Regional Centre for Child and Adolescent Mental Health

Eastern and Southern Norway

Barns medfødte temperament

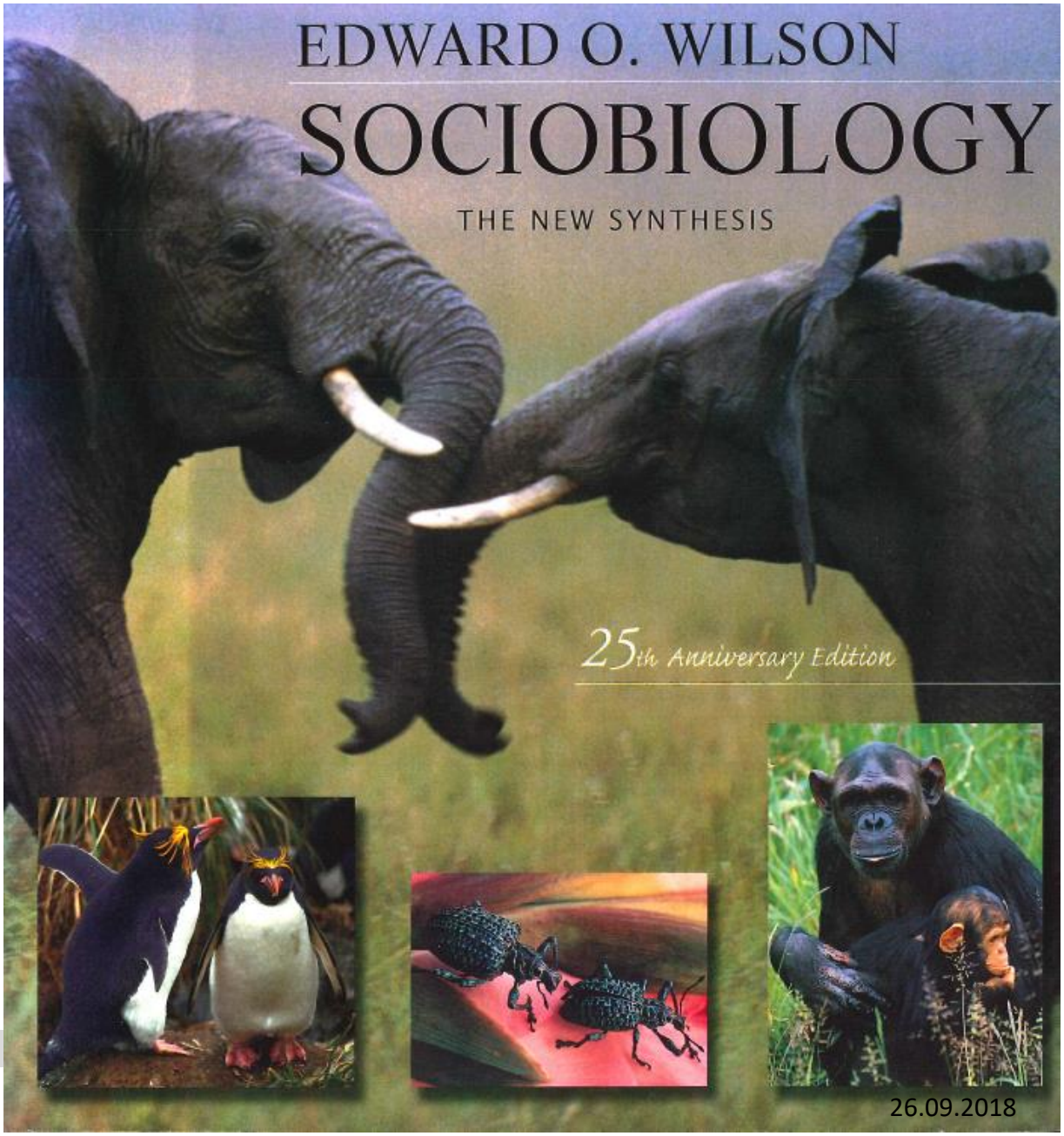
Kåre S. Olafsen

kso@r-bup.no

RBUP

Nature, Mr. Allnut, is what we were put in this world to rise above

Katherine Hepburn i *Afrikadronningen* (1951)


EDWARD O. WILSON
SOCIOBIOLOGY
THE NEW SYNTHESIS
25th Anniversary Edition

Bell, R. Q. (1968). A reinterpretation of the direction of effects in studies of socialization. *Psychological Review, 75,* 81-95.

Barns innflytelse på familiedynamikk

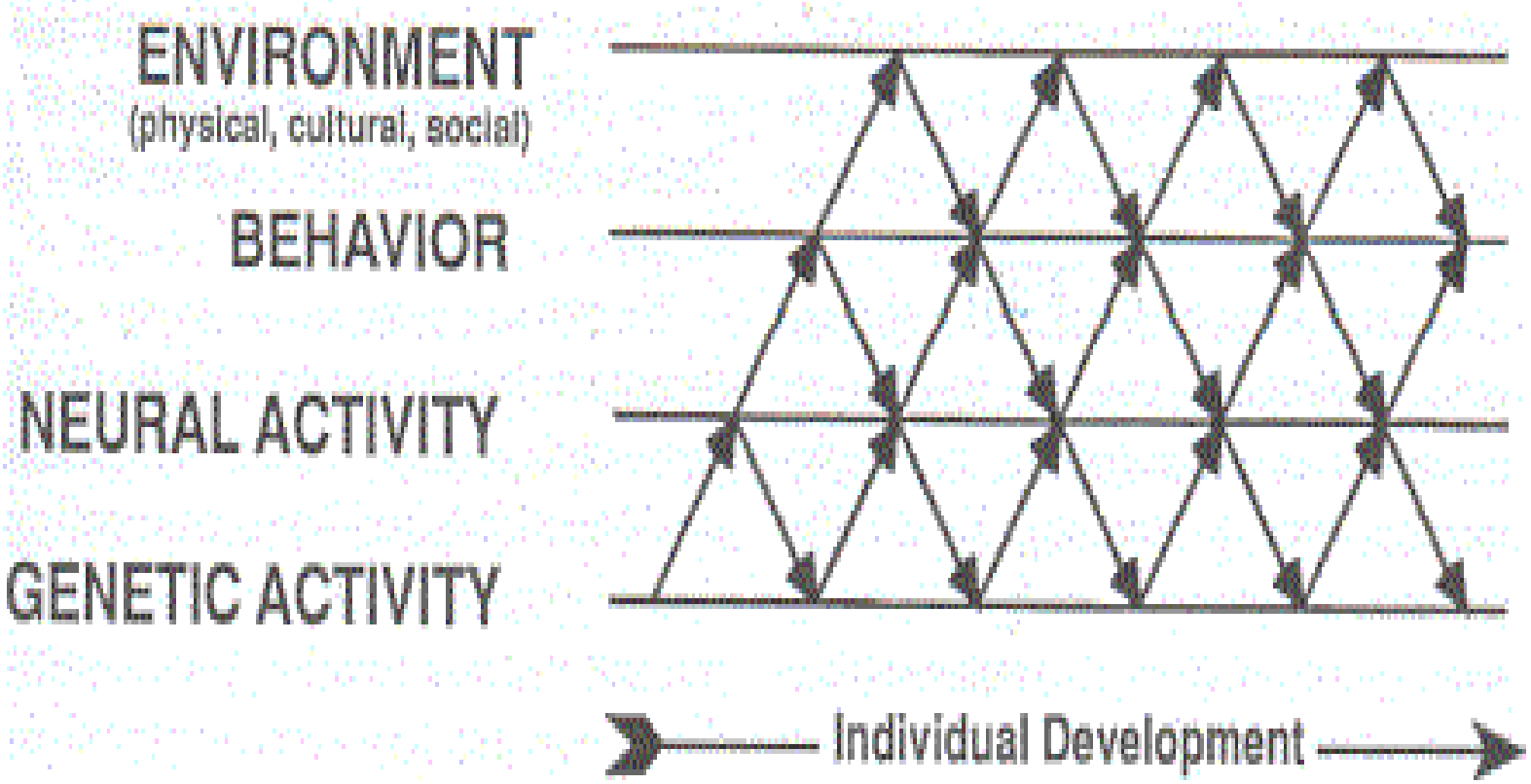
– den neglisjerte siden av familierelasjoner

(Crouter & Booths, 2003)

Temperament traits are early emerging basic dispositions in the domains of *activity*, *affectivity*, *attention*, and *self-regulation*, and these dispositions are the product of complex interactions among genetic, biological, and environmental factors across time

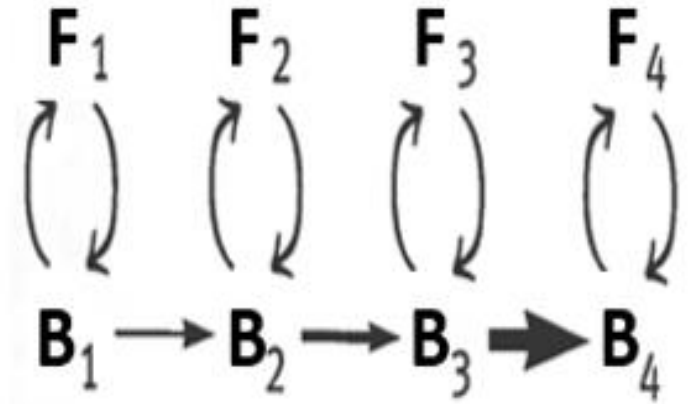
Shiner m.fl., 2012

BIDIRECTIONAL INFLUENCES



Fenotypiske karakteristika er alltid produktene av kontinuerlig utvikling og interaksjon mellom genetiske og miljømessige faktorer (Dobzhansky, 1962)

Transaksjonsmodellen



B = Barn
F = Foreldre
→ = Tid

<u>En transaksjonell utviklingsmodell med tre hovedfaktorer</u>:

1. Barnets egenskaper – temperament osv. På ethvert utviklingsnivå vil barnet på ulike psykososiale områder ha trekk, egenskaper, behov, innsikt og tolkninger som det utfolder og prøver ut på omgivelsene

2. Foreldrene møter barnets initiativ og reaksjoner ut fra sine egenskaper, innstilling, sosialiseringsintensjoner, tolkninger/forståelse av barnet, og med egne behov

3. Interaksjonens mønster/karakter som påvirker og organiserer atferd/handlinger i neste episode («dialogmønstre»)

Hafstad & Øvreeide, 2011

TRAIT vs. STATE

Definition of TRAIT (Merriam Webster)

A: a distinguishing quality (as of personal character) – curiosity is one of her notable *traits*

B: an inherited characteristic

Definition of STATE (Merriam Webster)

A: mode or condition of being • a state of readiness

B: (1) condition of mind or temperament • in a highly nervous state (2): a condition of abnormal tension or excitement

