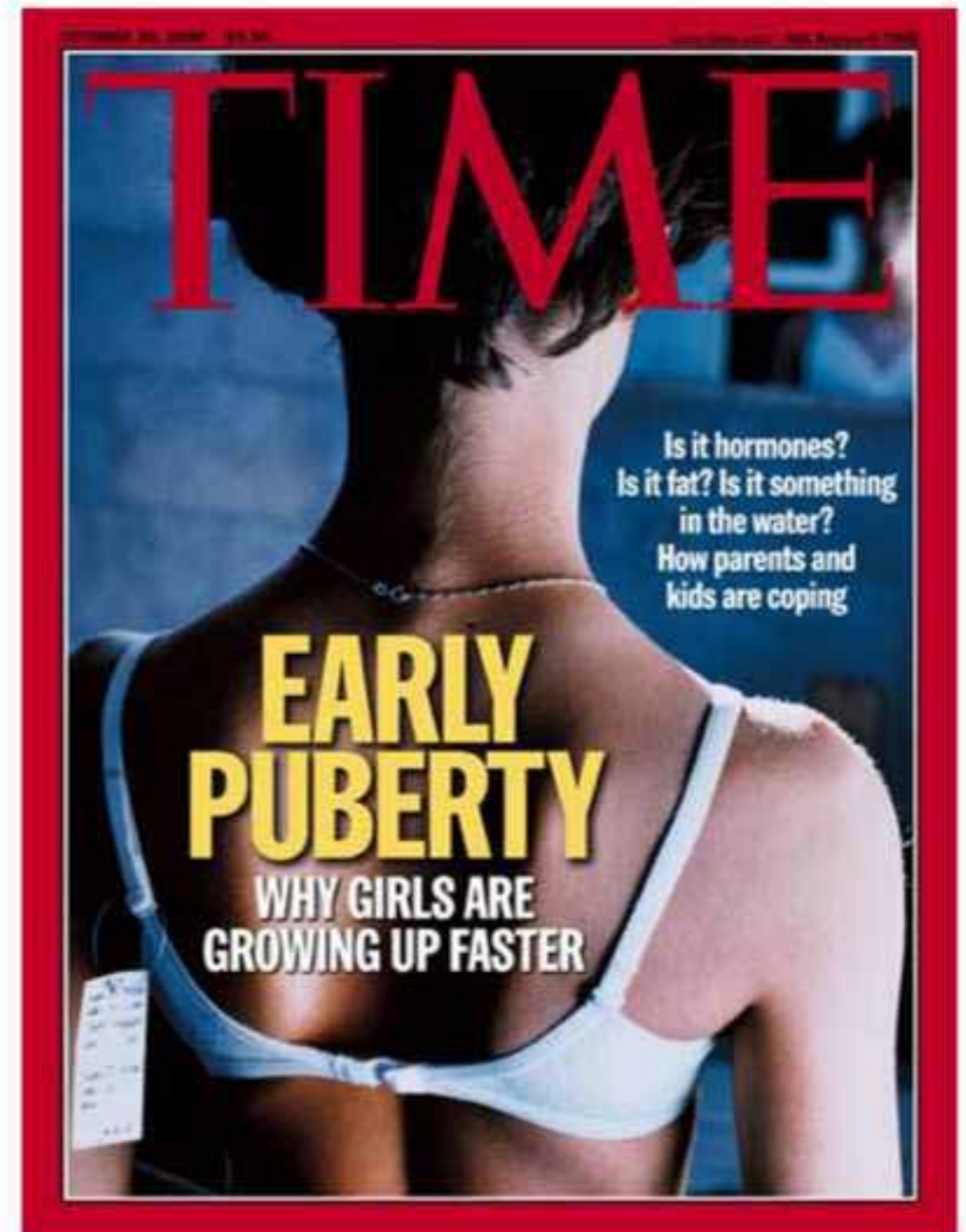
Advancing the age of puberty

Average age of menarche has reduced by 3 years over the last 100 years

In UK one in six girls show signs of puberty aged 8

Puberty:

- girls 8-13
- boys 9-14



Advancing the age of puberty

Has led to the concept of tweens!



Advancing the age of puberty

Why?

Endocrine disrupters?



Classification	Target substances	Measuring range
Female sex hormone	• Estradiol (E2)	1ppt~100ppt
	• Estradiol-3-gluconate (E2-3glu)	2.5ppt~47ppt
	• Estradiol-3-sulfate (E2-3sul)	1ppt~100ppt
	• Estriol (E3)	1ppt~100ppt
	• Estradiol-3-gluconate (E3-3glu)	200ppt~730ppt
	• Estradiol-3-sulfate (E3-3sul)	1ppt~39ppt
Dioxins	• PCB (3,3',4,4'-Tetra Chloro Biphenyl)	300ppt~6ppb
	• PCB (3,3',4,4',5-Penta Chloro Biphenyl)	150ppt~3ppb
	• PCB (3,3',4,4',5,5'-Hexa Chloro Biphenyl)	36ppt~5.4ppb
Surfactants	• Anionic surfactant linear alkylbenzenesulfonic acid (LAS)	10nM~1 μ M (Molecular weight unknown)

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Volume 114, Number 4
April 2006

[Abstract](#) [Full](#) [Citation in Pub Med](#)

Environmental Health Perspectives Volume 102, Number 4, April 1994

The Pesticides Endosulfan, Toxaphene, and Dieldrin Have Estrogenic Effects on Human Estrogen-Sensitive Cells

Ana M. Soto, Kerrie L. Chung, and Carlos Sonnenschein

Department of Anatomy and Cellular Biology, Tufts University School of Medicine, Boston, MA 02111 USA

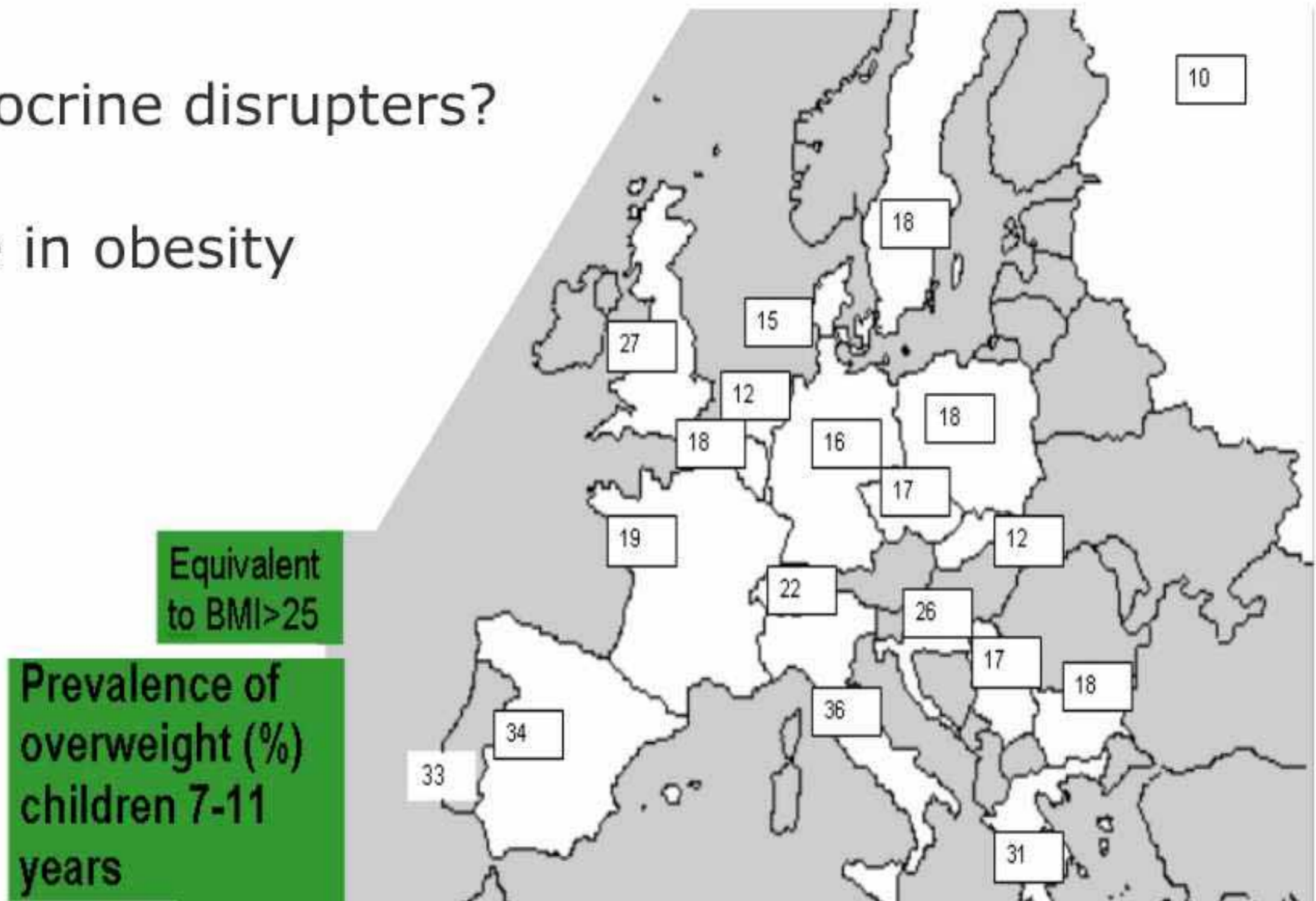
Abstract

Advancing the age of puberty

Why?

Endocrine disruptors?