- ***Behavioral style*** **(Thomas & Chess, 1963; 1968; 1977)**
- ***Emotionality, Activity, Sociability*** **(EAS, Buss & Plomin, 1975; 1984)**
- ***Psychobiological approach*** **(Rothbart, 1981)**
- ***Emotion Regulating Model*** **(Goldsmith & Campos, 1982)**
- ***Behavioral Inhibition*** **(Kagan, 1994)**
- ***Temperament and Character Inventory*** **(Cloninger, 1994)**
- ***BIS/BAS*** **(Gray, 1982; 2005)**
- ***Regulative Theory of Temperament*** **(Strelau, 2008)**
- ***Functional Ensemble of Temperament*** **(Rusalov & Trofimova, 2007)**

Selvregulering

- Barnets evne til å håndtere/endre aktivering/impulser som respons til interne og eksterne betingelser

- En utviklingsprosess som fremmer barnets *"fleksibilitet overfor situasjonelle krav"*

- Fra ytreregulering (omsorgsgivere møter basale behov for trygghet, temperaturkontroll, ernæring og reduksjon eller eliminering av påvirkninger som skaper ubehag)

- Til indreregulering (regulering av søvn-/våkenhetssyklus, lære selvroing når opprørt, planmessighet)

A gradient of childhood self-control predicts health, wealth, and public safety

Terrie E. Moffitt[a,b], Louise Arseneault[b], Daniel Belsky[a], Nigel Dickson[c], Robert J. Hancox[c], HonaLee Harrington[a], Renate Houts[a], Richie Poulton[c], Brent W. Roberts[d], Stephen Ross[a], Malcolm R. Sears[e,f], W. Murray Thomson[g], and Avshalom Caspi[a,b,1]

[a]Departments of Psychology and Neuroscience and Psychiatry and Behavioral Sciences, and Institute for Genome Sciences and Policy, Duke University, Durham, NC 27705; [b]Social, Genetic, and Developmental Psychiatry Research Centre, Institute of Psychiatry, King's College London, London SE5 8AF, United Kingdom; [c]Dunedin Multidisciplinary Health and Development Research Unit, Department of Preventive and Social Medicine, School of Medicine, and [g]Department of Oral Sciences and Orthodontics, School of Dentistry, University of Otago, Dunedin, New Zealand; [d]Department of Psychology, University of Illinois, Urbana-Champaign, Champaign, IL 61820; [e]Department of Medicine, McMaster University, Hamilton, ON, L8S4L8 Canada; and [f]Firestone Institute for Respiratory Health, Hamilton, ON, Canada L8N 4A6

Edited by James J. Heckman, University of Chicago, Chicago, IL, and approved December 21, 2010 (received for review July 13, 2010)

Policy-makers are considering large-scale programs aimed at self-control to improve citizens' health and wealth and reduce crime. Experimental and economic studies suggest such programs could reap benefits. Yet, is self-control important for the health, wealth, and public safety of the population? Following a cohort of 1,000 children from birth to the age of 32 y, we show that childhood self-control predicts physical health, substance dependence, personal finances, and criminal offending outcomes, following a gradient of self-control. Effects of children's self-control could be disentangled from their intelligence and social class as well as from mistakes they made as adolescents. In another cohort of 500 sibling-pairs, the sibling with lower self-control had poorer outcomes, despite shared family background. Interventions addressing self-control might reduce a panoply of societal costs, save taxpayers money, and promote prosperity.

life course | longitudinal | public policy

ance arises from the empirical observation that preschool programs that targeted poor children 50 y ago, although failing to achieve their stated goal of lasting improvement in children's intelligence quotient (IQ) scores, somehow produced byproduct reductions in teen pregnancy, school dropout, delinquency, and work absenteeism (18).* To the extent that self-control influences outcomes as disparate as health, wealth, and crime, enhancing it could have broad benefits. Given that self-control is malleable, it could be a prevention target, and the key policy question becomes when to intervene to achieve the best cost–benefit ratio, in childhood or in adolescence (19, 20)? Regardless of its malleability, however, if low self-control is influential, policy-makers might exploit this by enacting so-called "opt-out" schemes that tempt people to eat healthy food, save money, and obey laws by making these the default options that require no effortful self-control. If citizens were obliged to opt out of default health-enhancing programs or payroll-deduction retirement savings schemes, individuals with low self-control should tend to take the easy option and

Fig. 1. Design of the Dunedin Multidisciplinary Health and Development Study.

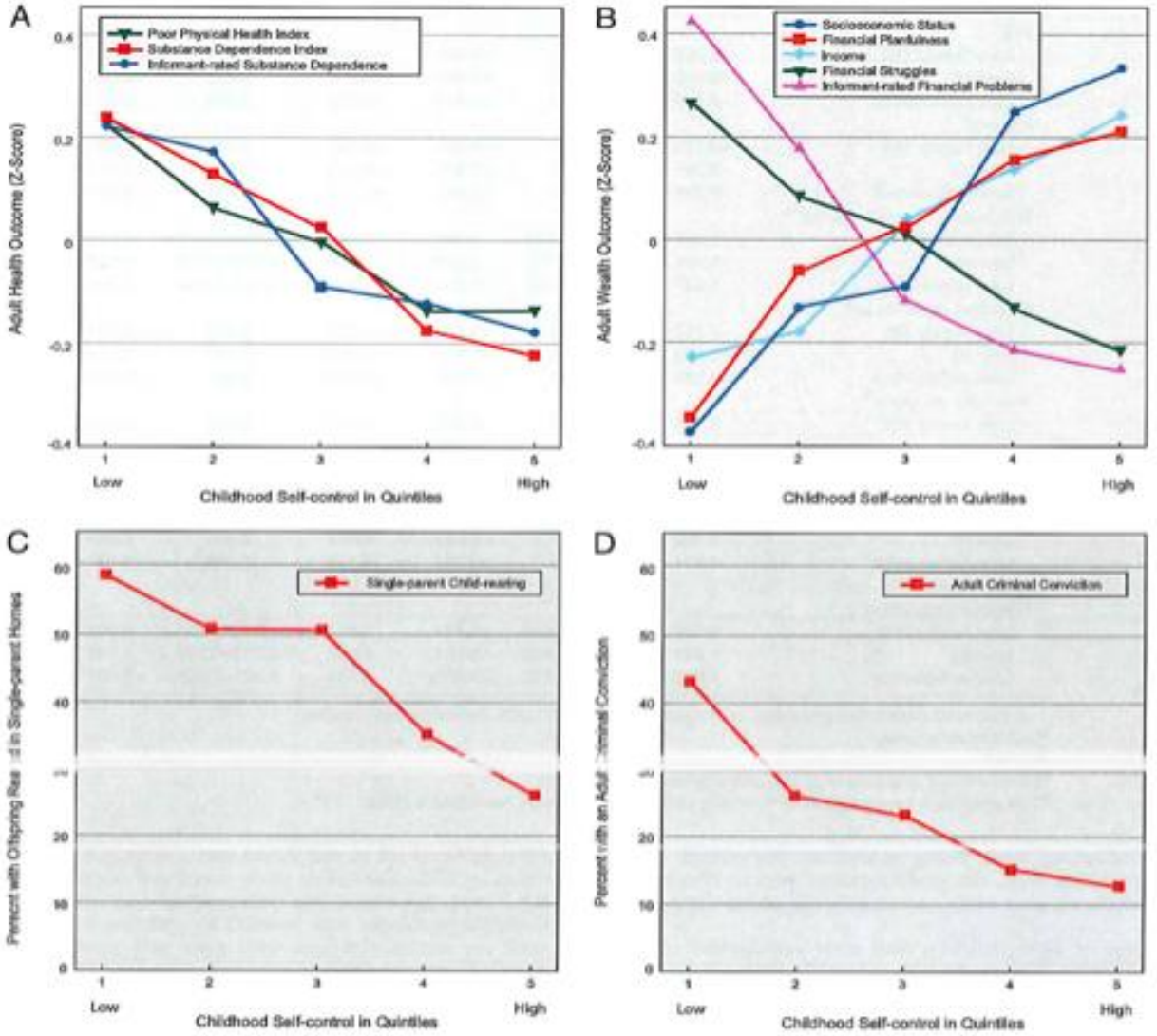


Fig. 2. Self-control gradient. Children with low self-control had poorer health (*A*), more wealth problems (*B*), more single-parent child rearing (*C*), and more criminal convictions (*D*) than those with high self-control.

Journal of Abnormal Psychology
2017, Vol. 126, No. 2, 212–224

0021-843X/17/$12.00 http://dx.doi.org/10.1037/abn0000232

Enduring Mental Health: Prevalence and Prediction

Jonathan D. Schaefer
Duke University

Avshalom Caspi
Duke University and King's College London

Daniel W. Belsky
Duke University and Duke University School of Medicine

Honalee Harrington and Renate Houts
Duke University

L. John Horwood
University of Otago

Andrea Hussong
University of North Carolina at Chapel Hill

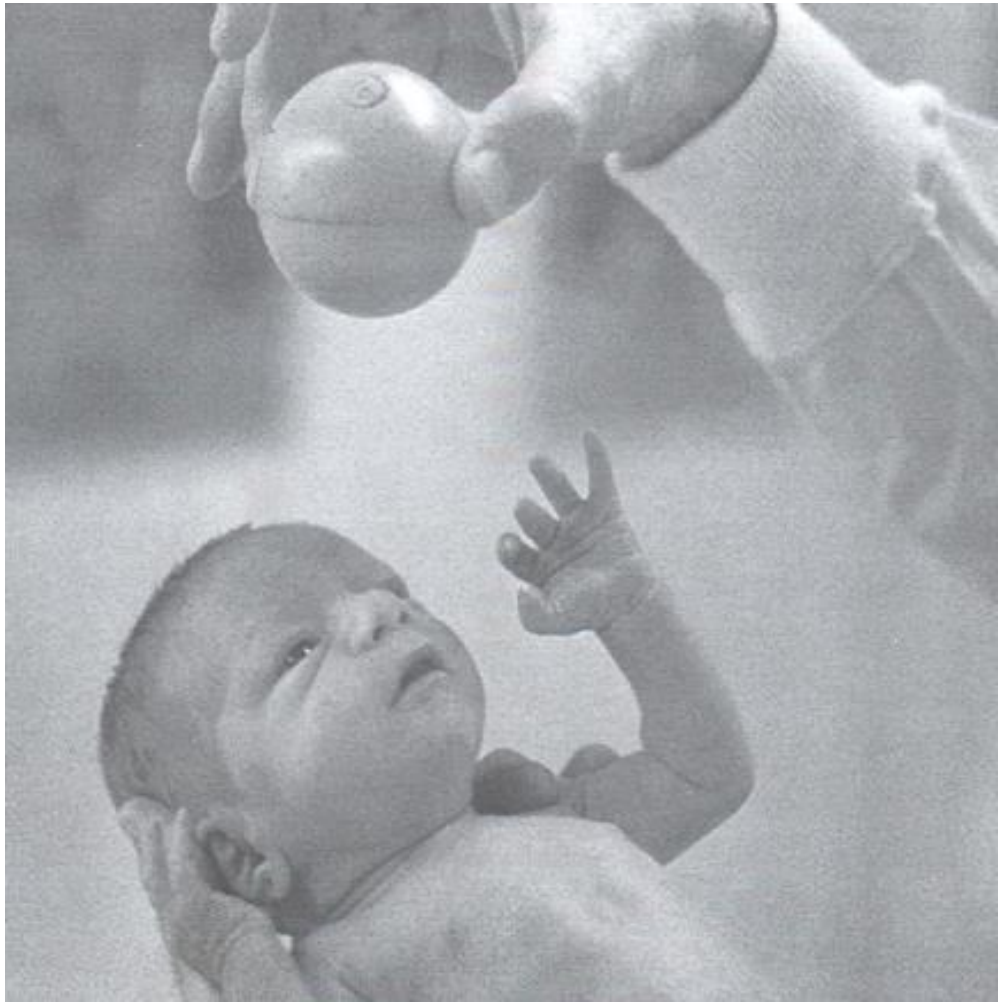
Sandhya Ramrakha and Richie Poulton
University of Otago

Terrie E. Moffitt
Duke University and King's College London

We review epidemiological evidence indicating that most people will develop a diagnosable mental disorder, suggesting that only a minority experience enduring mental health. This minority has received little empirical study, leaving the prevalence and predictors of enduring mental health unknown. We turn to the population-representative Dunedin cohort, followed from birth to midlife, to compare people never-diagnosed with mental disorder (N = 171; 17% prevalence) to those diagnosed at 1–2 study waves, the cohort mode (N = 409). Surprisingly, compared to this modal group, never-diagnosed Study members were not born into unusually well-to-do families, nor did their enduring mental health follow markedly sound physical health, or unusually high intelligence. Instead, they tended to have an advantageous temperament/personality style, and negligible family history of mental disorder. As adults, they report superior educational and occupational attainment, greater life satisfaction, and higher-quality relationships. Our findings draw attention to "enduring mental health" as a revealing psychological phenotype and suggest it deserves further study.

Individuelle variasjoner i barns selvregulering:

Betydning av temperament



Tendensen til tilnærming eller tilbaketrekking som respons til ukjente mennesker, situasjoner eller oppgaver er et fremtredende aspekt ved temperament

Alexander Thomas & **Stella Chess** (1956)

The New York Longitudinal Study

85 familier, 141 barn. Middel - øvre middelklasse, 78 % jødisk

AKTIVITETSNIVÅ – grad av fysisk aktivitet gjennom dagen

RYTMISITET (REGELMESSIGHET) – i hvilken grad søvn, matinntak, naturlige funksjoner er konsistent

TILNÆRMING ELLER TILBAKETREKKING – innledende reaksjon på nye stimuli

TILPASNING – hvor lett eller vanskelig det er å modifisere innledende reaksjon i ønsket retning

INTENSITET I REAKSJON – grad av energi i emosjonelle uttrykk, positive og negative

TERSKLER FOR RESPONS – sensitivitet; hvilken styrkegrad for reaksjon på lys, lyd, sosialt

HUMØR – dominerende emosjonelle uttrykk, positiv eller negativ

DISTRAHERBARHET – hvor lett individet blir distrahert av lyd, lys, andre stimuli som forstyrrer opprettholdelse av atferd

OPPMERKSOMHETSSPENN OG ÅRVÅKENHET - selektivitet, iherdighet og frustrasjonstoleranse

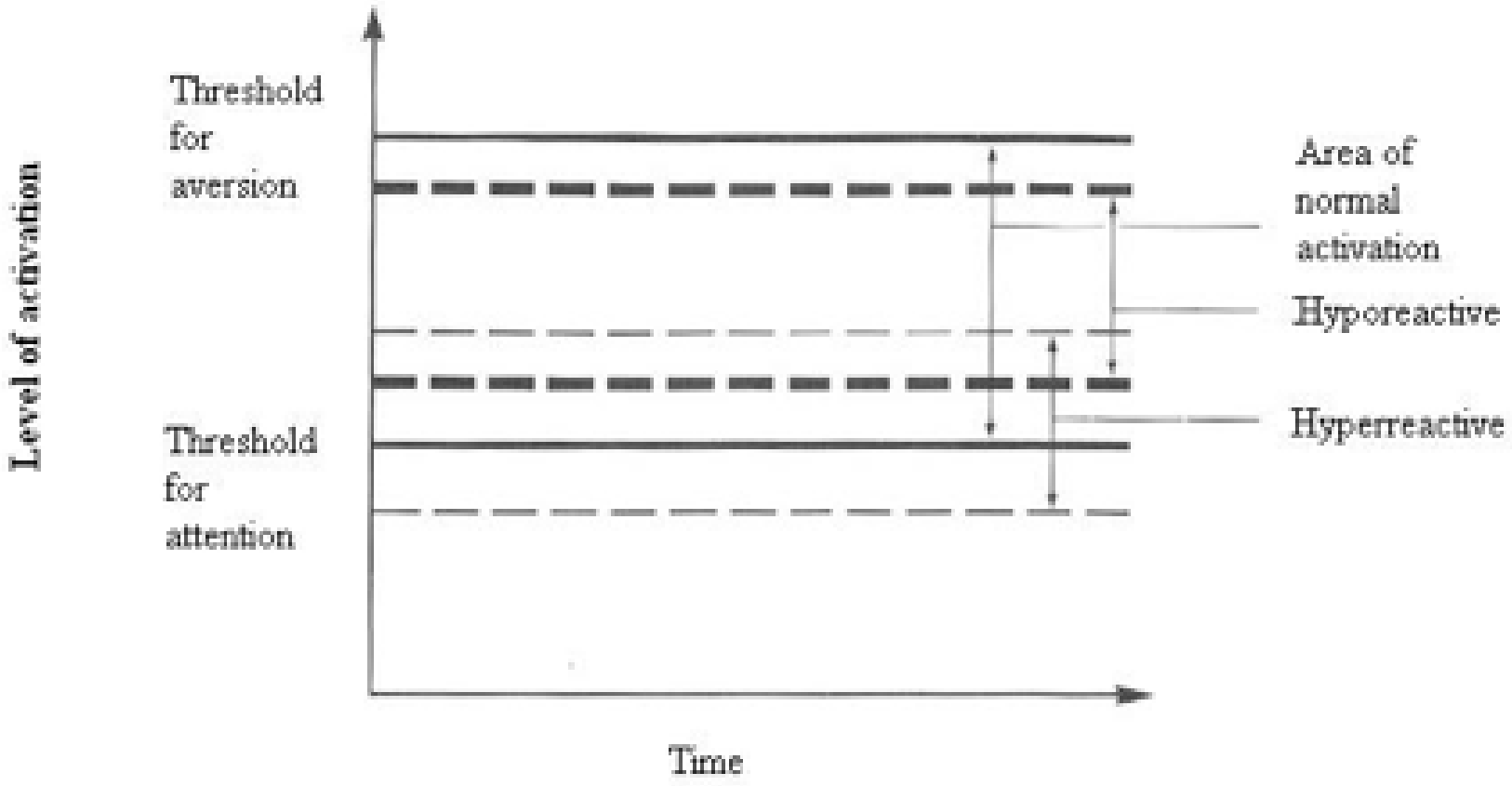
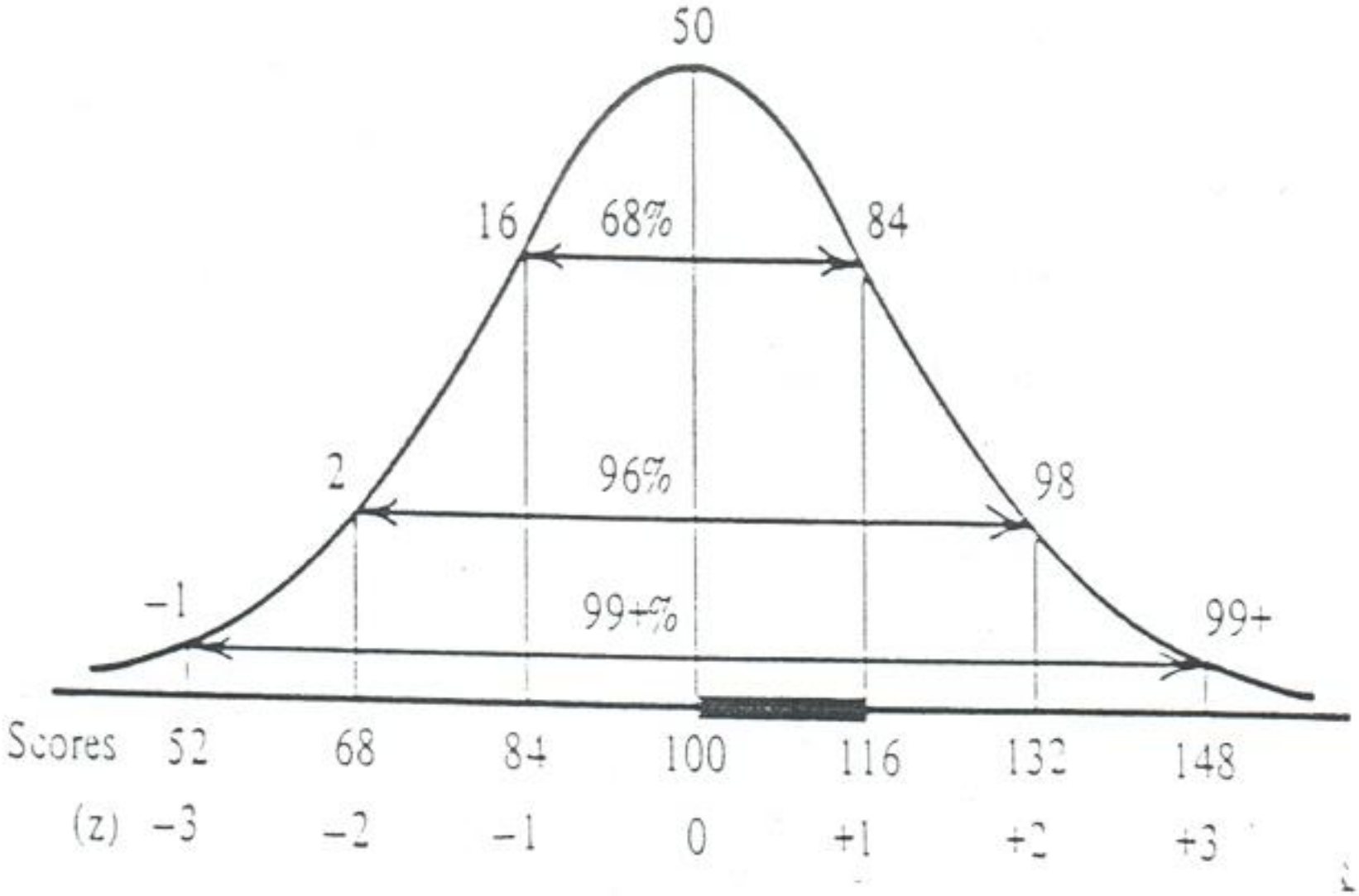


Figure 1. Field's (1981) proposed "optimal activation band."