Rise in obesity



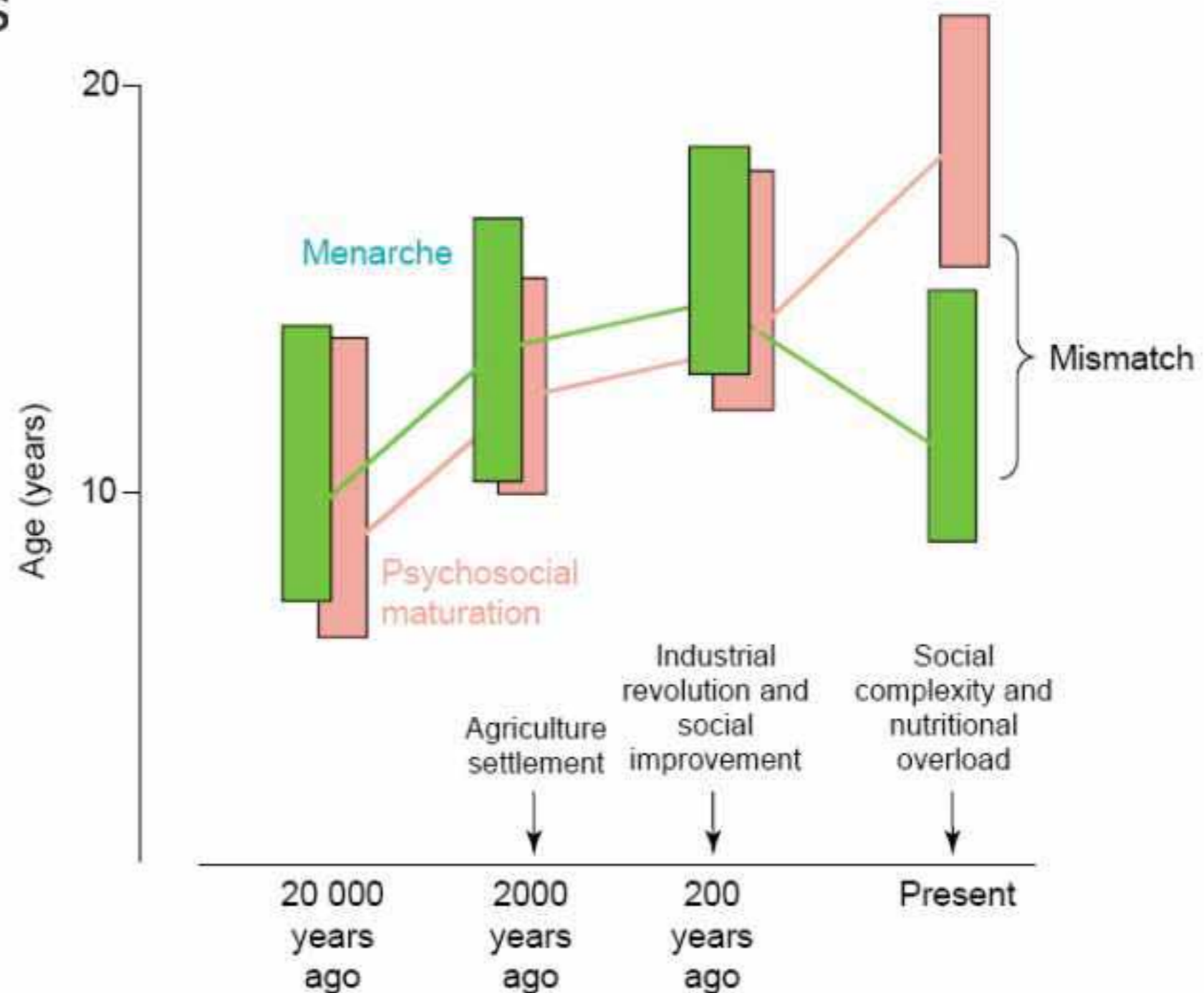
Advancing the age of puberty

Better nutritional support and reduced child mortality



Advancing the age of puberty

Current age of puberty may still be normal for homo sapiens



Advancing the age of puberty

Current age of puberty may still be normal for homo sapiens

Changes in social environment can also advance puberty



Advancing the age of puberty

Current age of puberty may still be normal for homo sapiens

Changes in social environment can also advance puberty

Strange male odours have this same effect in other animals



Advancing the age of puberty

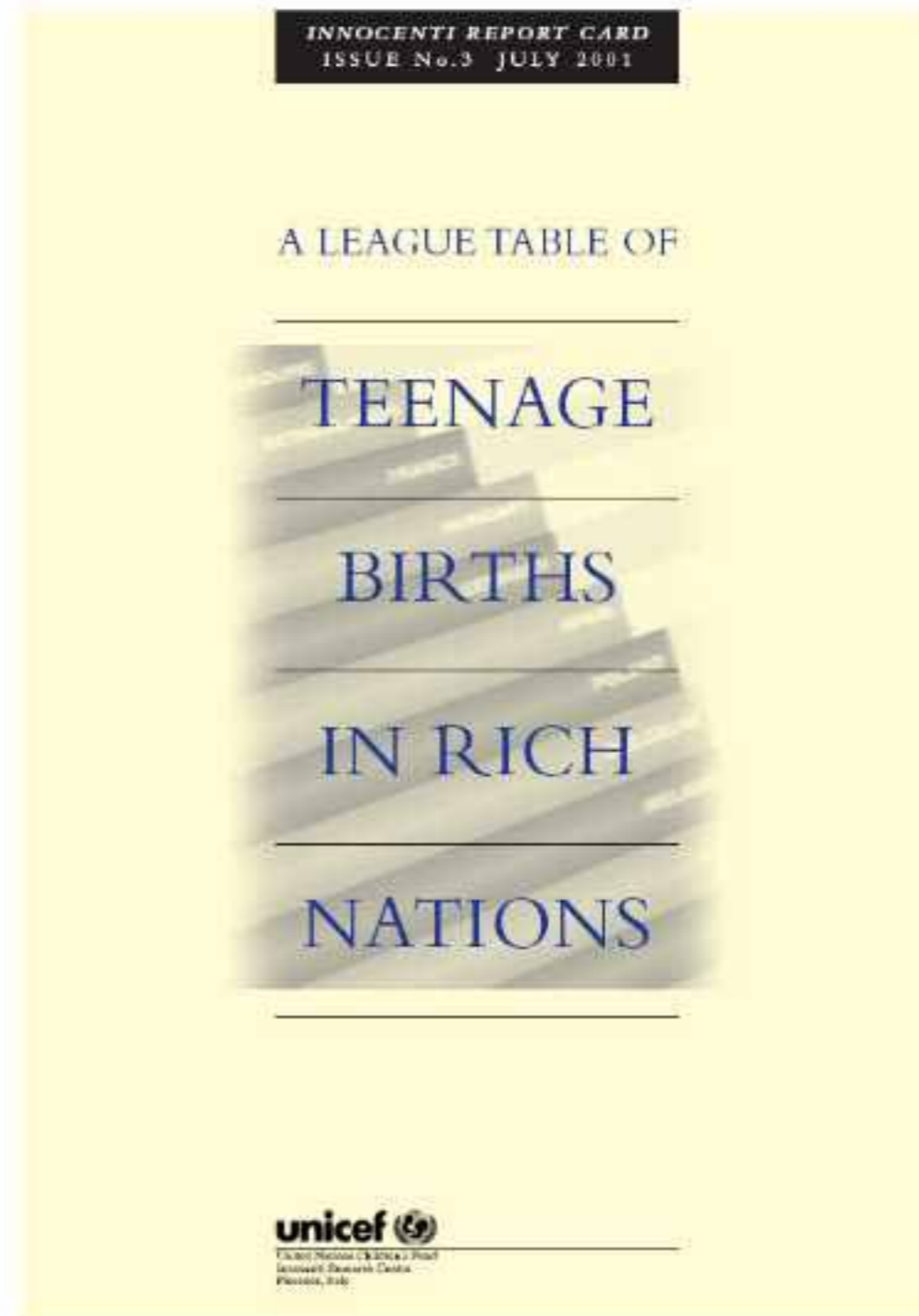
Depression in a mother can also advance puberty in her children



Advancing the age of puberty

In the world's rich nations more than 750,000 teenagers will become mothers in the next year

UNICEF 2001



Advancing the age of puberty

In the world's rich nations more than 750,000 teenagers will become mothers in the next year

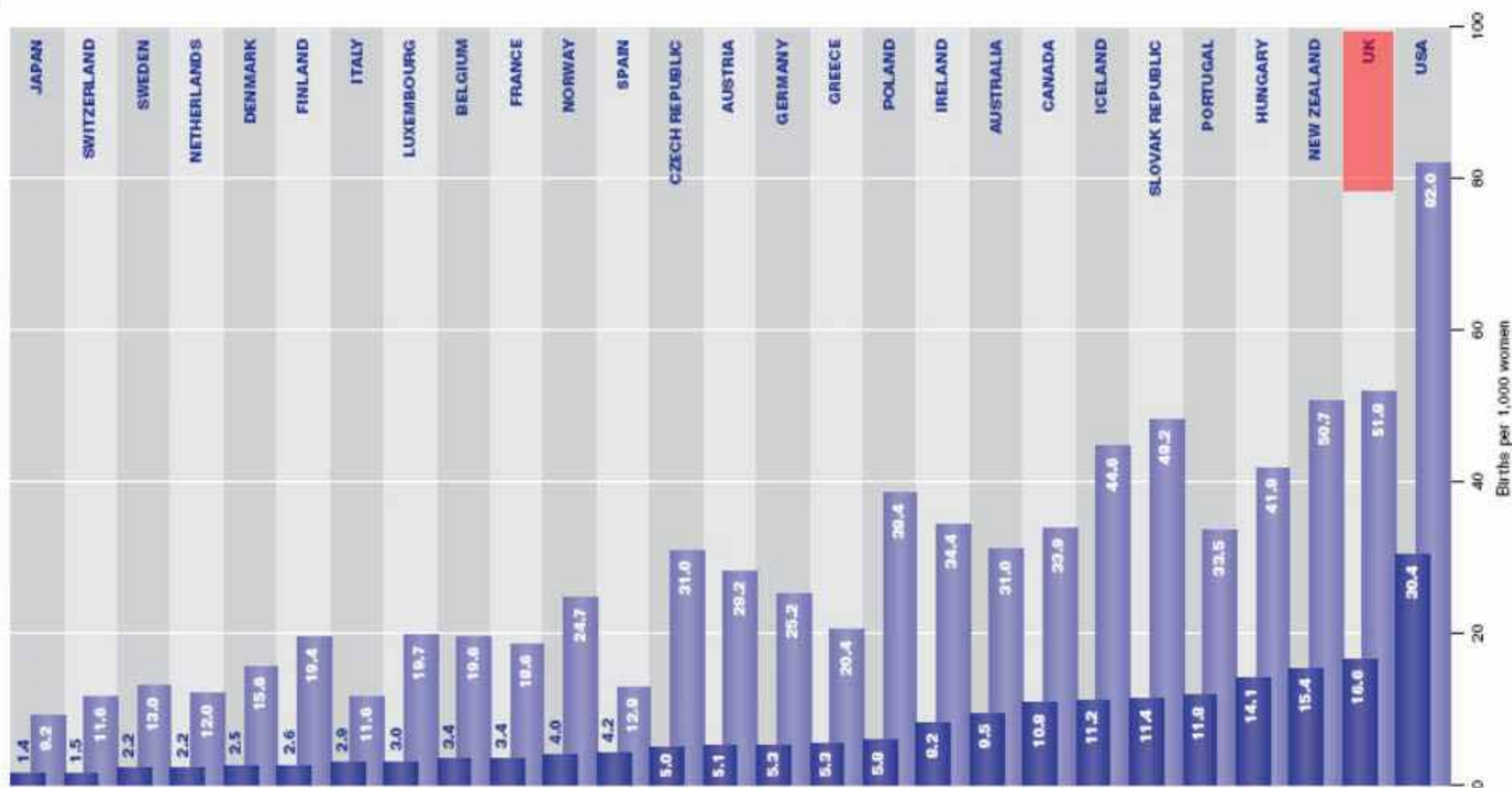
UNICEF 2001

A further half a million had an abortion, so a total of 1.25 million teenage pregnancies



Advancing the age of puberty

Teenage birthrates in the UK are still the highest in Western Europe



Advancing the age of puberty

In 2002 there were 3,514 abortions on girls under 16



The screenshot shows the homepage of the Marie Stopes International website. At the top, a blue banner reads "ABORTION HELP AND ADVICE" and includes a link to "visit mariestopes.org.uk". Below this, the website's URL "www.abortion-help.co.uk" is displayed, along with the tagline "Straightforward abortion help and advice online". A navigation menu contains links for "home", "the law", "think you're pregnant?", "your options", "book an appointment", "frequently asked questions", and "useful links". The main content area features a mission statement: "Our mission: to ensure all the fundamental right of all people to have children by choice not chance". A large blue box contains the text: "It may be that you have decided that you are going to have an abortion, or you just need more information. *Whatever your situation, at Marie Stopes International we promise to respect your decision, to respect your privacy and provide honest, straightforward help and advice.*". At the bottom, a white box states: "Marie Stopes International is one of the UK's leading abortion providers. We aim want to make sure that everyone has access to accurate information and safe, professional abortion services. abortion-help.co.uk is our online information source."

ABORTION HELP AND ADVICE

visit mariestopes.org.uk go

www.abortion-help.co.uk
Straightforward abortion help and advice online

MARIE STOPES INTERNATIONAL
with you from the moment you decide

[home](#) [the law](#) [think you're pregnant?](#) [your options](#) [book an appointment](#) [frequently asked questions](#) [useful links](#)

Our mission: to ensure all the fundamental right of all people to have children by choice not chance

It may be that you have decided that you are going to have an abortion, or you just need more information.

*Whatever your situation,
at Marie Stopes International we promise to respect your decision, to respect your privacy and provide honest, straightforward help and advice.*

Marie Stopes International is one of the UK's leading abortion providers. We aim want to make sure that everyone has access to accurate information and safe, professional abortion services.

abortion-help.co.uk is our online information source.

Advancing the age of puberty

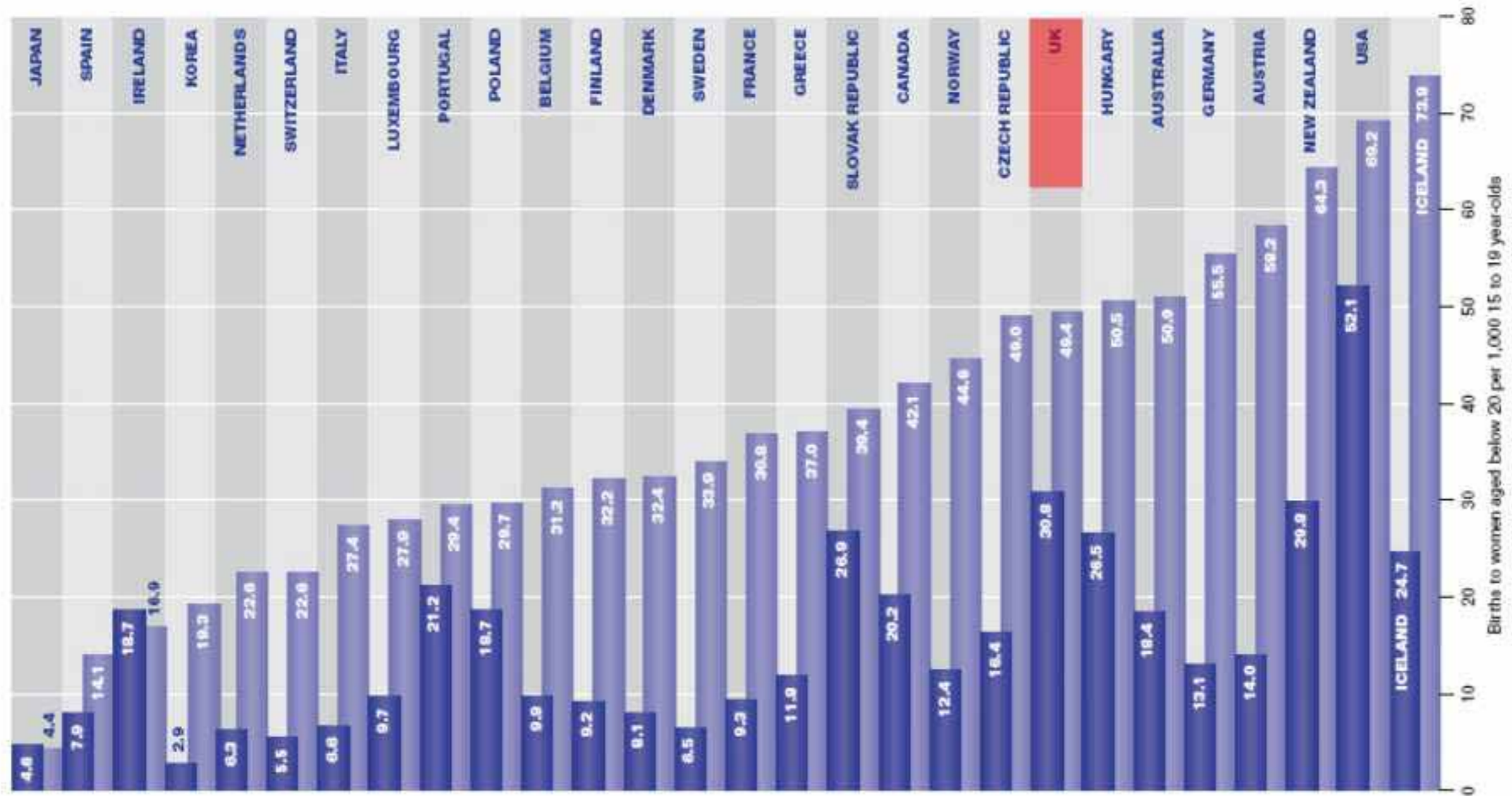
Infant mortality rates for babies born to teenage mothers is 50% higher than average...

... and comprised 12% of all infant deaths in 2000 (around 400 deaths)



Advancing the age of puberty

Overall numbers giving birth in their teens has dropped in the last 30 years



Advancing the age of puberty

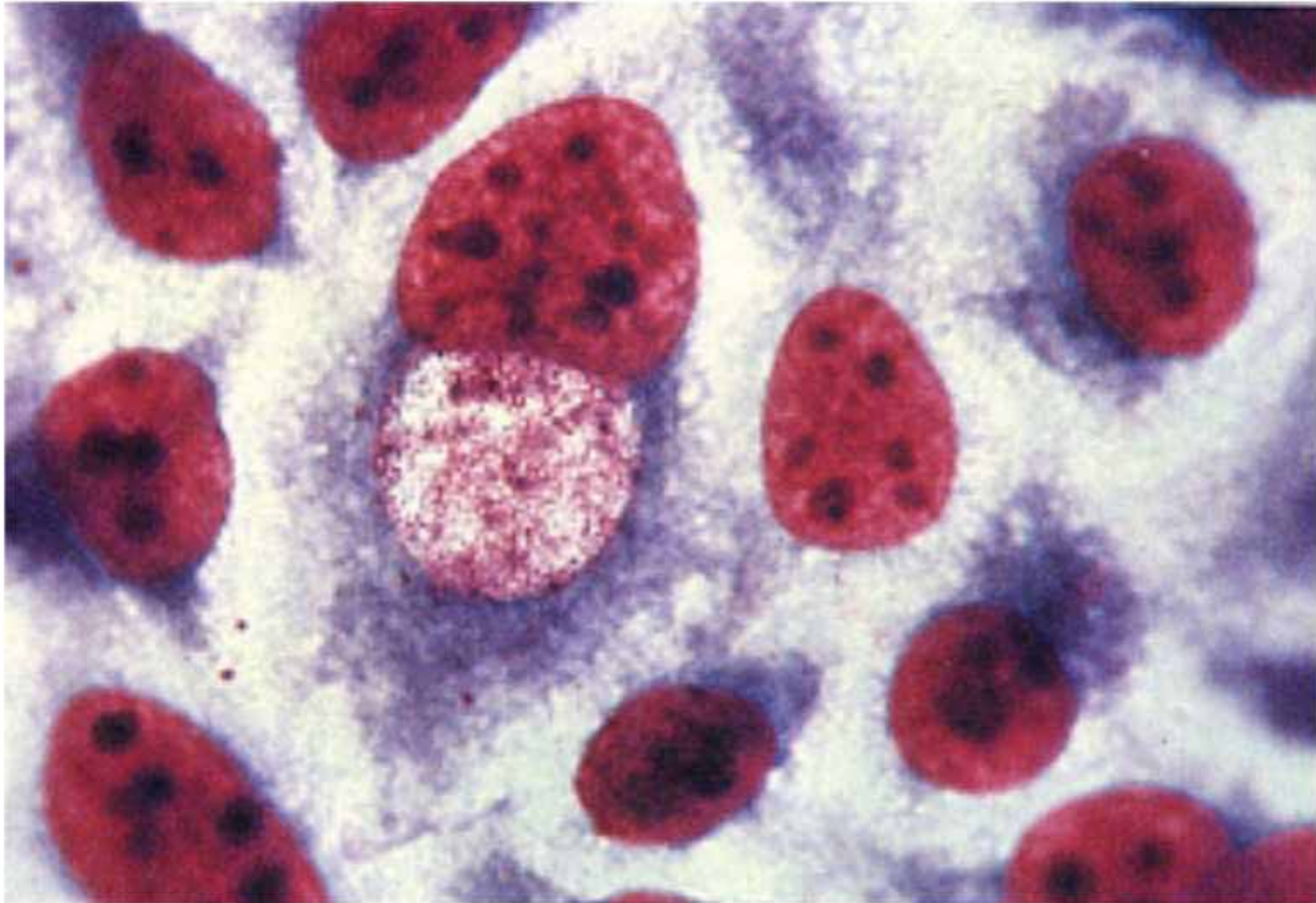
Overall numbers giving birth in their teens has dropped in the last 30 years