50
16
68%
84
2
96%
98
-1
99+%
99+
Scores 52 68 84 100 116 132 148
(z) -3 -2 -1 0 +1 +2 +3

Tenderer å behandle barn forskjellig hvis vi anser de som å reflektere en spesiell ”type” barn, sammenlignet med hvis barnet bare er høyere eller lavere på en dimensjon

Lærere kan reagere forskjellig hvis de blir fortalt at et barn er hyperaktiv, sammenlignet med hvis det samme barnet blir beskrevet som mer aktiv enn andre barn i alderstrinnet

THE JOURNAL OF CHILD PSYCHOLOGY AND PSYCHIATRY

ACAMH

Journal of Child Psychology and Psychiatry 53:1 (2012), pp 73–80 doi:10.1111/j.1469-7610.2011.02467.x

Childhood attention-deficit hyperactivity disorder as an extreme of a continuous trait: a quantitative genetic study of 8,500 twin pairs

Henrik Larsson,[1,2] Henrik Anckarsater,[3] Maria Råstam,[4] Zheng Chang,[1] and Paul Lichtenstein[1]

[1]Department of Medical Epidemiology and Biostatistics, Karolinska Institutet, Stockholm; [2]Karolinska Institutet Center for Neurodevelopmental Disorders, Stockholm; [3]Department of Forensic Psychiatry, Institute of Neuroscience and Physiology, Sahlgren's Academy, University of Gothenburg, Gothenburg; [4]Division of Child and Adolescent Psychiatry, Department of Clinical Sciences, Lund University, Lund, Sweden

Background: Although the clinical utility of categorically defined attention-deficit hyperactivity disorder (ADHD) is well established, there is also strong evidence supporting the notion of ADHD as an extreme of a continuous trait. Nevertheless, the question of whether the etiology is the same for different levels of DSM–IV ADHD symptoms remains to be investigated. The aim of this study was to assess genetic links between the extreme and the subthreshold range of ADHD symptoms. **Method:** Parents of all Swedish 9- and 12-year-old twins born between 1992 and 2000 were interviewed for DSM–IV ADHD symptoms and associated conditions. Two validated cutoff values were used for screening and assigning research diagnoses. Response rate was 80%. Twin methods were applied to investigate the extent to which ADHD is etiologically distinct from subthreshold variations in ADHD symptoms. **Results:** Extremes analyses indicated a strong genetic link between the extreme and the subthreshold variation, with almost identical group heritability estimates around .60 for the diagnostic (prevalence 1.78%) and screening (prevalence 9.75%) criteria of ADHD. **Conclusion:** A strong genetic link between the extreme and the subthreshold variation of DSM–IV based assessments of ADHD symptoms was found. The data suggest that ADHD is best viewed as the quantitative extreme of genetic and environmental factors operating dimensionally throughout the distribution of ADHD symptoms, indicating that the same etiologic factors are involved in the full range of symptoms of inattention, hyperactivity and impulsivity. **Keywords:** ADHD, DSM, etiology, twins.

Jerome Kagan

Laboratory for Child Development
Harvard University

- 500 spedbarn (4 måneder)

- 45 min undersøkelse i 1989:

(høre opptak av ukjente stemmer, ballonger som plutselig sprekker, fargefulle bevegelige leker, lukte på bomull med alkoholduft)

Atferdsobservasjoner og fysiologiske mål: hjerterate, blodtrykk, fingertemperatur, øyedilatasjon, kortisol etc.

Behavioral inhibition to the unfamiliar

(*Kagan, 1988; 1994; Kagan & Snidman, 2003*)

Markert *hemming* eller *fryktsomhet* overfor fremmede mennesker, situasjoner eller hendelser

https://www.youtube.com/watch?v=CVJBzvaylH8

I populasjonen omtrent 10% av barn som har inhibert temperament, og mer enn 20% med disinhibert temperament

Journal of Child Psychology and Psychiatry 45:4 (2004), pp 874–883

Early anxious/withdrawn behaviours predict later internalising disorders

Renee D. Goodwin,[1] David M. Fergusson,[2] and L. John Horwood[2]

[1]Department of Epidemiology, Mailman School of Public Health, Columbia University, USA; [2]Christchurch Health and Development Study, Department of Psychological Medicine, Christchurch School of Medicine and Health Sciences, New Zealand

Background: The aim of the study was to examine the association between anxious/withdrawn behaviours at age 8 and the development of internalising disorders in adolescence and young adulthood (ages 16–21). **Methods:** Data were gathered over the course of a 21-year longitudinal study of a birth cohort of over 1,000 New-Zealand-born young people. Over the course of the study, data were gathered on: (a) anxious/withdrawn behaviour at age 8; (b) anxiety disorders and major depression at ages 16–18 and 18–21; (c) a range of potential confounding factors, including measures of adversity and family factors during childhood. **Results:** Increasing anxious/withdrawn behaviour at age 8 was associated with increasing risks of social phobia; specific phobia; panic/agoraphobia; and major depression during adolescence and young adulthood. These associations persisted after adjustment for a series of confounding social, childhood, and family factors. **Conclusions:** Anxious/withdrawn behaviour in childhood is associated with elevated rates of anxiety disorders and major depression during adolescence and young adulthood. These data are consistent with, and extend, previous clinical and epidemiologic findings, by showing consistent linkages between childhood anxious/withdrawn behaviours at age 8 and increased risk for anxiety disorders and depression at ages 16–18 and 18–21 among young persons in the community. These results may point to the need to provide support and possibly intervention to children showing early anxious or withdrawn behaviours. **Keywords:** Childhood anxiety/withdrawal; anxiety disorder; major depression. **Abbreviations:** CHDS: Christchurch Health and Development Study; CIDI: Composite International Diagnostic Interview; GAD: Generalised anxiety disorder.

There has been extensive research into the factor structure of parent, teacher, and self-report measures of childhood behavioural patterns (Achenbach, Conners, Quay, Verhulst, & Howell, 1989; Achenbach & Edelbrock, 1978; Boer & Westenberg, 1994; Fergusson & Horwood, 1993; Gaaman et al., 2002; Hinshaw, 1987; Mathiesen & Tambs, 1999; Prior, 1992; Quay, 1986; Sonuga-Barke, Thompson, Stevenson, & Viney, 1997). Although different studies have reported different factor structures, three dimensions of behaviour have emerged consistently and reliably from these studies. These dimensions include: (1) conduct disorder problems: children scoring high on this dimension are characterised by aggressive, antisocial, oppositional or defiant behaviour problems; (2) attention deficit/hyperactivity behaviour: children with high scores on this dimension exhibit restless, inattentive, impulsive, and distractible behaviour; (3) anxiety/withdrawal behaviour: children scoring high on this dimension are characterised by anxious, fearful, shy, inhibited, or withdrawn behaviours. These dimensions have emerged as being stable across time, suggesting that they reflect generalised behaviour traits. For example, in a factor-analytic study of parent, child, and teacher reports, Fergusson and Horwood (1993) identified these three general dimensions. This study showed that when due allowance was made for method variance, these three underlying factors were highly stable across time, with across-time correlations in the range of .82 to .91 over the period of 8–12 years.

The extent to which early conduct and attentional problems are predictive of longer-term developmental outcomes has been the focus of a considerable amount of research (Capaldi, 1992; Clark, Prior, & Kinsella, 2002; Côté, Tremblay, Nagin, Zoccolillo, & Vitaro, 2002; Côté, Zoccolillo, Tremblay, Nagin, & Vitaro, 2001; Fergusson & Lynskey, 1998; Fergusson, Lynskey, & Horwood, 1997; Hofstra, van der Ende, & Verhulst, 2001; Hofstra, Van der Ende, & Verhulst, 2002a, b; Lambert, 1988; Loeber, Green, Lahey, & Kalb, 2000; Moffitt, 1993; Pajer, 1998; Scholte, van Berkelaer-Onnes, & van der Ploeg, 2002; Stanger, Achenbach, & Verhulst, 1997). In contrast, relatively little attention has been given to the life course outcomes associated with anxious/withdrawn behavioural tendencies in childhood. A small number of studies have examined the linkages between early anxious/withdrawn behaviour and the development of subsequent anxiety and depression (Verhulst & Koot, 1991). For example, in a large prospective, longitudinal study of Australian children, Prior, Smart, Sanson, and Oberklaid (2000) found that children who were described as 'shy' on multiple occasions during infancy and childhood had increased risks of anxiety problems at ages 13–14. Similarly, Caspi,

Published by Blackwell Publishing, 9600 Garsington Road, Oxford OX4 2DQ, UK and 350 Main Street, Malden, MA 02148, USA

Article

Further Evidence of Association Between Behavioral Inhibition and Social Anxiety in Children

Joseph Biederman, M.D.

Dina R. Hirshfeld-Becker, Ph.D.

Jerrold F. Rosenbaum, M.D.

Christine Hérot, Ed.D.

Deborah Friedman, B.A.

Nancy Snidman, Ph.D.

Jerome Kagan, Ph.D.

Stephen V. Faraone, Ph.D.

Objective: The authors sought to examine psychopathological correlates of behavioral inhibition in young offspring of parents with panic disorder and/or major depression.

Method: Behavioral inhibition, determined by using standard laboratory observations, was assessed in four groups of children (age 2–6 years): 129 children of parents with both panic disorder and major depression, 22 children of parents with panic disorder alone, 49 children of parents with major depression alone, and 84 comparison children of parents with neither panic disorder nor major depression. Psychopathology in children ≥5 years was compared between children with behavioral inhibition (N=64) and without (N=152).

Results: Social anxiety disorder (social phobia or avoidant disorder) was significantly more likely to be found in the children with behavioral inhibition (17%) than in those without (5%). Noninhibited children were significantly more likely than inhibited children to have disruptive behavior disorders (20% versus 6%, respectively) and had higher scores on the attention problems scale of the Child Behavior Checklist (mean=52.1 versus 50.8).

Conclusions: This study adds to the growing literature suggesting an association between behavioral inhibition and social anxiety disorder and an inverse relationship between inhibition and disruptive behavior disorders.

(Am J Psychiatry 2001; 158:1673–1679)

Foreldrekarakteristika: Foreldre med egen angst-/ emosjonell problematikk høyere sannsynlighet for å ha vært sjenerte, inhiberte eller engstelige selv

Genetiske likheter bidrar til likhet i sosial varsomhet

Oppdragelsespraksisen til foreldre med angstproblematikk risikofaktor (engstelige særlig overbeskyttende oppdragelsesstil)

Engstelige foreldre også mer tilbøyelig til å oppleve og uttrykke uro/ubehag og negativ affekt i forbindelse med oppdragelsen

Atferdsmessig inhiberte barn tidlig **tilbøyelighet til å oppfatte nyhet/fare i omgivelsene** (”higher detection of novelty/heightened orienting to threat”)

Slik tilbøyelighet hos små barn kan føre til **overgeneralisering av trusler**, med økt sosial tilbaketrekking som respons

Dersom oppmerksomhetsstilen får vedvare: barna kan **trekke seg fra sosiale situasjoner i en fastlåst og lite hensiktsmessig måte**, noe som kan resultere i angstforstyrrelser

Opprettholdelsen av oppmerksomhetsstil mest sannsynlig resultatene av **konteksten**; hvordan omsorgsgivere/voksne responderer til barnets reaktivitet og hyperårvåkenhet

tric Disorders in Norwegian 8- to 10-Year-Olds...

Journal of the American Academy of
CHILD & ADOLESCENT PSYCHIATRY

Enter Keywords | All Issues | Search

Home | Current Issue | Previous Issues | Published Ahead-of-Print

Home > April 2007 - Volume 46 - Issue 4 > Psychiatric Disorders in Norwegian 8- to 10-Year-Olds: An Ep...

< Previous Abstract | Next Abstract >

Journal of the American Academy of Child & Adolescent Psychiatry:
April 2007 - Volume 46 - Issue 4 - pp 438-447
doi: 10.1097/chi.0b013e31803062bf
Articles

Psychiatric Disorders in Norwegian 8- to 10-Year-Olds: An Epidemiological Survey of Prevalence, Risk Factors, and Service Use

HEIERVANG, EINAR M.D., Ph.D.; STORMARK, KJELL M. Ph.D.; LUNDERVOLD, ASTRI J. Ph.D.; HEIMANN, MIKAEL Ph.D.; GOODMAN, ROBERT M.D., Ph.D.; POSSERUD, MAJ-BRITT M.D.; ULLEBØ, ANNE K. M.D.; PLESSEN, KERSTIN J. M.D.; BJELLAND, INGVAR M.D., Ph.D.; LIE, STEIN A. Ph.D.; GILLBERG, CHRISTOPHER M.D., Ph.D.

Abstract

Although 75% of children with attention-deficit/hyperactivity disorder had been in contact with specialist mental health services, this was true for only 13% of those with pure emotional disorders.

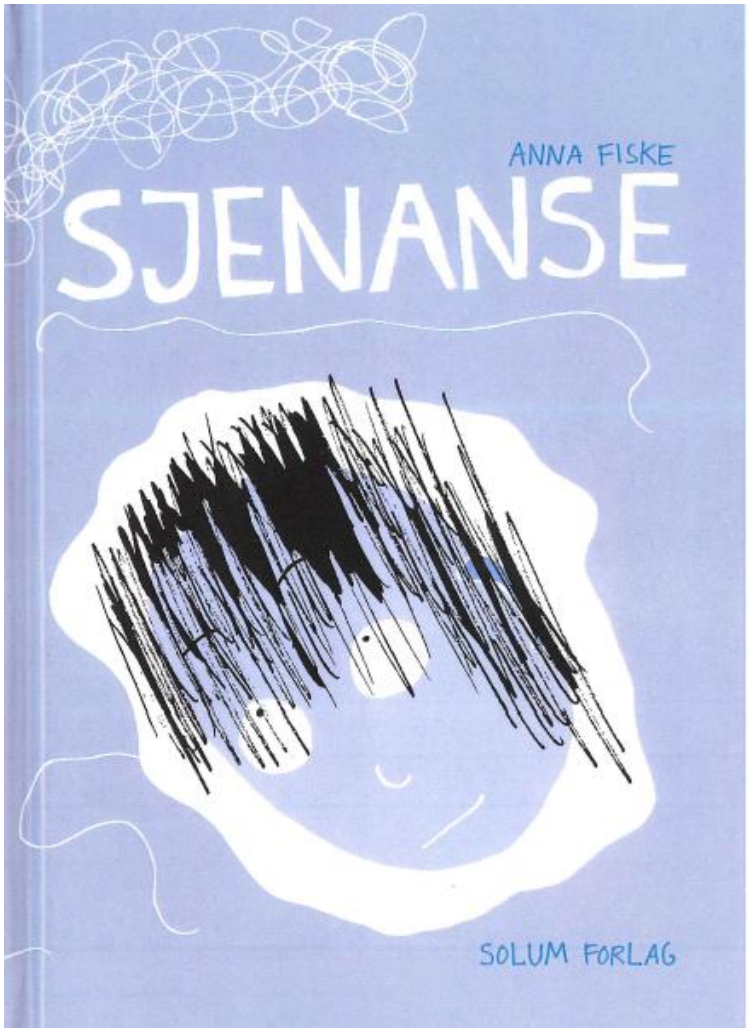
Inhiberte barn større risiko for utvikling av sosial fobi eller sosial angst; også sammenhenger med panikkangst, annen angst i barndom og depresjon

De fleste inhiberte barn vil ikke utvikle noen psykiatrisk forstyrrelse. Utvikling av en sky, hemmet introvert personlighet er mer sannsynlig

Fryktsomhet kan påvirke barns antagelser om evner og sannsynlighet for suksess

Kan ty til unngåelsesstrategier, med begrensede muligheter til å lære om de situasjonene som de frykter

Kan føre til vedvarende forestillinger om seg selv som sårbar og ineffektiv


ANNA FISKE
SJENANSE
SOLUM FORLAG

ALLE ER ULIKE

NOEN ER FLINKE TIL Å SNAKKE
ANDRE TIL Å LYTTE

NOEN ER MER FØLSOMME
ENN ANDRE

PROCEEDINGS OF THE ROYAL SOCIETY B

Proc. R. Soc. B (2012) 279, 4407–4416
doi:10.1098/rspb.2012.1483
Published online 5 September 2012

Human selection of elk behavioural traits in a landscape of fear

Simone Ciuti[1,*], Tyler B. Muhly[2], Dale G. Paton[3], Allan D. McDevitt[3,4], Marco Musiani[3] and Mark S. Boyce[1]

[1]*Department of Biological Sciences, University of Alberta, Edmonton, Alberta, Canada T6G 2E9*
[2]*Alberta Innovates Technology Futures, Vegreville, Alberta, Canada T9C 1T4*
[3]*Faculty of Environmental Design, University of Calgary, Calgary, Alberta, Canada T2N 1N4*
[4]*School of Biology and Environmental Science, University College Dublin, Belfield, Dublin 4, Ireland*

Among agents of selection that shape phenotypic traits in animals, humans can cause more rapid changes than many natural factors. Studies have focused on human selection of morphological traits, but little is known about human selection of behavioural traits. By monitoring elk (*Cervus elaphus*) with satellite telemetry, we tested whether individuals harvested by hunters adopted less favourable behaviours than elk that survived the hunting season. Among 45 2-year-old males, harvested elk showed bolder behaviour, including higher movement rate and increased use of open areas, compared with surviving elk that showed less conspicuous behaviour. Personality clearly drove this pattern, given that inter-individual differences in movement rate were present before the onset of the hunting season. Elk that were harvested further increased their movement rate when the probability of encountering hunters was high (close to roads, flatter terrain, during the weekend), while elk that survived decreased movements and showed avoidance of open areas. Among 77 females (2–19 y.o.), personality traits were less evident and likely confounded by learning because females decreased their movement rate with increasing age. As with males, hunters typically harvested females with bold behavioural traits. Among less-experienced elk (2–9 y.o.), females that moved faster were harvested, while elk that moved slower and avoided open areas survived. Interestingly, movement rate decreased as age increased in those females that survived, but not in those that were eventually harvested. The latter clearly showed lower plasticity and adaptability to the local environment. All females older than 9 y.o. moved more slowly, avoided open areas and survived. Selection on behavioural traits is an important but often-ignored consequence of human exploitation of wild animals. Human hunting could evoke exploitation-induced evolutionary change, which, in turn, might oppose adaptive responses to natural and sexual selection.

Keywords: contemporary evolution; anti-predator behaviour; shy–bold continuum; hunting; elk; *Cervus elaphus*; GPS telemetry

TABLE 7.1 Similarities and Differences in Findings From Studies of the Life Courses of Shy Swedish and American People

	Swedish study[a]	*American study*[b]
Education and career		
Males	Shy and nonshy boys are similar on all education and career measures	Shy boys enter stable careers about 3 years later than nonshy boys
Females	Shy girls attain less education—0% of shy girls earn university degrees versus 44% of nonshy girls	Most women leave the workforce at marriage, but shy women are less likely to return later
Marriage and family		
Males	Shy boys marry and have children about 3–4 years later than nonshy boys	Shy boys marry and have children about 3–4 years later than nonshy boys
Females	Shy and nonshy girls marry and have first child at similar ages	Shy and nonshy girls marry and have first child at similar ages

Note. [a]Kerr, Lambert, & Bem (1996); [b]Caspi, Elder, & Bem (1988).

- Utviklingen for inhiberte og disinhiberte barn er ikke fiksert

- Et barns erfaringer kan dempe eller fremme en innledende temperamentsdisposisjon

- Spedbarn med fysiologi som disponerer for høy reaktivitet ved 4 måneder, men som erfarer et støttende miljø som hjelper de til å overvinne frykt, trenger ikke å bli engstelig, sky, inhibert

Chen m. fl. (1999) fant at skyhet hos kinesiske smårollinger *ikke var forbundet med tilpasningsvansker* (eksternaliserende eller internaliserende) da barna var 8 og 10 år

- men var forbundet med god tilpasning i tenårene – inkludert hvordan *lærere vurderte kompetanse – mht. lederskap, skoleprestasjoner og selvoppfatninger av kompetanse*

Barn som var fryktsomme i laboratoriet i 1-års alderen ble vurdert ved 7-års alder som lav i aggresjon og høy i empati (Posner & Rothbart, 2007)

Atferdsmessig hemming kan bli sett på som beskyttelsesfaktorer i utviklingen av eksternaliserende problematikk

De som var fryktsomme viste også mer skyld og skam, noe som antyder at frykt spiller en rolle i samvittighetsutvikling

Kochanska (1991; 1995; 2000) viste at fryktsomme barn profiterte på mild disiplin i samvittighetsutvikling

A Selective Intervention Program for Inhibited Preschool-Aged Children of Parents With an Anxiety Disorder: Effects on Current Anxiety Disorders and Temperament

SUSAN J. KENNEDY, M.CLIN.PSYCH., PH.D., RONALD M. RAPEE, M.SC.PSYCH., PH.D., AND SUSAN L. EDWARDS, M.CLIN.PSYCH., PH.D.