Probably mainly due to improved contraception



Advancing the age of puberty

Still 1 in 4 US teenagers contract a sexually transmitted disease



Advancing the age of puberty

Still 1 in 4 US teenagers contract a sexually transmitted disease

Sexual activity has mainly increased and age of first sex decreased



Advancing the age of puberty

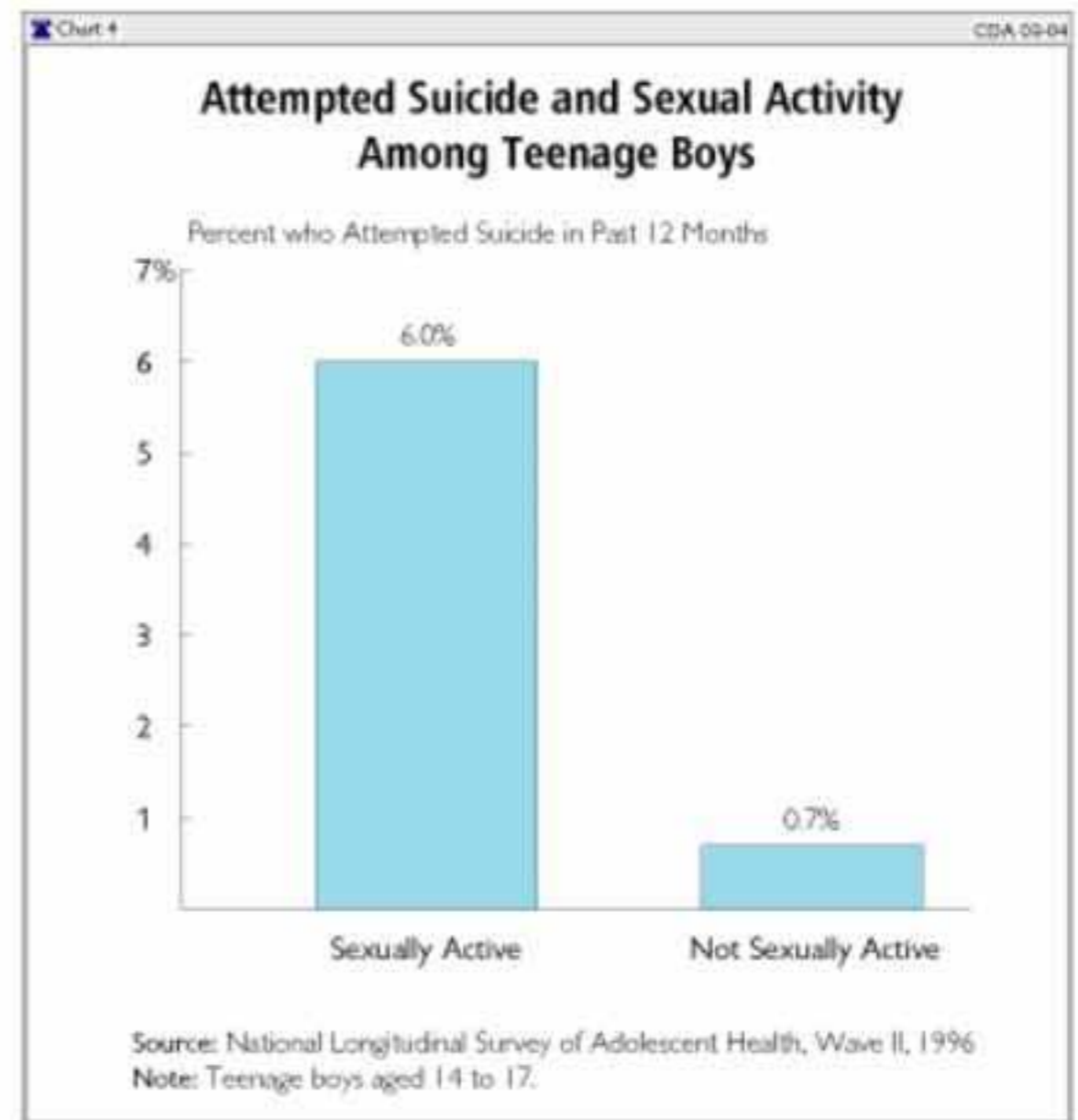
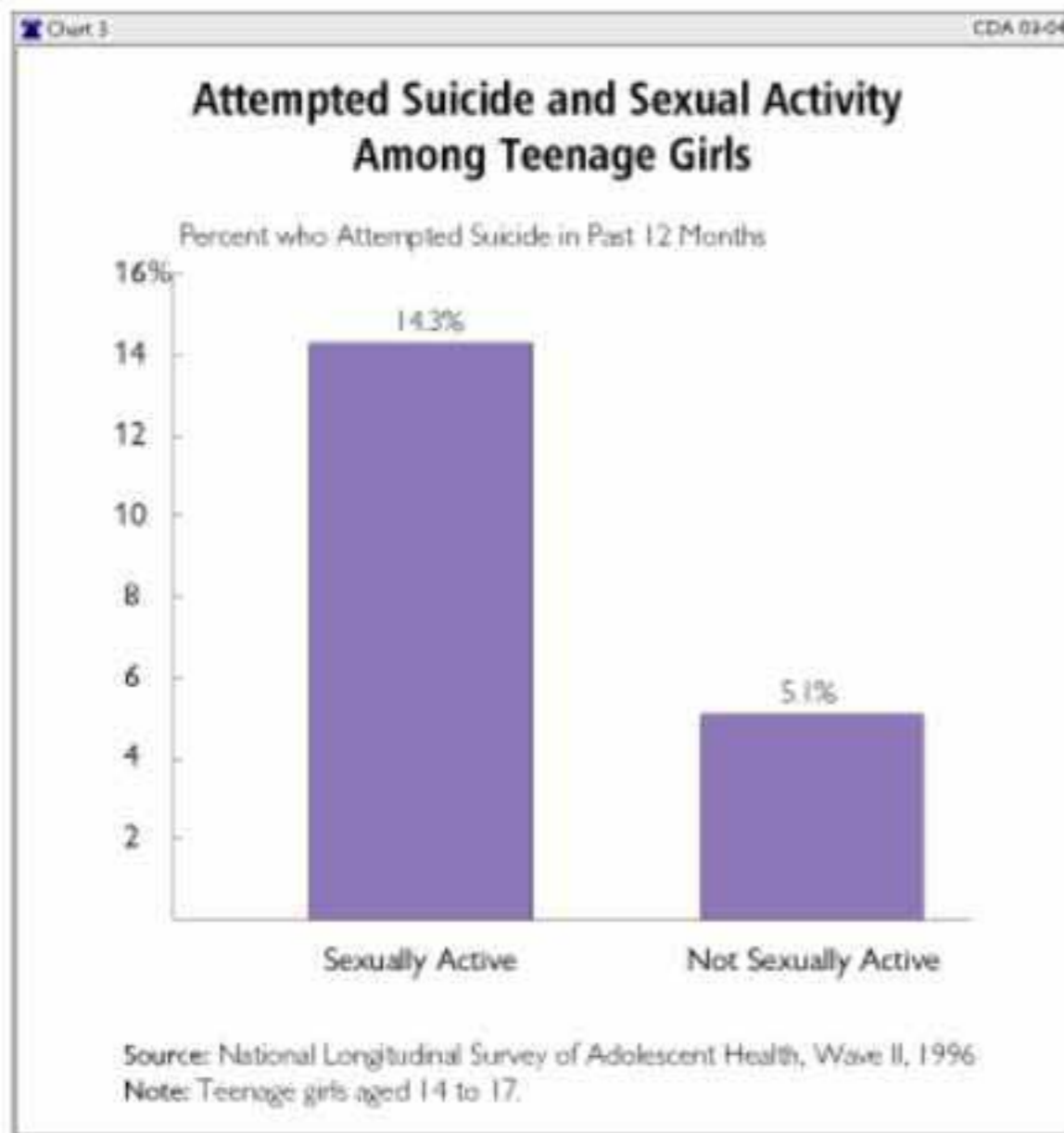
The long term effects are difficult to assess

Blue shading indicates that differences for individual countries are statistically significant at the 5 per cent level.

	Less than upper secondary education		Not working (inactive or unemployed)		Without partner		Neither woman nor partner working		Household income in lowest 20 per cent	
	15-19	20-29	15-19	20-29	15-19	20-29	15-19	20-29	15-19	20-29
NETHERLANDS	50	22	53	42	13	7	31	7	78	26
ITALY	77	52	64	54	15	3	18	5	36	20
SPAIN	80	59	70	66	20	7	27	12	35	22
DENMARK	65	17	46	25	16	12	22	6	24	8
FINLAND	24	9	42	27	11	5	13	8	29	17
FRANCE	62	24	61	35	16	10	18	6	51	18
BELGIUM	52	22	55	27	24	8	32	7	45	19
GREECE	74	35	61	55	4	6	6	6	30	17
GERMANY	57	24	60	36	18	10	24	5	54	21
AUSTRIA	52	23	30	31	13	12	6	4	31	24
IRELAND	73	37	69	51	42	14	46	14	41	23
PORTUGAL	92	78	37	32	15	7	8	4	26	16
UK	65	37	61	37	39	15	43	14	53	23
ALL COUNTRIES	67	34	59	41	23	19	26	8	45	21
AVERAGE DIFFERENCE	33		18		4		18		24	

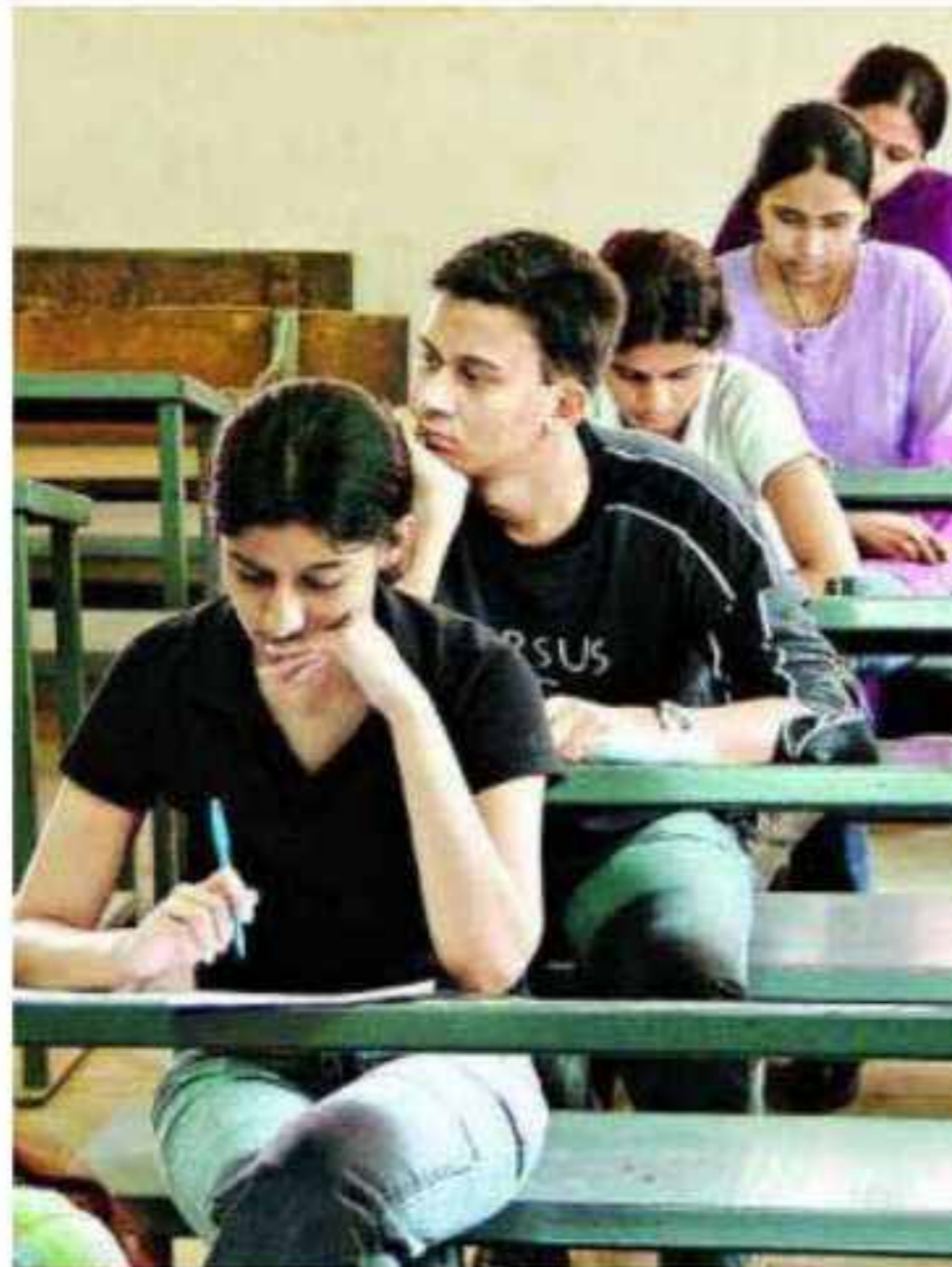
Advancing the age of puberty

US survey claims sexually active teenagers are more likely to be depressed and attempt suicide