ABSTRACT

Objective: The current study evaluated the efficacy of early intervention for preschool-aged children selected on the basis of risk who also met diagnostic criteria for anxiety disorders. **Method:** Seventy-one 3- to 4-year-old children were selected based on demonstrating high levels of inhibition and having a parent with a current anxiety disorder. They were randomly allocated to an eight-session parent intervention or waitlist. **Results:** At baseline, all of the children met criteria for one or more anxiety disorders. At 6-month follow-up, the intervention group showed a significantly greater reduction in anxiety disorders and less interference from their anxiety than the waitlist. In addition, children in the intervention condition showed greater reductions in parent and laboratory observed measures of behavioral inhibition. **Conclusions:** The results suggest that a brief early intervention delivered through parents can reduce current anxiety and associated risk and may have the potential to alter the developmental trajectory of anxiety in a high-risk group of young children. *J. Am. Acad. Child Adolesc. Psychiatry,* 2009;48(6):602–609. **Key Words:** preschool, anxiety, inhibition, prevention, internalizing. Clinical Trials Registry Information—Parent Education for Pre-School-Aged Children at Risk for Anxiety Disorders Aimed at Reducing High Levels of Inhibition. URL: *http://www.anzctr.org.au.* Unique identifier: 126080000351314.

TABLE 1

Content of Parent Intervention Program

Session No.	Content
1	Psychoeducation about the development, maintenance, and treatment of excessive anxiety in young children
2	Parent management strategies for anxious children, including positive parenting skills and reduction of overprotection
3	Introduction to exposure with development of graded hierarchies
4	Revision of exposure hierarchies and development/ enhancement of social skills
5	Cognitive restructuring for anxious/negative thinking styles for parents and children
6	Exposure for parents' fears
7	Coping plans (summary of anxiety management skills) for anxious children
8	Maintenance and relapse prevention
Phone call	Reinforcement of progress and troubleshooting

Flaten, K., & Mowatt Haugland, B. S. (2013). Kule krabatar leikar – angstførebygging gjennom leik. *Spesialpedagogikk, 0813,* 12-17

Disinhibisjon og risiko

Disinhiberte problemer som antisosialitet, psykopati, rusmisbruk og hyperaktivitet

Mediert av dopaminerge systemer; sammenheng med at individer opplever spenning overfor nye stimuli, fører til eksplorerende aktivitet, impulsive avgjørelser, og blir lett frustrert

Høy terskel for fysiologisk aktivering –
lav engstelse og skyldfølelse, spenningssøking

Kan være en temperamentsmessig risikofaktor for ADHD og andre utagerende forstyrrelser

Tvillingstudier har vist at atferdsmessig disinhibisjon har felles genetisk variasjon med et spektrum av utageringsvansker (”eksternalisering”), så som misbruk av rusmidler, atferdsforstyrrelse og ADHD

5 – 6 år gamle barn med *atferdsmessig disinhibisjon* høyere andel av plassering i spesialklasser, mer atferdsproblemer i skolen, mer problemer i fritid, lavere generell fungering, og høyere andel av psykososial behandling

Hirshfeld-Becker m fl.,

Biological Psychiatry, 2003

avslappethet, - **lav *aktivering***, - **minimal *frykt*** for nye situasjoner, og - **høyt *sosiale***

- større sjanse for gode karrieremuligheter & bli ledere hvis oppvekst i middelklassefamilier som forsterker prestasjoner

Barn med samme temperament større sannsynlighet for å bli normbrytere eller kriminelle hvis oppvekst med fattige enslige foreldre i storbygettoer

Personlighet kombinasjoner av temperament og erfaring

(Kagan & Snidman, 2004)

Spedbarn som viste et ”vanskelig temperament” hadde større sannsynlighet for å 1) *utløse mindre sensitiv omsorg*, og 2) *krevde mer omsorgskompetanse hos foreldrene*

(Thomas, Chess, & Birch, 1968)

	Temperamentstyper	
Gruppenavn	**Beskrivelse**	**Omtrent frekvens i generell populasjon i skolealder (%)**
Moderat	**Gjennomsnittlige nivå av hoveddimensjonene, uten ekstremer**	**35**
Mild	**Lavere nivå av tilnærming og energi, men ikke spesielt engstelig og med god regulering**	**20**

Agitert	**Høy energi men også tilbøyelig til å oppleve negative emosjoner som kan være vanskelig å regulere**	**10**
Sikker	**Høy ekstroversjon og sosial deltagelse, med lav engstelighet og god regulering**	**20**
Engstelig	**Høy negativ emosjonalitet men lavere regulering og lavere ekstroversjon**	**15**

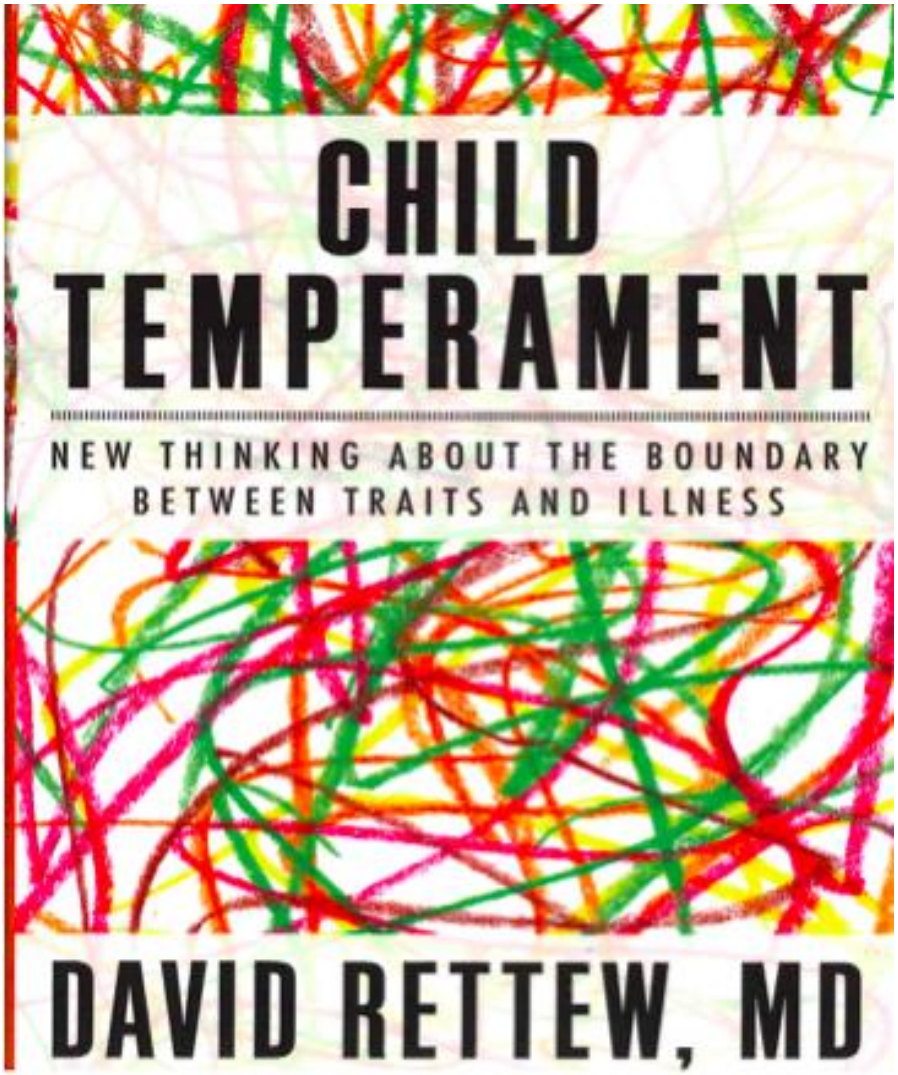
TABLE 5.1.
Temperament Traits Associated With Common Psychiatric Disorders

Disorder	Negative Affectivity	Extraversion/Approach	Sociability	Regulatory Ability/Effortful Control
ADHD, combined	+/–	++	+	—
ADHD, inattentive	+	+/–	+/–	—
ODD	+	+/–	+/–	—
CD/psychopathy	+/–	++	+/–	+/–
General anxiety	++	+/–	+/–	—
Depression	+/–	—	+/–	–
Bipolar disorder	+	+	+/–	—
Autistic spectrum	+	—	—	—
Substance abuse	+	+	+/–	–
Psychotic disorders	+/–	–	–	–
Eating disorders, "undercontrolled"	+	+/–	+/–	—
Eating disorders, "overcontrolled"	+/–	—	+/–	+/–

ODD, oppositional defiant disorder; CD, conduct disorder. ++, increased levels of trait strongly associated with the disorder; +, increased levels of trait moderately associated with the disorder; +/–, trait not associated with disorder; –, decreased levels of trait moderately associated with the disorder; —, decreased levels of trait strongly associated with the disorder.

TABLE 6.1.
Mechanisms of Association between Temperament and Psychiatric Disorders

Mechanism	Description	Possible Example
Continuum	Psychopathology and temperamental traits are the same thing with psychopathology representing the extreme end of the continuum	Activity level and ADHD
Risk	Psychopathology and temperamental traits are different entities with temperament an important risk factor for psychopathology	Novelty seeking and drug abuse
Scar	Psychopathology causes differences in temperamental traits	Autism and sociability
Bidirectional	Psychopathology and temperamental traits are different but mutually interact and influence each other	Extraversion and major depression
Common Pathway	Psychopathology and temperamental traits originate from common factors but diverge with other influences	Negative emotionality and anxiety disorders


CHILD
TEMPERAMENT
NEW THINKING ABOUT THE BOUNDARY
BETWEEN TRAITS AND ILLNESS
DAVID RETTEW, MD

The Journal of Child Psychology and Psychiatry

Journal of Child Psychology and Psychiatry 59:3 (2018), pp 285–295 doi:10.1111/jcpp.12772

Explaining the relationship between temperament and symptoms of psychiatric disorders from preschool to middle childhood: hybrid fixed and random effects models of Norwegian and Spanish children

Lars Wichstrøm,[1,2] Eva Penelo,[3,4] Kristine Rensvik Viddal,[1] Nuria de la Osa,[3,5] and Lourdes Ezpeleta[3,5]

[1]Department of Psychology, NTNU Norwegian University of Science and Technology, Trondheim; [2]NTNU Social Research, Trondheim, Norway; [3]Unitat d'Epidemiologia i Diagnòstic en Psicopatologia del Desenvolupament, Universitat Autònoma de Barcelona, Barcelona; [4]Departament de Psicobiologia i de Metodologia de les Ciències de la Salut, Universitat Autònoma de Barcelona, Barcelona; [5]Departament de Psicologia Clínica i de la Salut, Universitat Autònoma de Barcelona, Barcelona, Spain

Psychological Bulletin
2006, Vol. 132, No. 1, 33–72

0033-2909/06/$12.00 DOI: 10.1037/0033-2909.132.1.33

Gender Differences in Temperament: A Meta-Analysis

Nicole M. Else-Quest, Janet Shibley Hyde, H. Hill Goldsmith, and Carol A. Van Hulle
University of Wisconsin—Madison

The authors used meta-analytical techniques to estimate the magnitude of gender differences in mean level and variability of 35 dimensions and 3 factors of temperament in children ages 3 months to 13 years. Effortful control showed a large difference favoring girls and the dimensions within that factor (e.g., inhibitory control: $d = -0.41$, perceptual sensitivity: $d = -0.38$) showed moderate gender differences favoring girls, consistent with boys' greater incidence of externalizing disorders. Surgency showed a difference favoring boys, as did some of the dimensions within that factor (e.g., activity: $d = 0.33$, high-intensity pleasure: $d = 0.30$), consistent with boys' greater involvement in active rough-and-tumble play. Negative affectivity showed negligible gender differences.

Keywords: gender differences, temperament, personality, meta-analysis

For at et gitt temperamentsmønster skal utvikle seg til å bli en forstyrrelse, så krever det spesielle samspill mellom barn med sitt mønster og dets effektive miljø

Goodness or poorness of fit: ***Gjensidig tilpasning***

Når forventninger eller krav fra foreldre eller andre i miljøet **er i samsvar** (*konsonans*) eller **motsvarende** (*dissonans*) med barnets temperament og ferdigheter

Må ses ut fra verdier, antagelser og forventninger ut fra en gitt kultur eller sosioøkonomisk gruppe

Implikasjon: Mye av det som omfattes av begrepet *goodness of fit* er subjektivt, og oppfatninger kan ha lite grunnlag i det observerbare

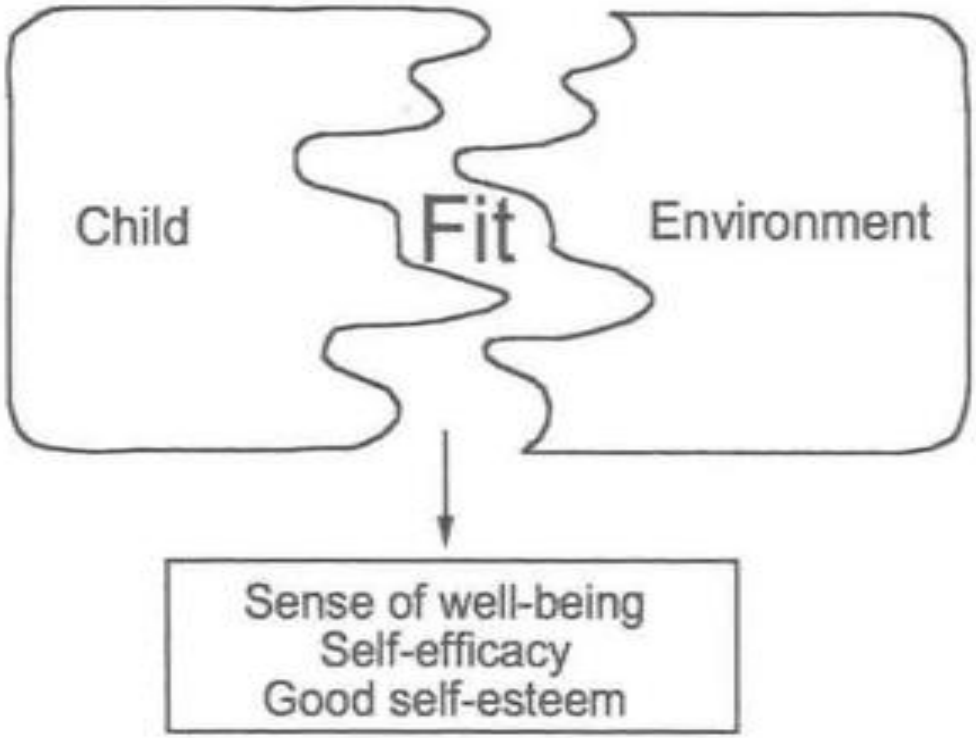
Barn som er vanskelig regulerbare har en annen innvirkning på foreldre i kulturer med tidsklemme, sammenlignet med foreldre i land hvor tidsfrister ikke er en sentral kulturell verdi

Tilpasninger avhenger like mye av karakteristika ved miljøet som av egenskaper ved barnet

- å skape en god tilpasning innebærer at man arbeider **med** barnets temperament, heller enn å arbeide **mot**, eller ved å forsøke å forandre det

En gjensidig god tilpasning fremmer positiv selvfølelse og oppmerksomhet på egenverdi, fordi barn blir sett ut fra hvem de **er** (heller enn hva de **gjør**)

Goodness of fit
(Thomas & Chess, 1977)



Praktiske implikasjoner:

For foreldre kan kjennskap til barnets temperament bidra til å ta vekk skyldfølelse, og føre til en mer optimal foreldrestil tilpasset det enkelte temperamentmønster

Hvis foreldre og lærere respekterer barnets væremåte så kan hun eller han bli trygge på seg selv og oppnå mestring ut fra eget temperamentsmønster

Grenser for anvendelse av ”goodness-of-fit”: For eksempel vil barn som er negative og lite fleksible finne færre nisjer enn de som er behagelige og tilpasningsdyktige

Validiteten til foreldrerapportering

- Samsvaret mellom foreldre og andre informanter er liten til moderat

- Foreldrekarakteristika har sterk innflytelse på rapporteringer av barnets temperament:

- Hva består *bias* i foreldrerapport av?

I tillegg til de enkelte atferdsutrykk har goodness of fit en kognitiv (*hvordan er atferden fortolket)*, og en affektiv komponent (*hva får observasjonene, fortolkningene og vurderingene en til å føle for barnet*)?

Systematisk variasjon atferdsobservasjoner/rapportering:

Kan reflektere foreldres arbeidsmodeller av barnet – for eksempel lite fleksible modeller med overopptatthet av ulike aspekter

Ports of entry: The three R's of intervention

Sameroff, 2004

- Redefinisjon: Når barnets uttrykk/væremåte eller egenskaper ikke kan forandres, eller foreldre har andre problemer. Definerer barnet som abnormalt. Forandringer i hvordan barnet blir oppfattet, normalisere utviklingsoppgaver, identifisere arbeidsmodeller (se Lieberman, 2009)

- Veiledning/opplæring: Når foreldre ikke har kunnskaper eller erfaringer med positiv regulering av barnets utvikling. Forandring i hvordan foreldre samhandler og tar vare på barnet i familiens økologi

- Direkte tiltak barnet: Forandre barnets tilstand: Identifiserbar tilstand, kurativ tilnærming. Indikert når rimelig forventning om at barnets tilstand kan bli bedret, påvirker omsorgspersoner

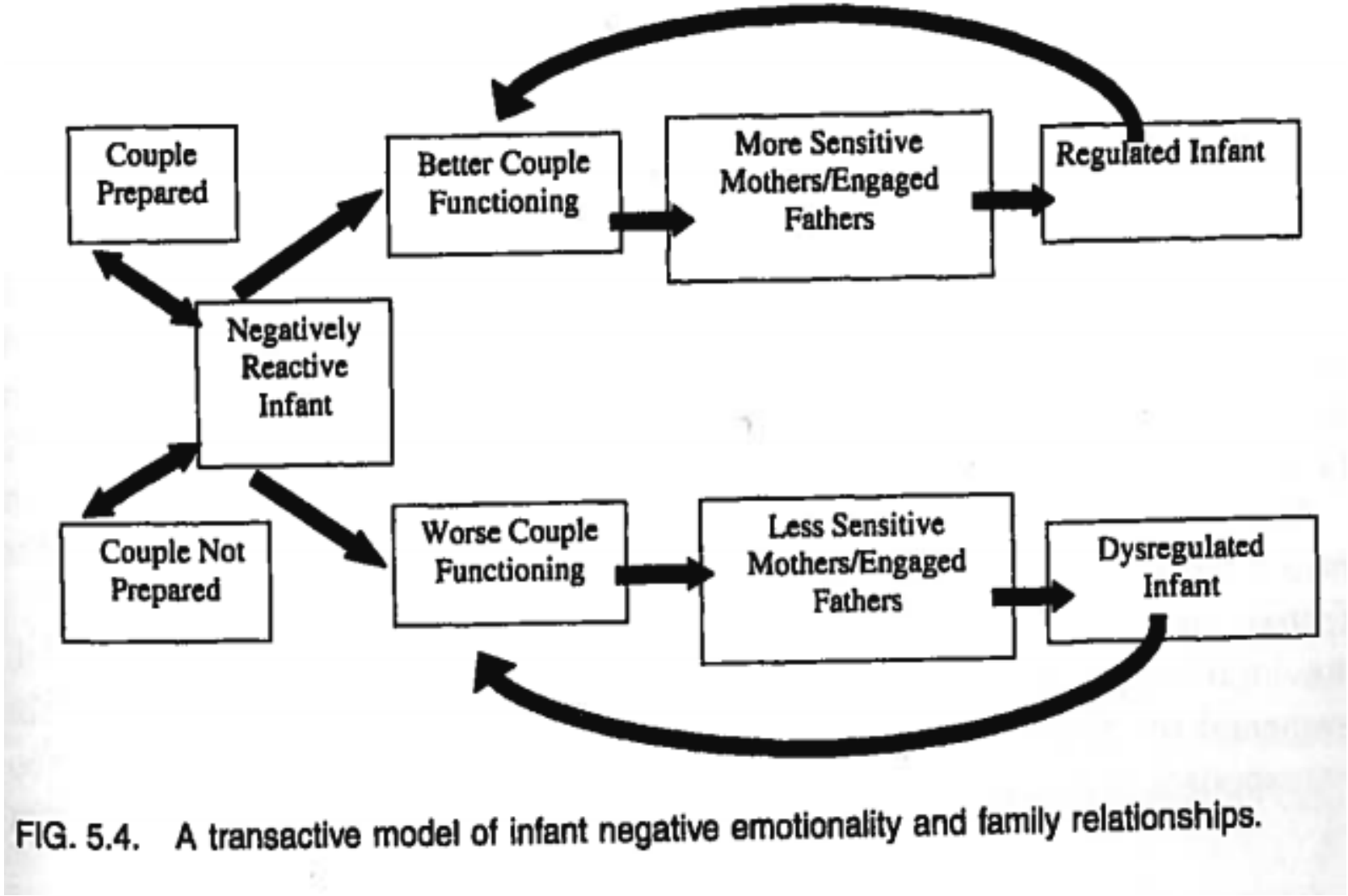
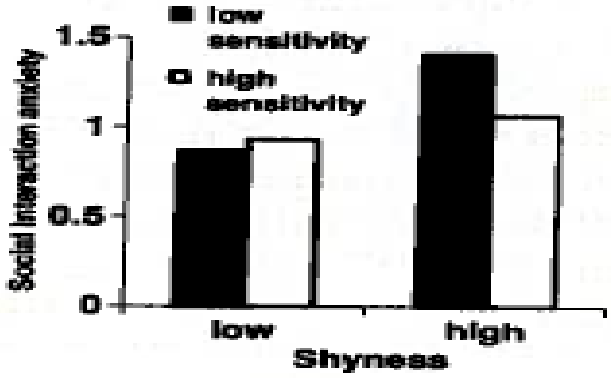
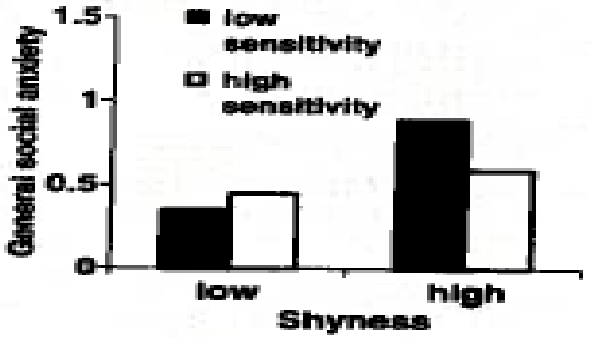
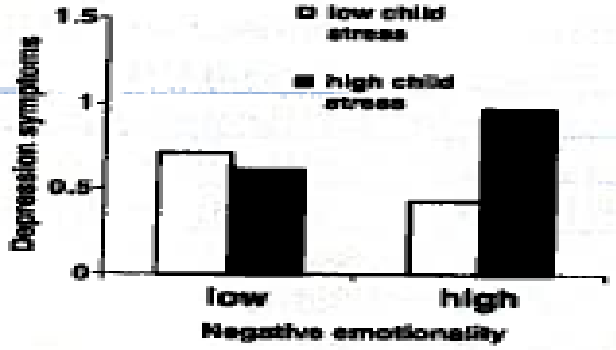