The age of formal education

UK education systems are amongst the highest pressure ones in the world



The age of formal education

UK education systems are amongst the highest pressure ones in the world

Education chiefs admit we maybe overdoing amount of formal assessments

BBC NEWS

You are in: **Education**

Friday, 29 November, 2002, 19:06 GMT

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Too much testing - says exams chief





A-level row

▶ [Click for more on all the 2002 results](#)

Latest news

- ▶ Variations 'not unusual'
- ▶ £6m for extra markers
- ▶ 'Too many exams'
- ▶ This is an A-level
- ▶ New row over grades
- ▶ Standards confusion
- ▶ 'More strife ahead'

The age of formal education

UK education systems are amongst the highest pressure ones in the world

Education chiefs admit we maybe overdoing amount of formal assessments

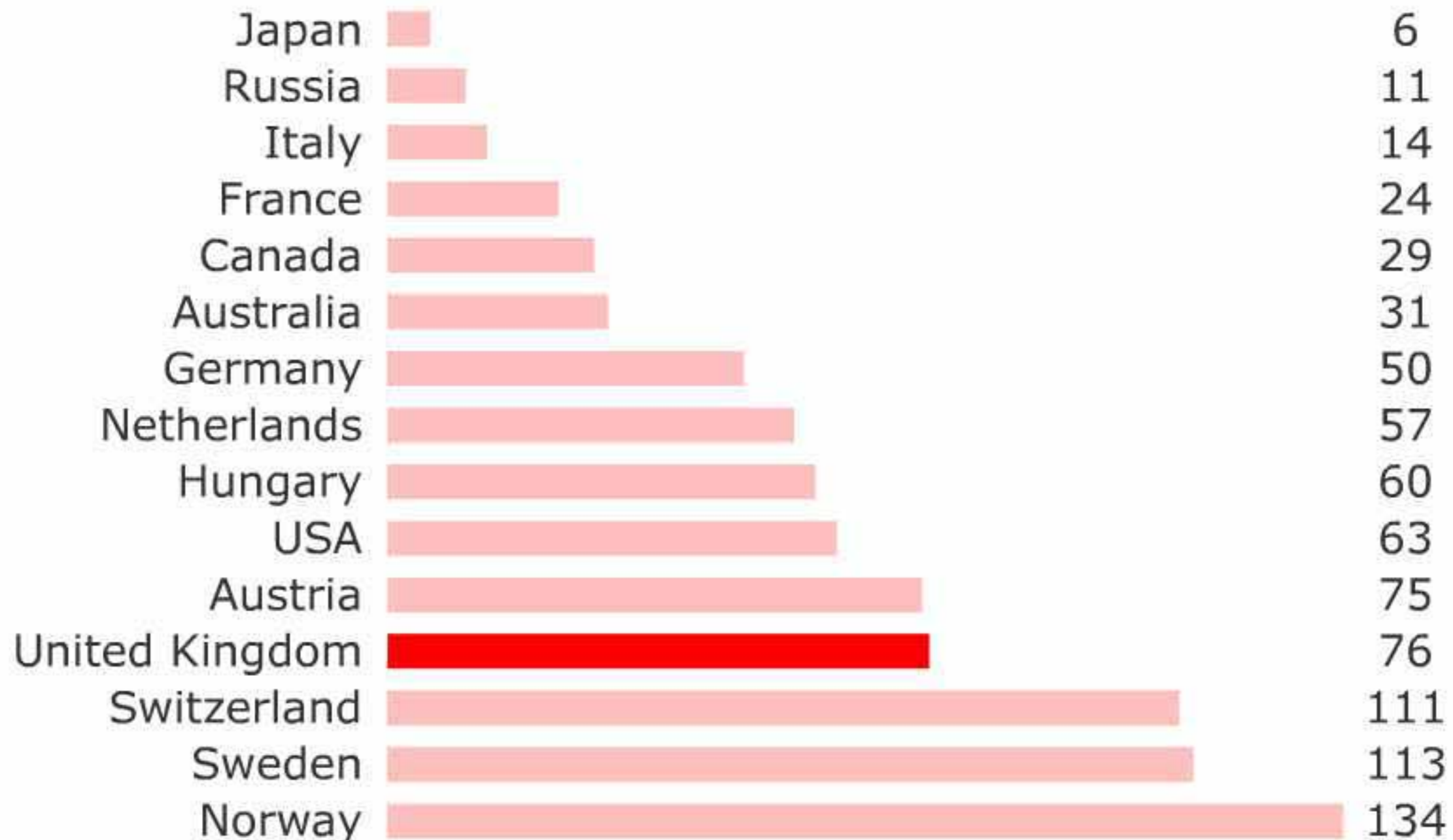
We start formal education 2-3 years earlier than many countries



The age of formal education

Still does not get us to the top of the tree for Nobel Prizes per capita

Nobel prizes per 100 million capita



The age of formal education

No real evidence that starting early is better



The age of formal education

No real evidence that starting early is better

Finishing early may get one on employment ladder earlier



Teenage Behavioural and Emotional problems

In most developed countries conduct problems, depression and suicide in young people are increasing

Must be the result of an altered environment

Journal of Child Psychology and Psychiatry 45:8 (2004), pp 1350–1362

doi: 10.1111/j.1469-7610.2004.00335.x

Time trends in adolescent mental health

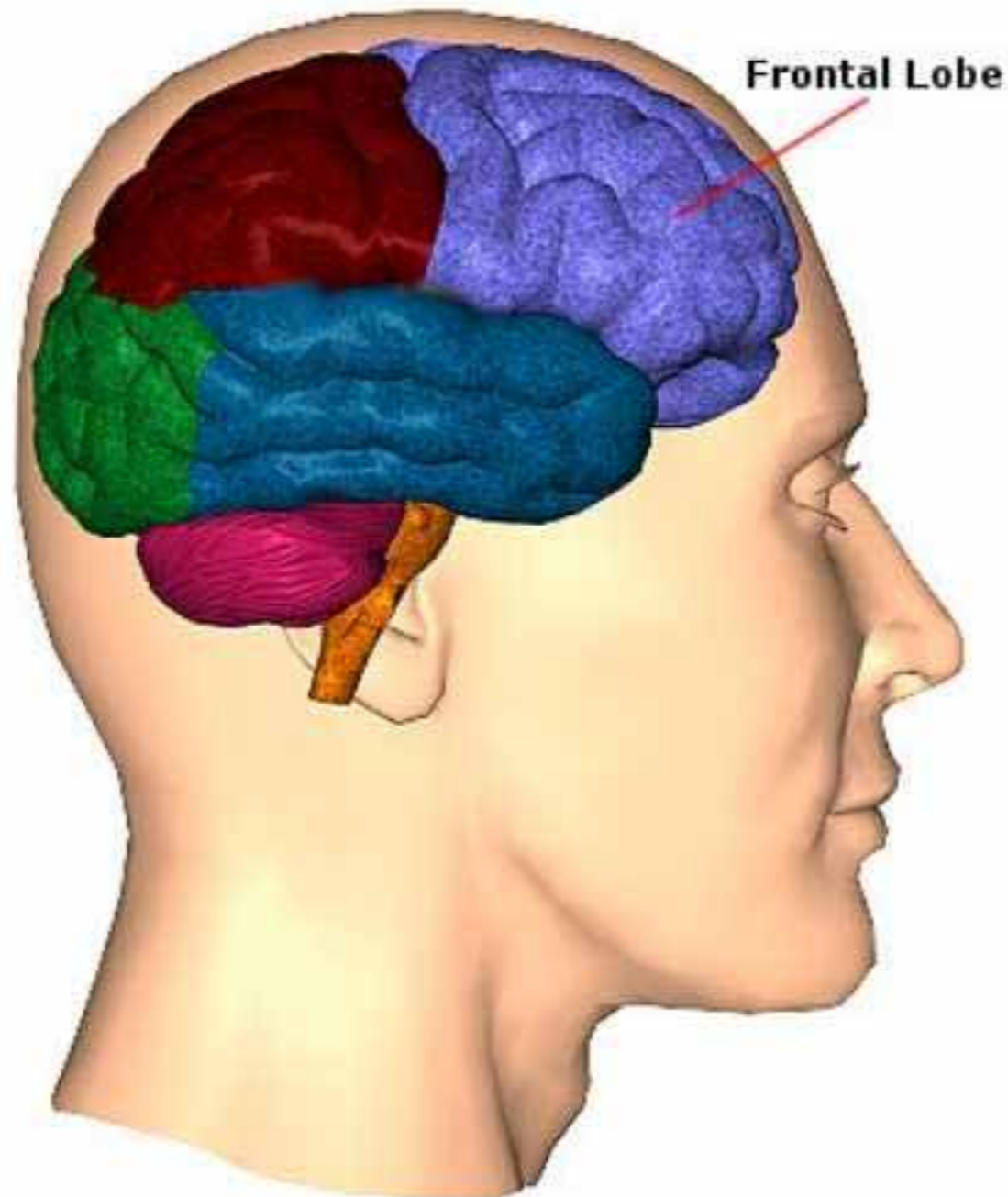
Stephan Collishaw,¹ Barbara Maughan,¹ Robert Goodman,² and Andrew Pickles³

¹MRC Social, Genetic, and Developmental Psychiatry Centre, Institute of Psychiatry, King's College London, UK;

²Department of Child and Adolescent Psychiatry, Institute of Psychiatry, London, UK; ³School of Epidemiology and Health Science, and Centre for Census and Survey Research, University of Manchester, UK

The teenage brain

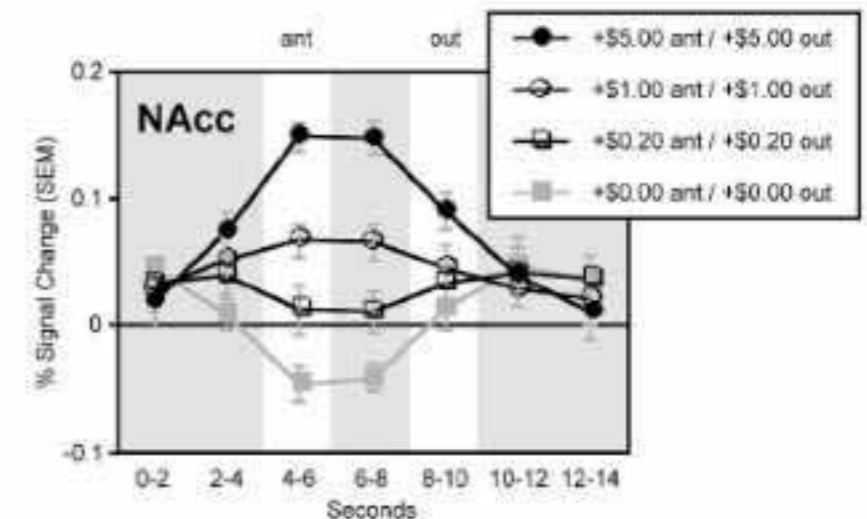
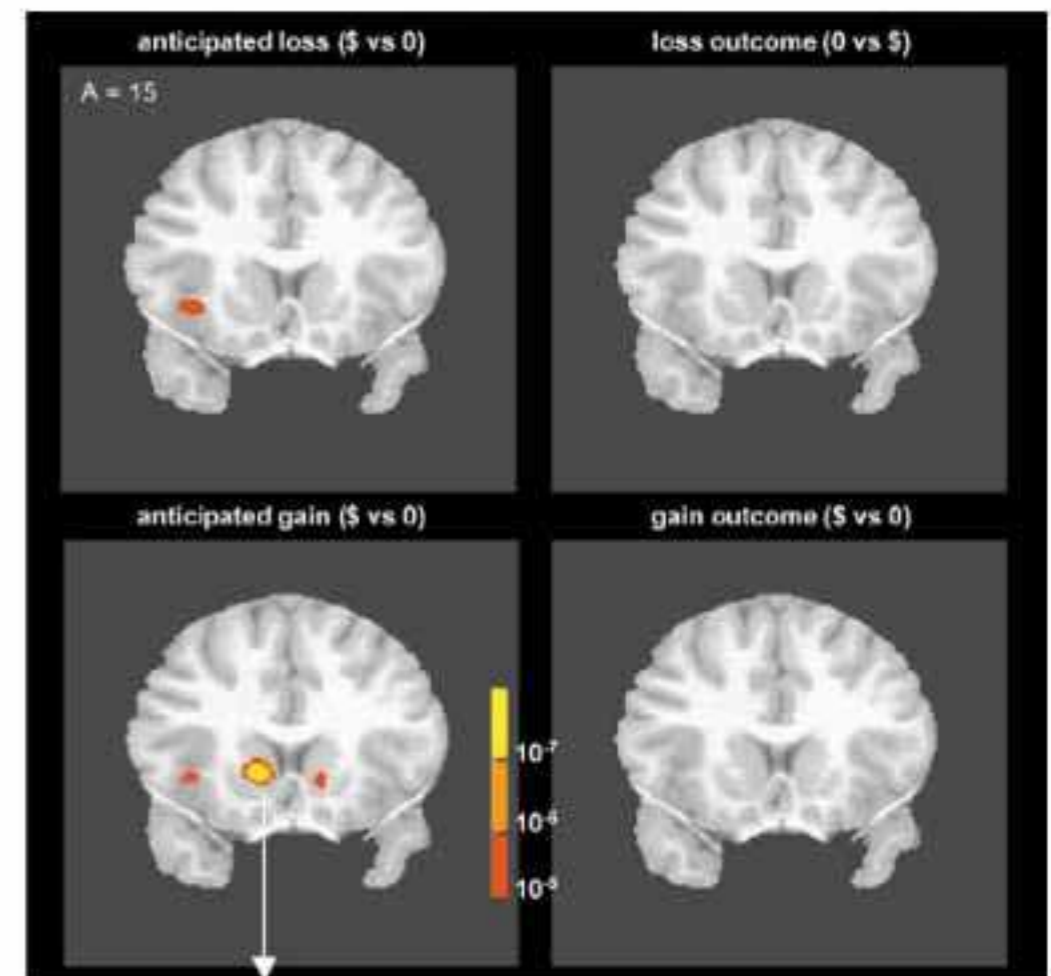
The frontal cortex is still developing up until at least the late teens



The teenage brain

The frontal cortex is still developing up until at least the late teens

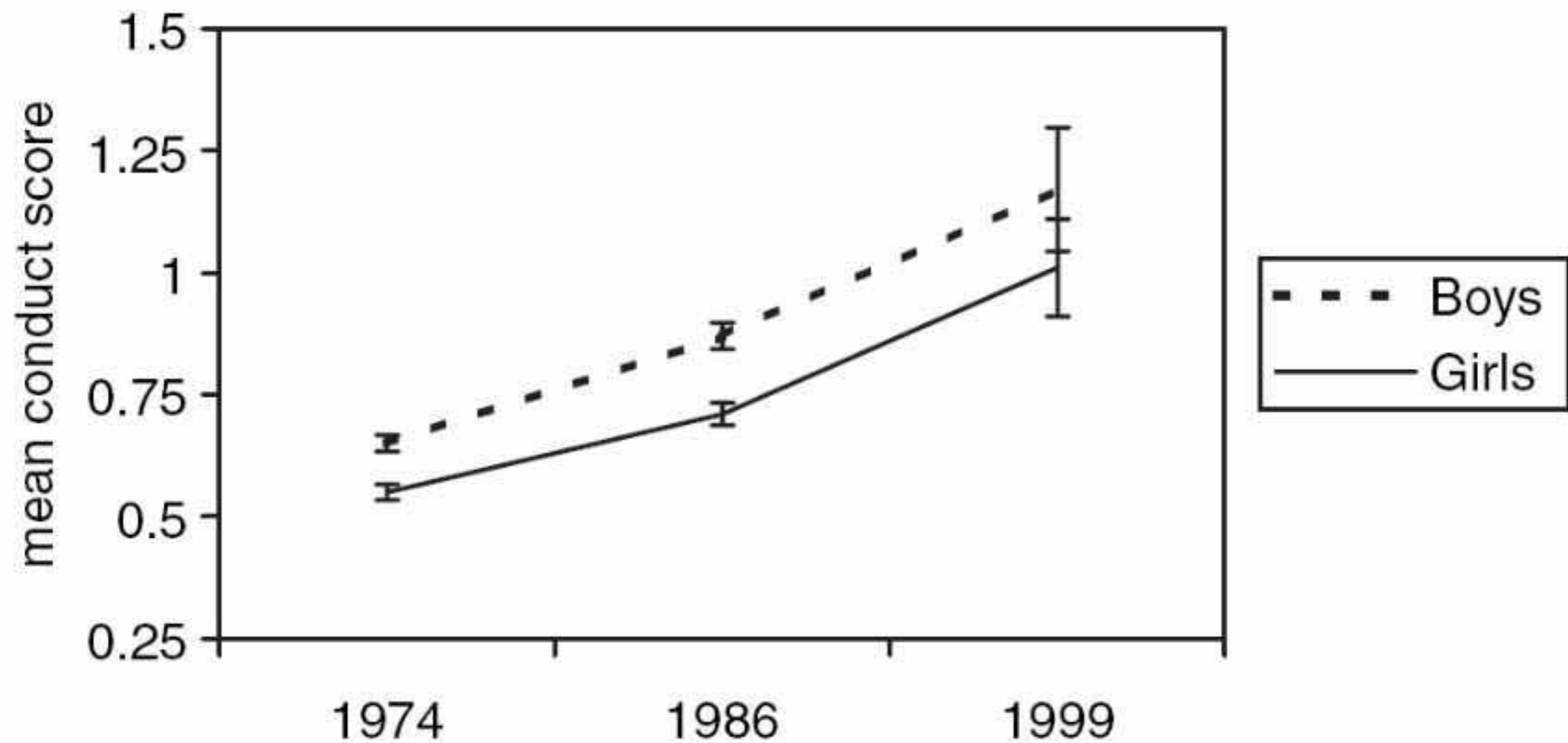
Reward areas of brain are not as responsive as in adults



Knutson *et al* 2003

Antisocial behaviour and violence

Substantial increase in adolescent conduct problems in both sexes



Collishaw *et al* 2004

Antisocial behaviour and violence

Substantial increase in adolescent conduct problems in both sexes

Twin studies reveal a 59% environmental influence on antisocial and violent behaviour



Antisocial behaviour and violence

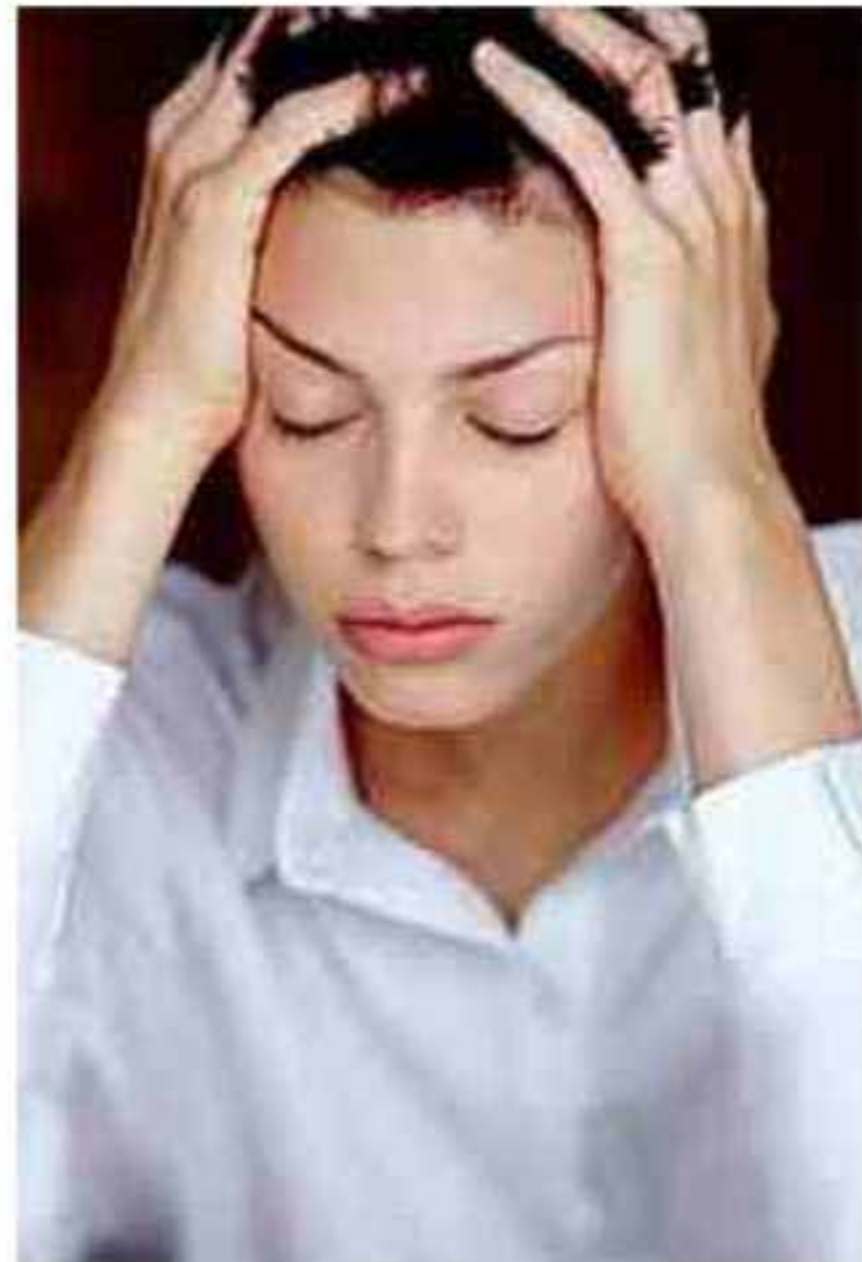
Substantial increase in adolescent conduct problems in both sexes

Twin studies reveal a 59% environmental influence on antisocial and violent behaviour

43% is due to non-shared environmental factors

Depression and anxiety

The number of teenagers with emotional problems is also increasing



Depression and anxiety

Major depressive disorder occurs in 2-4% of young children (>8)

In adolescents rises to 4-8% and is more common in girls

Most episodes of depression in adolescents last less than 9 months

There is a recurrence in 70% within 5 years

One-third will have recurrent episodes during adulthood



Depression and anxiety

30% of children with clinical depression develop bipolar affective disorder within 5-10 years



Depression and anxiety

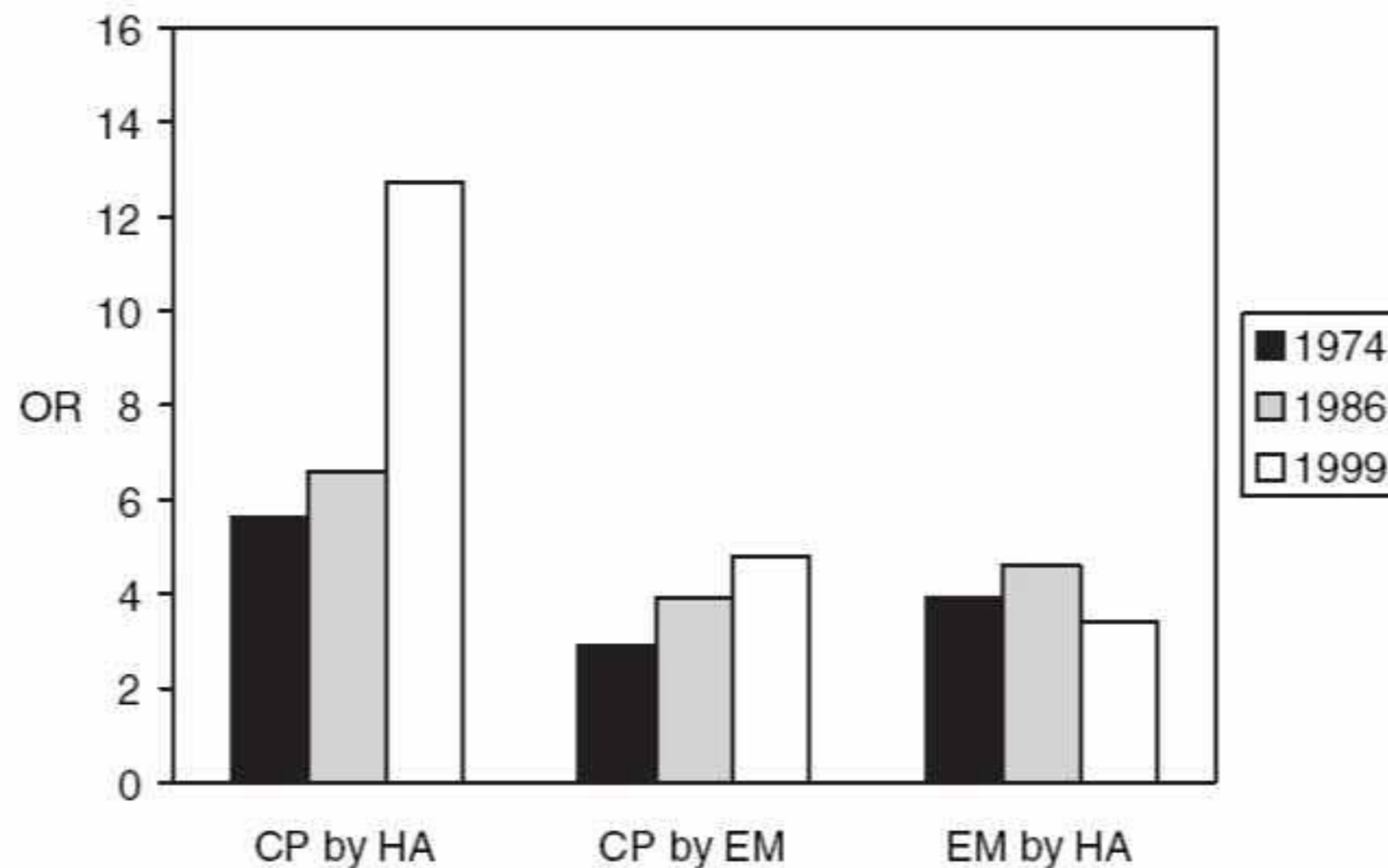
30% of children with clinical depression develop bipolar affective disorder within 5-10 years

Anxiety disorders affect 5-18% of all children and adolescents



Depression and anxiety

50% show co-morbidity with more than one disorder or depression

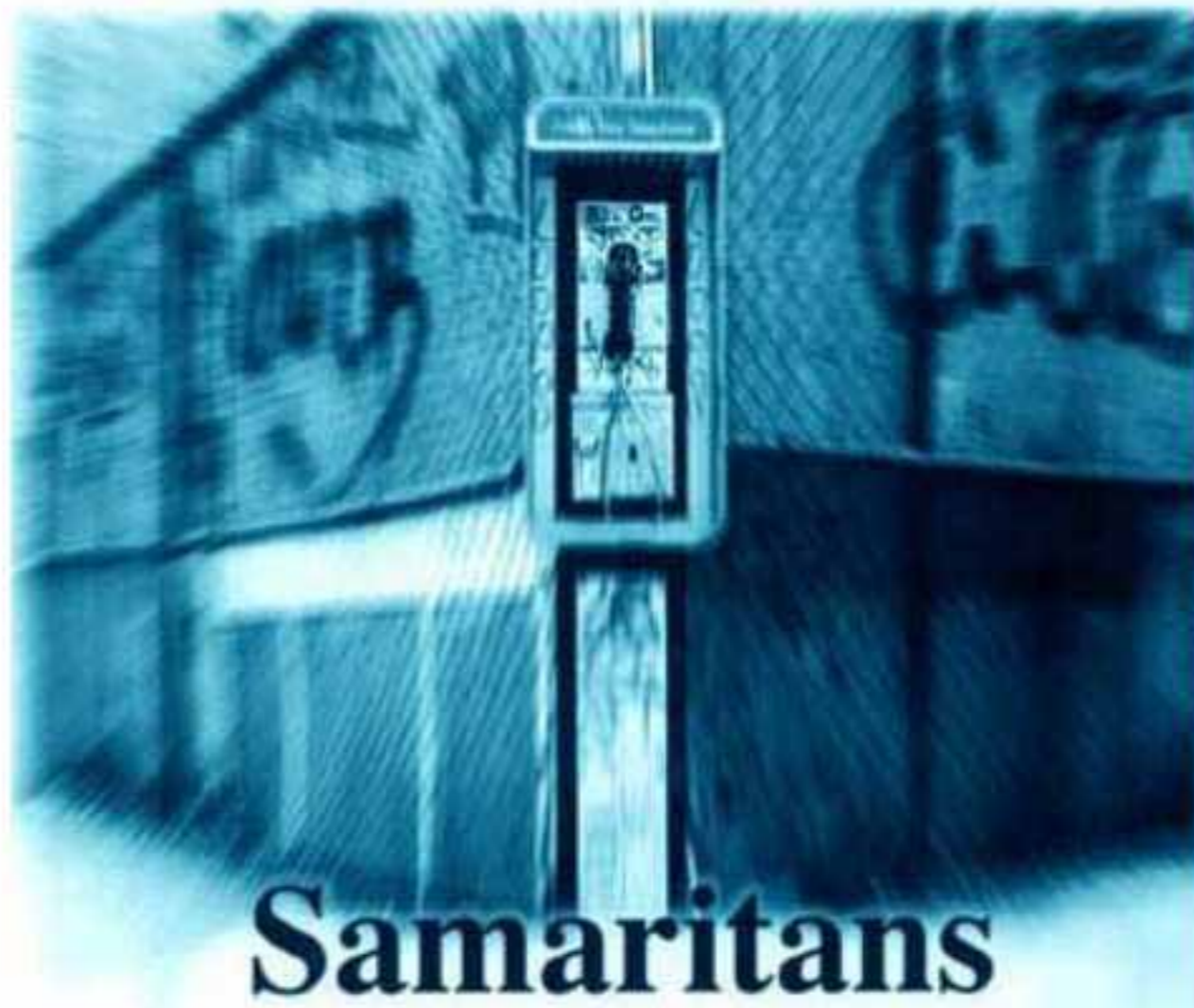


Collishaw *et al* 2004

Suicide

50% of individuals with depression will attempt suicide at some stage

It's Your Call . . .

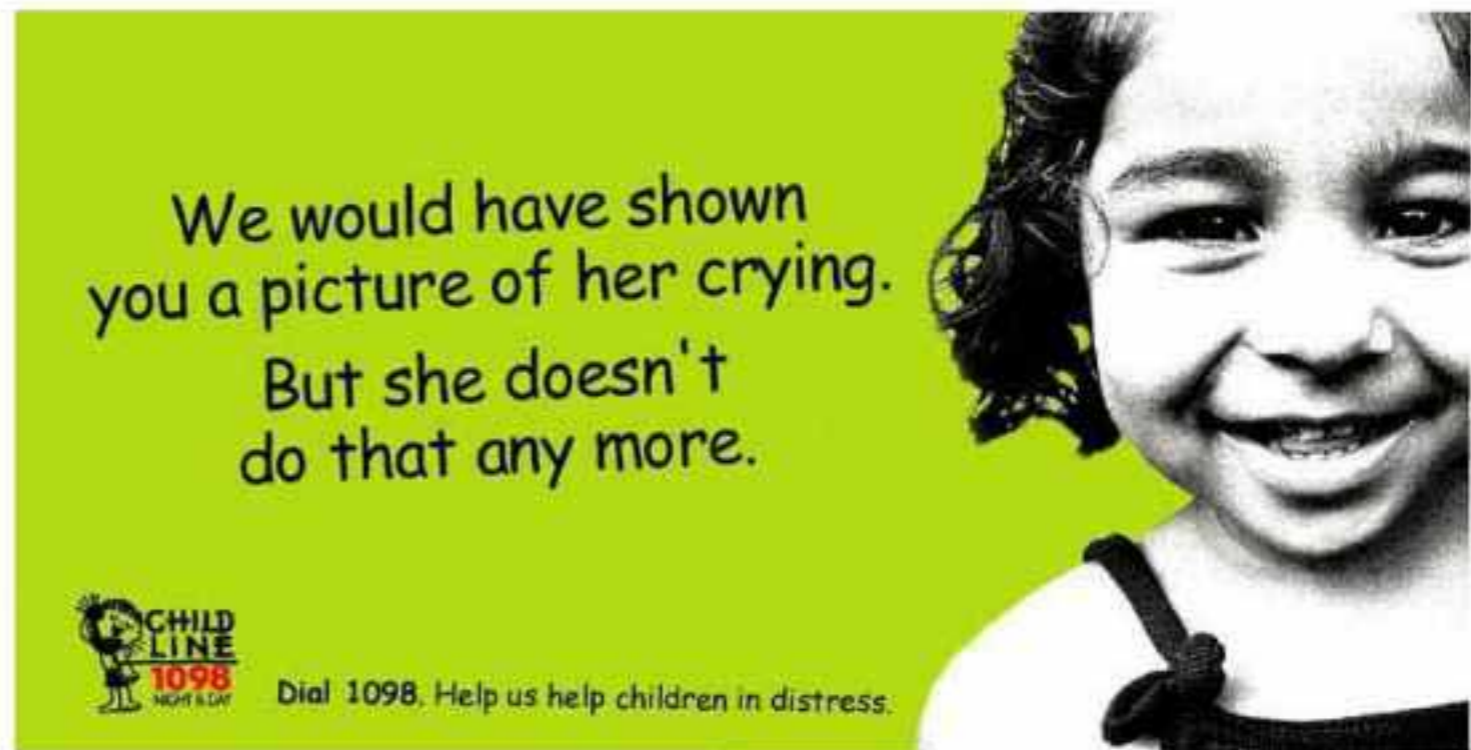


Samaritans

Suicide

50% of individuals with depression will attempt suicide at some stage

Childline - 1000 children considered suicide last year - a 14% increase



Suicide

50% of individuals with depression will attempt suicide at some stage

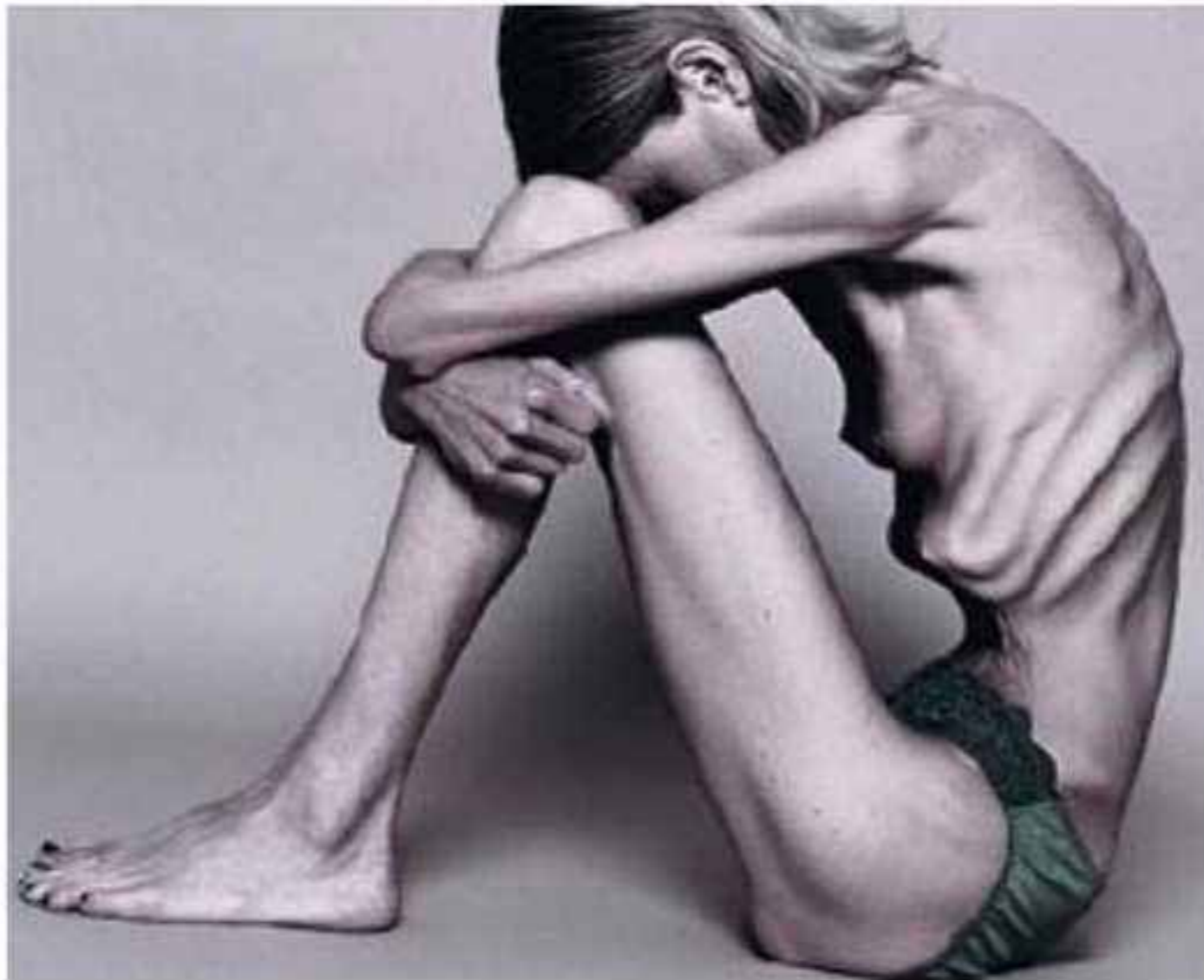
Childline - 1000 children considered suicide last year - a 14% increase

In the USA 2 million adolescents a year attempt suicide



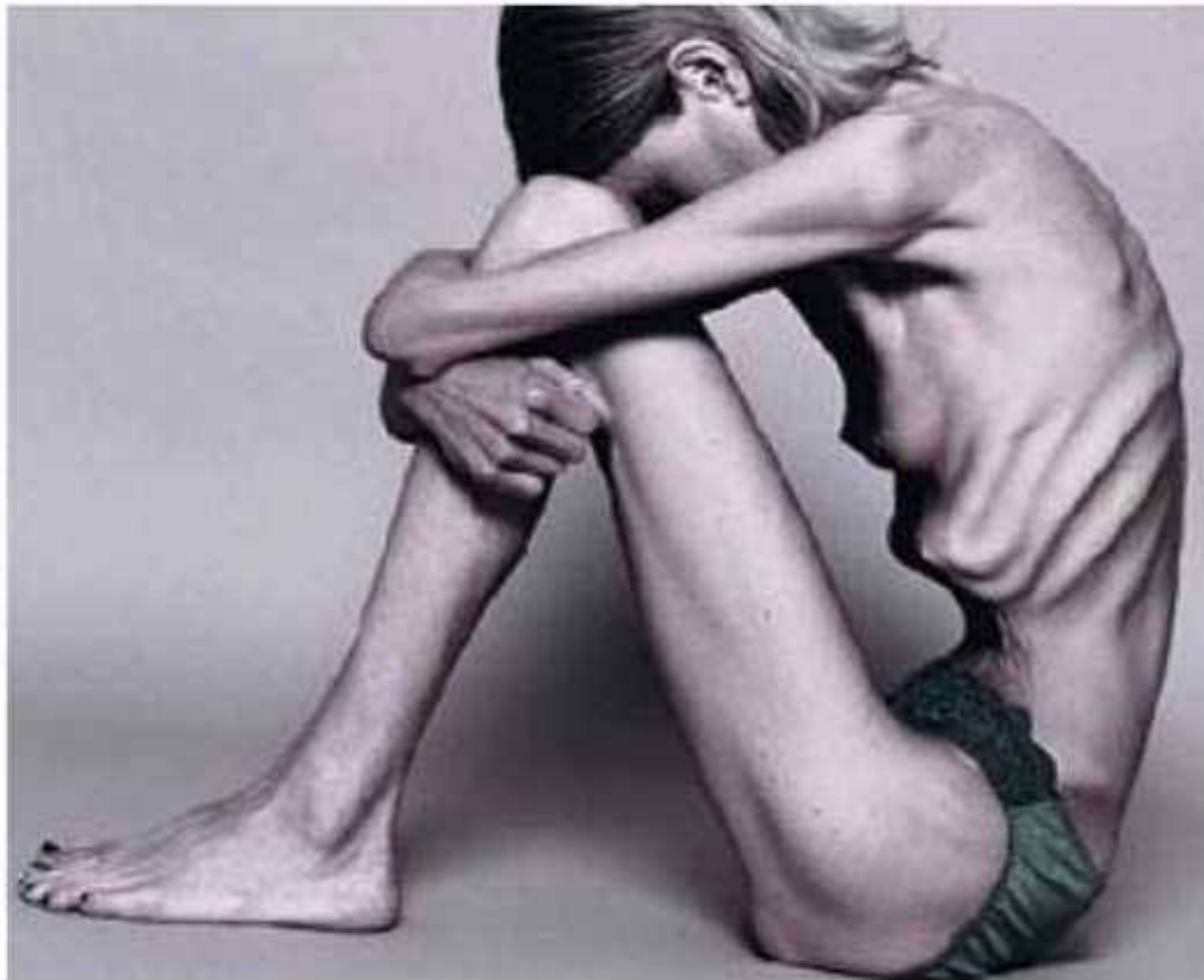
Eating disorders

Anorexia nervosa and bulimia also often coexist with depression and anxiety disorders



Eating disorders

Anorexia nervosa and bulimia also often coexist with depression and anxiety disorders



Can affect between 0.5 and 4.2% of females

Drug and alcohol abuse

From a NHS 2005 survey of 11-15 year olds published on 24th March 2006

During last month:

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Last Updated: Friday, 24 March 2006, 15:32 GMT
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'One in five pupils' tried drugs

One in five secondary school children tried drugs in the last year, figures from a national survey suggest.

A quarter told the Information Centre for Health and Social Care survey they had drunk alcohol in the last week.



Cannabis was the most used drug amongst the children surveyed

SEE ALSO:

- ▶ Arrested drug users young as 11 07 Mar 06 | Cornwall
- ▶ How do you get an 11-year-old off heroin? 30 Jan 06 | Magazine
- ▶ Teens 'as young as 14' run drugs 28 Nov 05 | UK

Drug and alcohol abuse

From a NHS 2005 survey of 11-15 year olds published on 24th March 2006

During last month:

11% said they had taken drugs (mainly cannabis)

9% had smoked at least one cigarette

22% drunk alcohol



Self-harm

Animals will often mutilate themselves when exposed to constant anxiety and stress



Self-harm

Animals will often mutilate themselves when exposed to constant anxiety and stress

Probably activates brain opioid and dopaminergic systems

Self-harming in humans: individuals cut, burn, scald, bang, scratch or poisoning themselves or pull their hair or even break their bones

Self-harm

Between 1 in 12 and 1 in 15 11-25 year-olds self harm



Self-harm

Between 1 in 12 and 1 in 15 11-25 year-olds self harm

800,000 in the UK population

142,000 A&E admissions a year and 50,000 actual hospital admissions

Can start as young as 7 or 8

One study reports at 1 in 5 15-17 year old girls self-harm

Truth Hurts

Fact or fiction?

Suicide attempt
Group Activity
Stress
Manipulation
Isolation
Abuse
Personality disorder
Attention seeking
Anger
Bullying
Personality disorder
Attention seeking
Anger
Bullying
Personality disorder
Attention seeking
Anger
Bullying

Self-harm

Self-harming is not attention seeking but a coping strategy for dealing with mental and emotional distress

Shown by individuals who are bullied, have difficulties with social relationships and have low self-esteem



Self-harm

We're expected to be
good daughters/sons
good siblings
very good students
thin and beautiful
talented
and good friends

Constantly these expectations are far too high for
teenagers to meet and so we come to think it's
our own fault

Gradually we begin to hate ourselves for not being
able to meet society's expectations

Self-harm

My emotions can vary rapidly and be very intense

If in an emotionally charged situation,
I will either during or shortly after harm myself

I'm not good at dealing with emotions or
communicating mine to others

Self-harm

Pain works

Pain heals

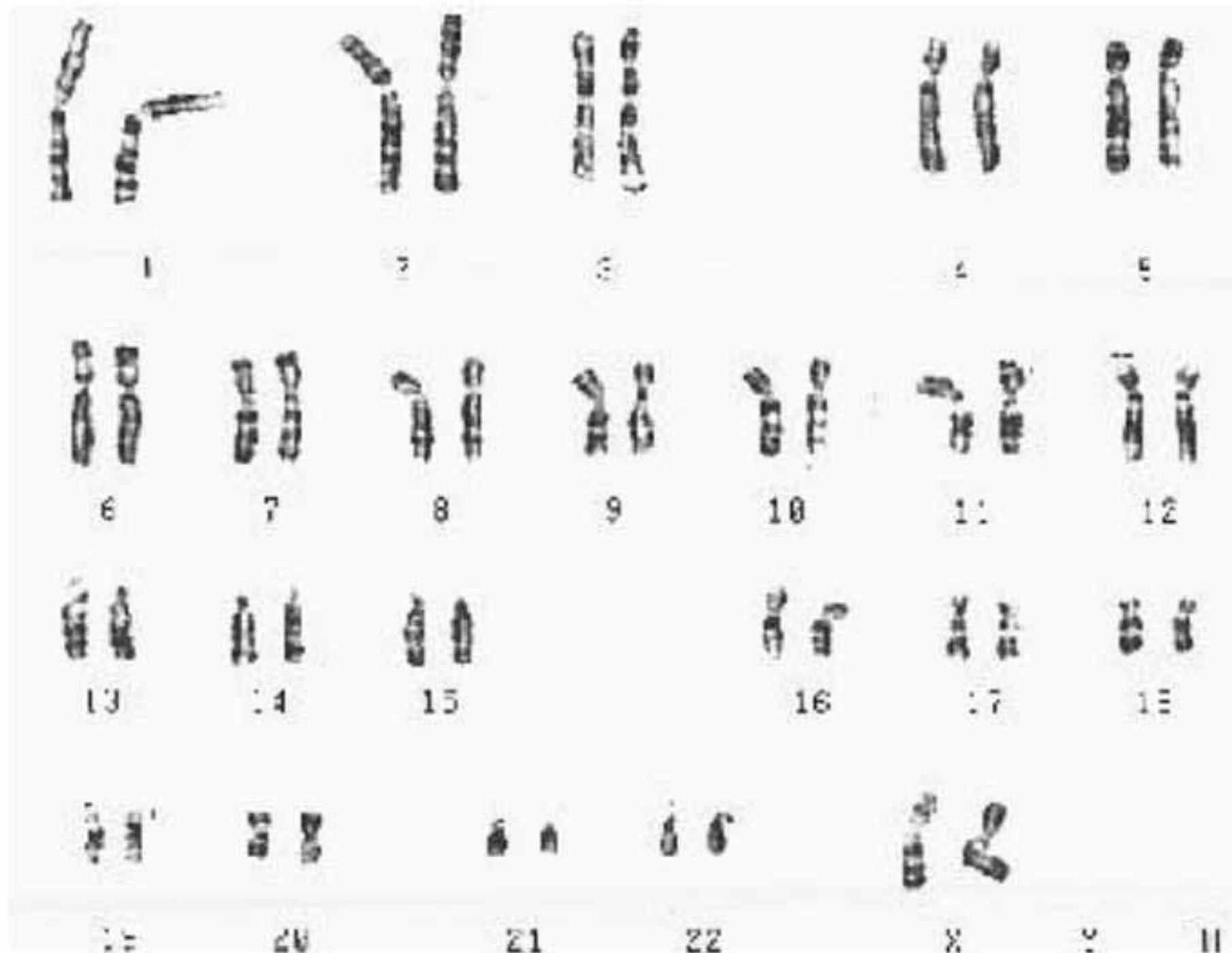
If I had never cut myself
I probably wouldn't still be around today

My parents didn't help me
religion didn't help me
school didn't help me

but self-harm did

Pre-disposition to risk

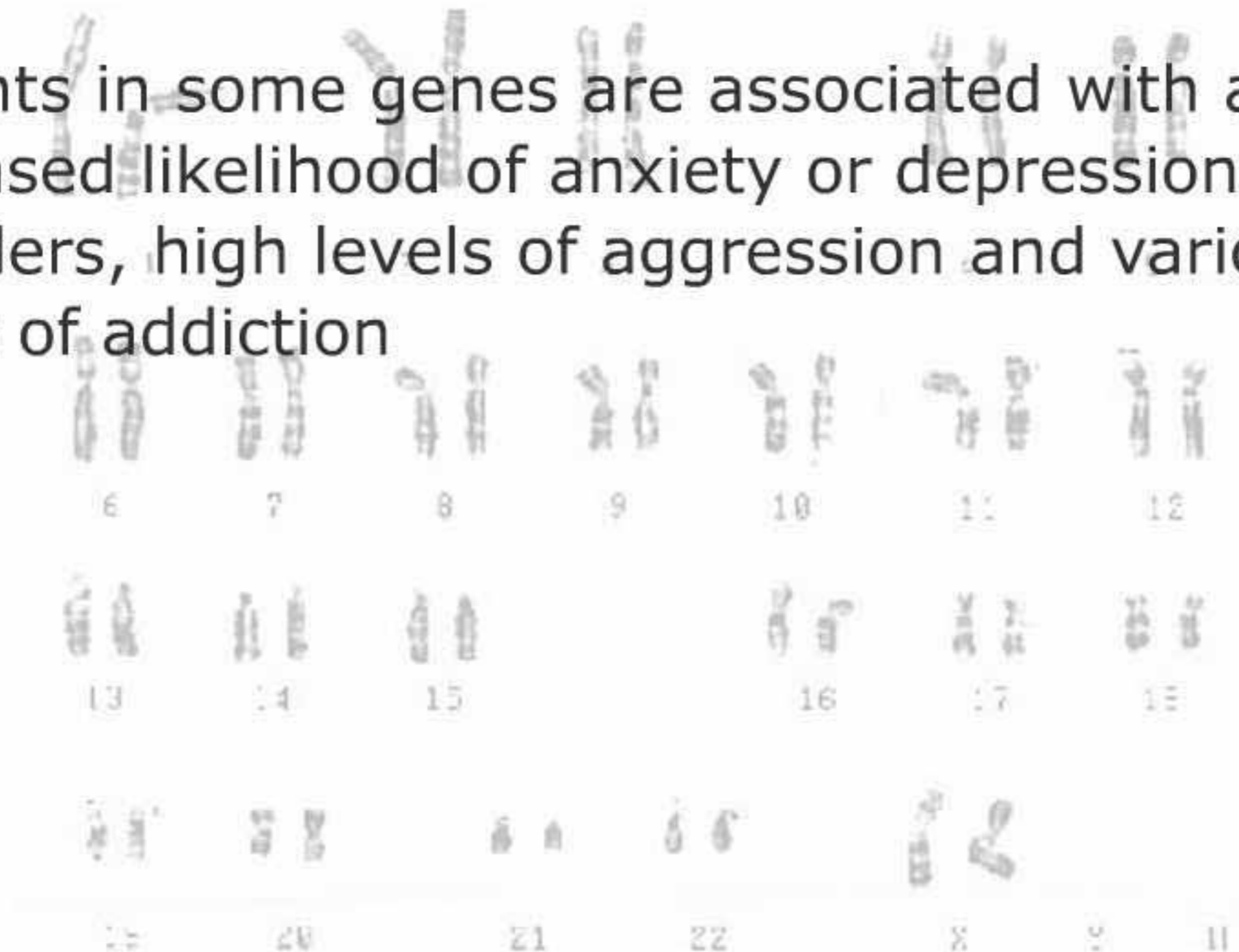
Are some individuals more predisposed to risk than others?



Pre-disposition to risk

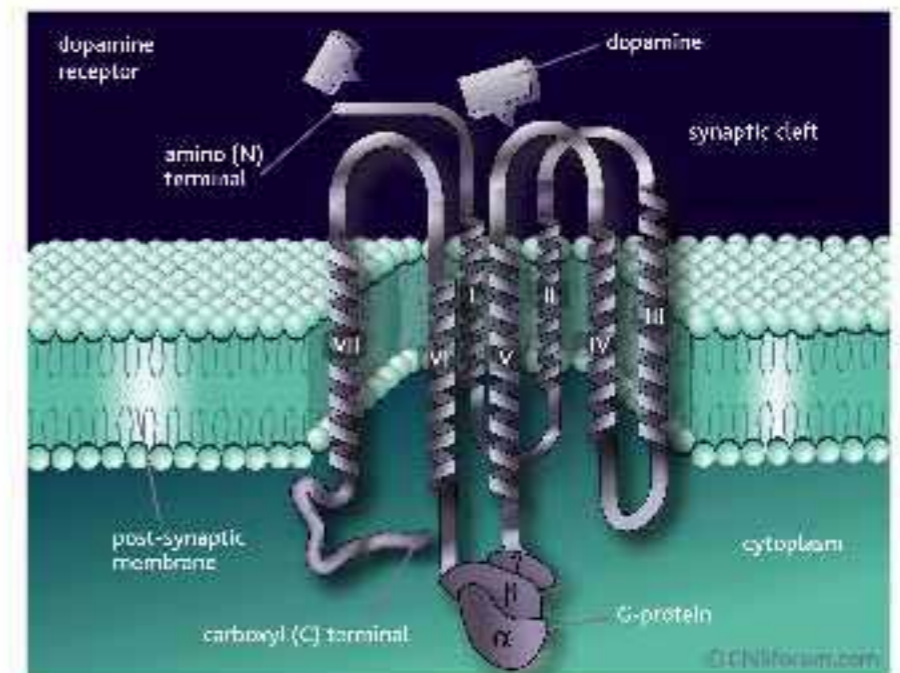
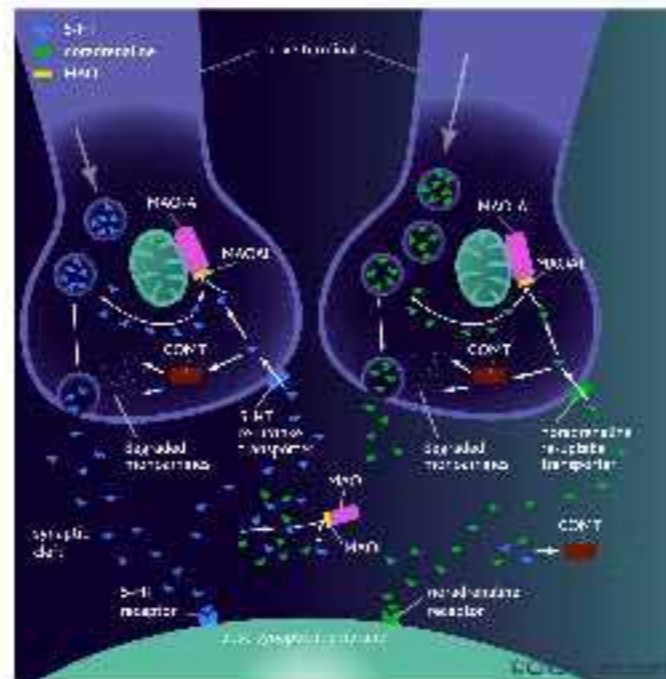
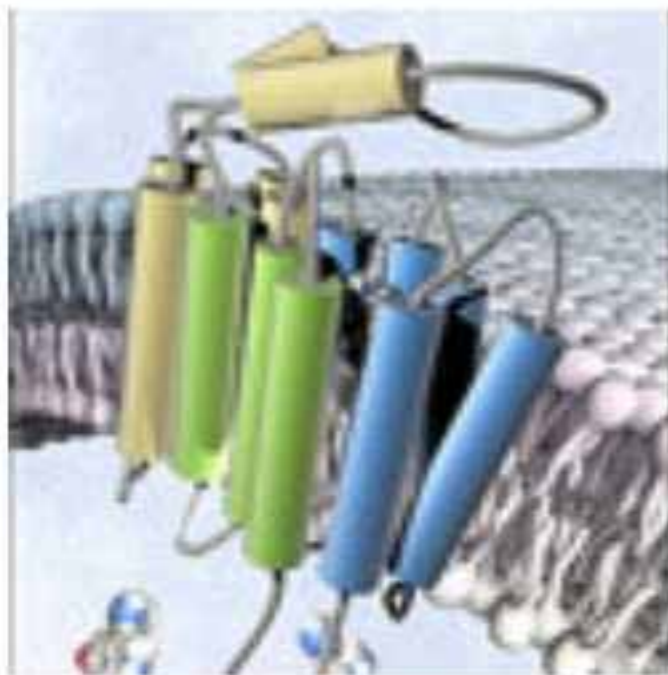
Are some individuals more predisposed to risk than others?

Variants in some genes are associated with an increased likelihood of anxiety or depression disorders, high levels of aggression and various forms of addiction



Pre-disposition to risk

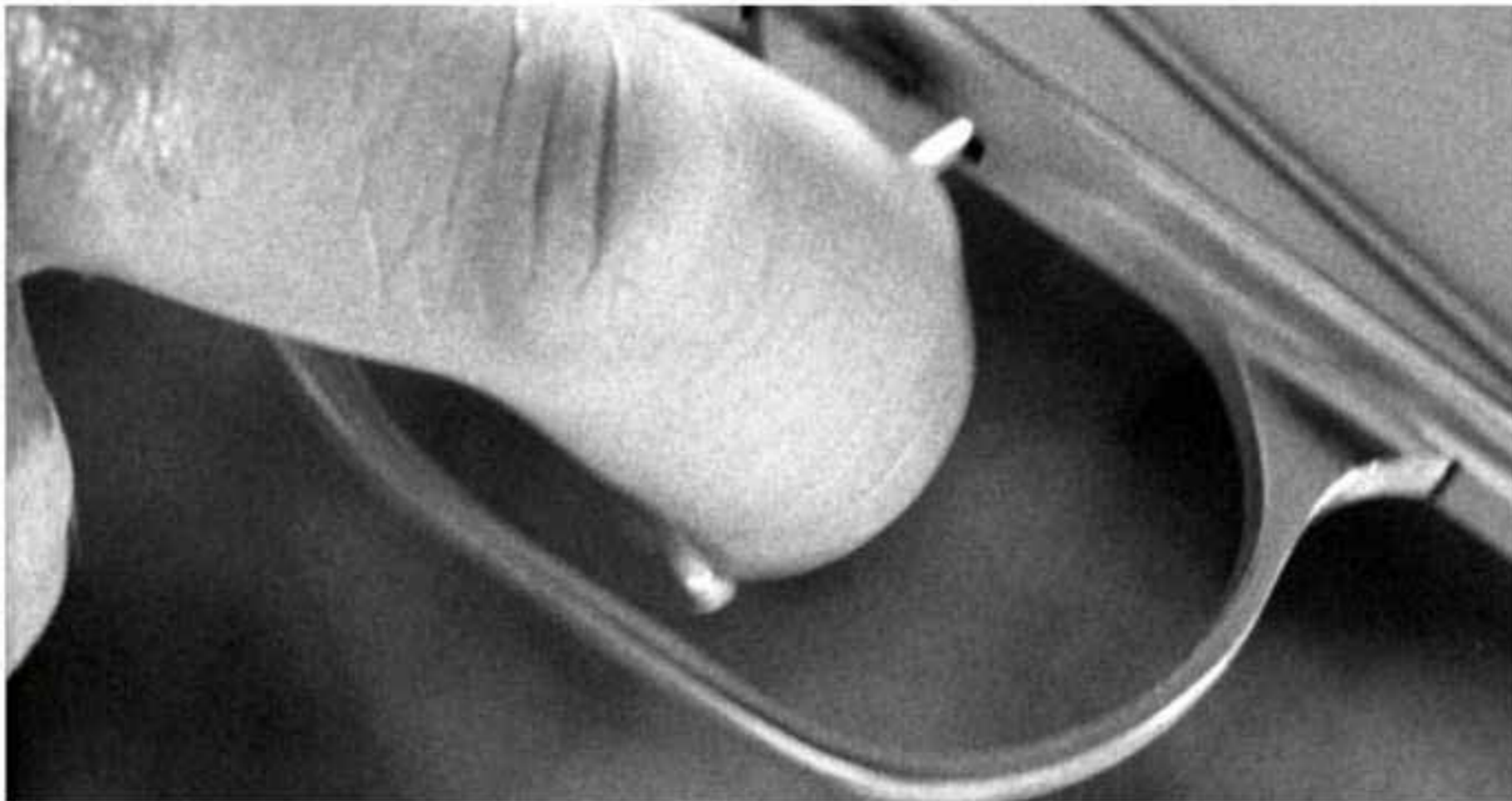
Serotonin transporter, monoamine oxidase A, the dopamine D4 receptor gene



Critical gene x environment interaction

Pre-disposition to risk

While some individuals are genetically predisposed to develop psychosocial problems the key trigger factors are primarily environmental



What, if anything, can we do about this?

This is very much a societal issue and as such there are few quick fixes



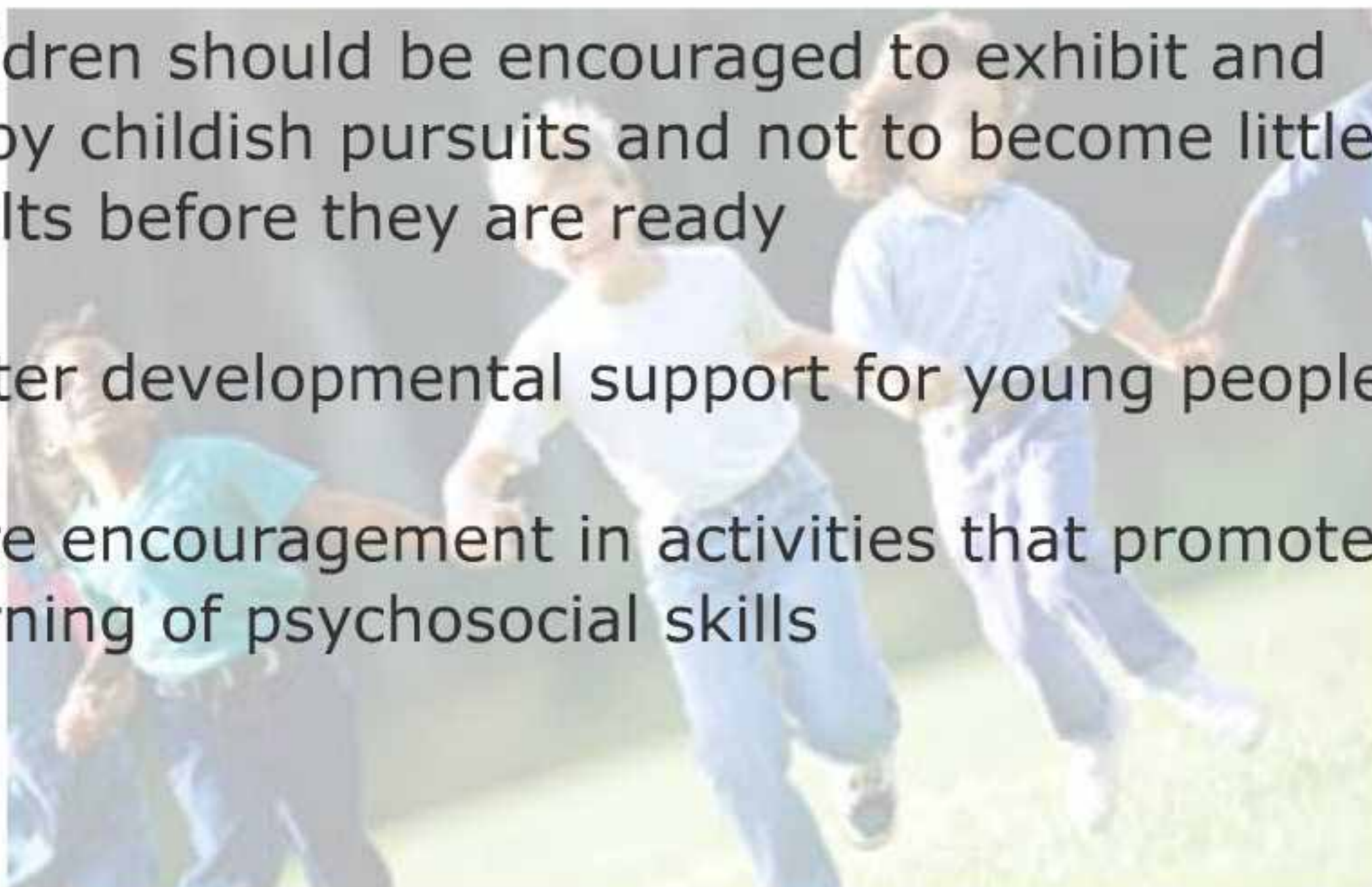
What, if anything, can we do about this?

This is very much a societal issue and as such there are few quick fixes

Children should be encouraged to exhibit and enjoy childish pursuits and not to become little adults before they are ready

Better developmental support for young people

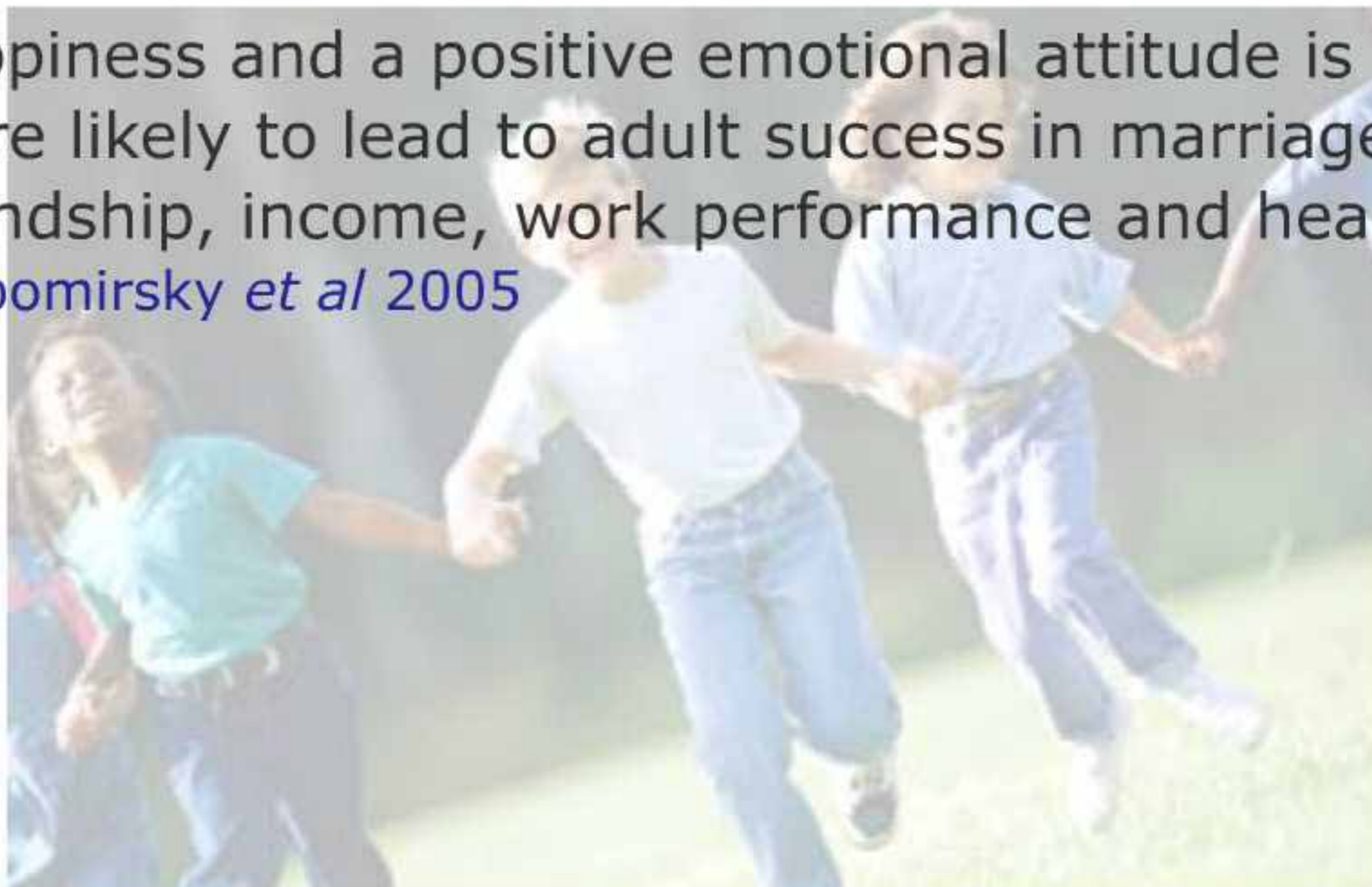
More encouragement in activities that promote learning of psychosocial skills



What, if anything, can we do about this?

Childhood should be a positive, happy and enjoyable phase of an individual's development

Happiness and a positive emotional attitude is more likely to lead to adult success in marriage, friendship, income, work performance and health
Lyubomirsky et al 2005

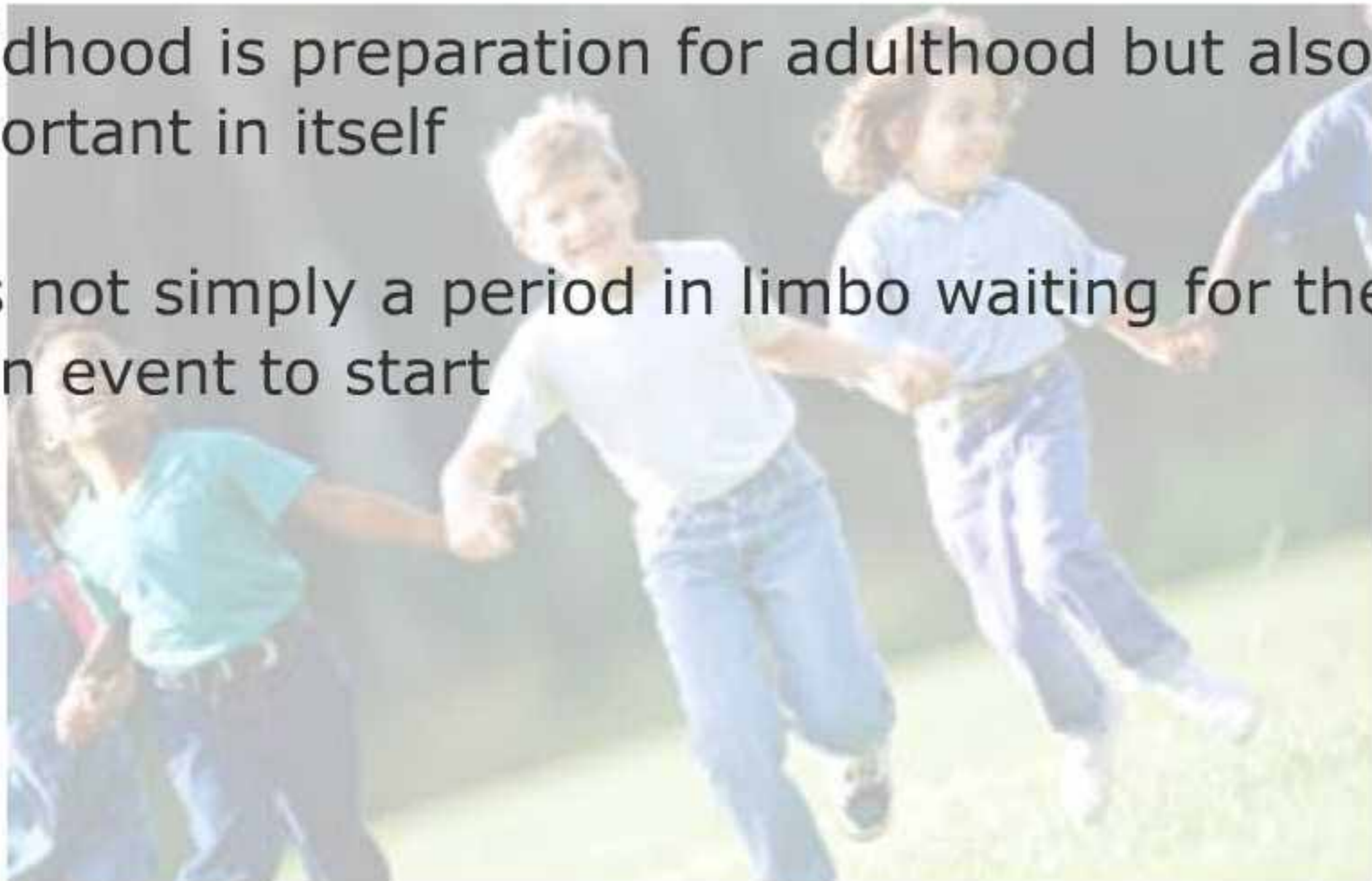


What, if anything, can we do about this?

We want future generations to see the glass half full rather than half empty

Childhood is preparation for adulthood but also important in itself

It is not simply a period in limbo waiting for the main event to start



Conclusions

Play is the work of childhood

Its nature changes to match needs of brain development

Play deprivation causes problems with sociosexual development

It may also impair release of peptides important for social bonds

Conclusions

The nature of play in modern society may not always be optimal

There is now a 5 year gap between reproductive and psychosocial maturity

Teen sex issues are still a problem, and may not make them happier

Is fast track education really an advantage?

Conclusions

The teenage brain needs appropriate stimulation otherwise it will find alternatives

Large increases in adolescent conduct problems

Increased adolescent depression and anxiety disorders

Increased drug and alcohol abuse

Increased levels of self harming

Conclusions

Children need more encouragement to act as children rather than adults

A happy childhood may help promote success as an adult...

...but perhaps there are still some adults who will never grow up