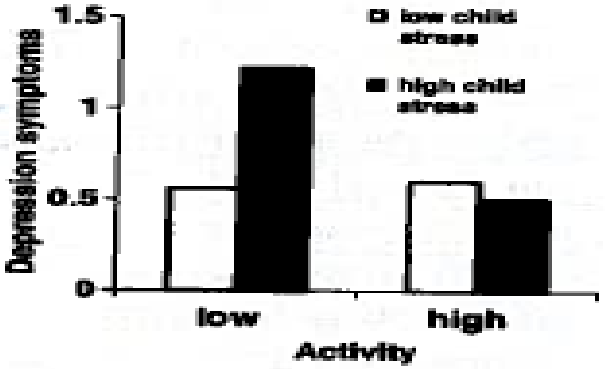
FIG. 5.4. A transactive model of infant negative emotionality and family relationships.

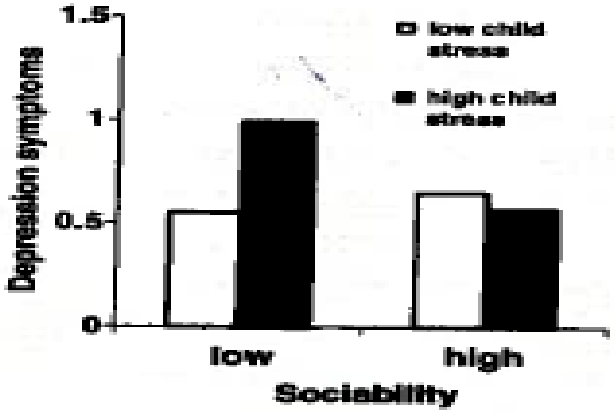
Omsorgsmiljøet - som bidrar til utvikling av tilknytningsforhold, bidrar også til å regulere barnets reaktivitet

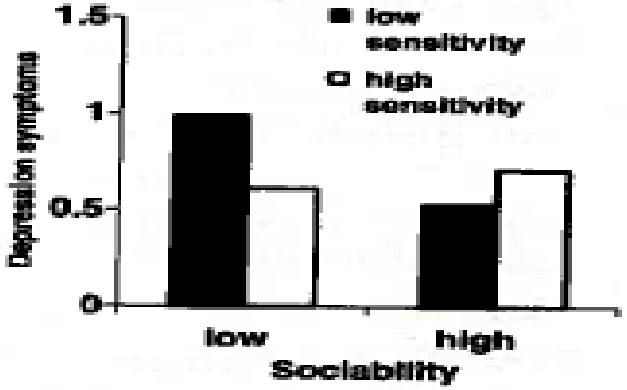

Social interaction anxiety
1.5
1
0.5
0
low sensitivity
high sensitivity
low
high
Shyness


General social anxiety
1.5
1
0.5
0
low sensitivity
high sensitivity
low
high
Shyness


Depression symptoms
1.5
1
0.5
0
low child stress
high child stress
low
high
Negative emotionality


Depression symptoms
1.5
1
0.5
0
low child stress
high child stress
low
high
Activity


Depression symptoms
1.5
1
0.5
0
low child stress
high child stress
low
high
Sociability


Depression symptoms
1.5
1
0.5
0
low sensitivity
high sensitivity
low
high
Sociability

CHILD DEVELOPMENT

Child Development, March/April 2015, Volume 86, Number 2, Pages 598–613

Infant Attachment Security and Early Childhood Behavioral Inhibition Interact to Predict Adolescent Social Anxiety Symptoms

Erin Lewis-Morrarty, Kathryn A. Degnan, and Andrea Chronis-Tuscano
University of Maryland

Daniel S. Pine
National Institute of Mental Health

Heather A. Henderson
University of Waterloo

Nathan A. Fox
University of Maryland

Development and Psychopathology **19** (2007), 1039–1046

Printed in the United States of America
DOI: 10.1017/S0954579407000521

Parenting quality interacts with genetic variation in dopamine receptor D4 to influence temperament in early childhood

BRAD E. SHEESE, PASCALE M. VOELKER, MARY K. ROTHBART, AND MICHAEL I. POSNER
University of Oregon

Abstract

We examined the influence of a common allelic variation in the dopamine receptor D4 (*DRD4*) gene and caregiver quality on temperament in early childhood. Children 18–21 months of age were genotyped for the *DRD4* 48 base pair tandem repeat polymorphism, which has been implicated in the development of attention, sensation seeking, and attention-deficit/hyperactivity disorder. The children also interacted with their caregiver for 10 min in a laboratory setting, and these videotaped interactions were coded for parenting quality using an observational rating procedure. The presence of the *DRD4* 7-repeat allele was associated with differences in the influence of parenting on a measure of temperamental sensation seeking constructed from caregiver reports on children's activity level, impulsivity, and high-intensity pleasure. Children with the 7-repeat allele were influenced by parenting quality, with lower quality parenting associated with higher levels of sensation seeking; children without the 7-repeat allele were uninfluenced by parenting quality. Differences between alleles were not related to the child's self-regulation as assessed by the effortful control measure. Previous studies have indicated that the 7-repeat allele is under positive selective pressure, and our results are consistent with the hypothesis that the *DRD4* 7-repeat allele increased children's sensitivity to environmental factors such as parenting. This study shows that genes influence the relation between parenting and temperament in ways that are important to normal development and psychopathology.

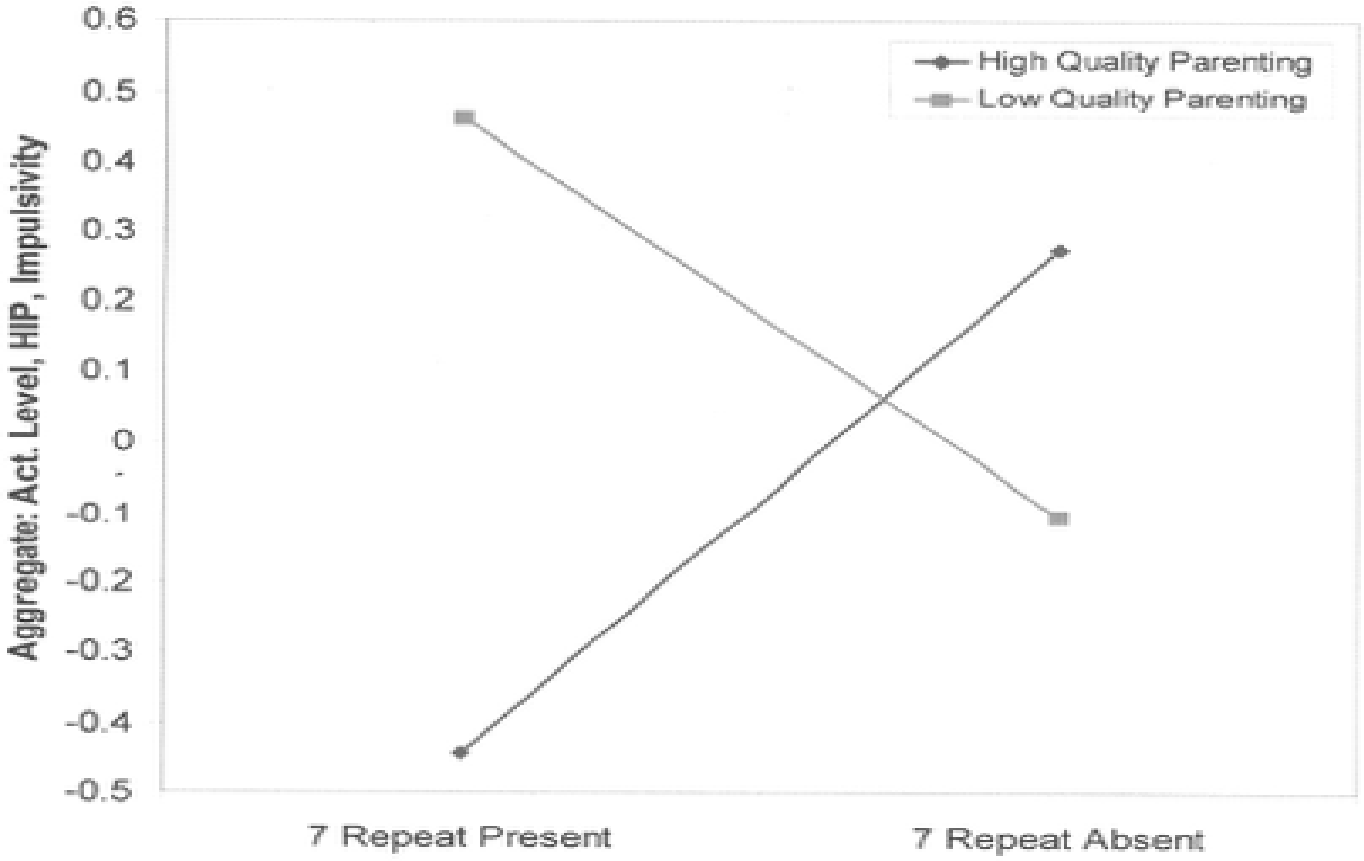


Figure 1. The presence of the 7-repeat allele of the dopamine receptor D4 gene interacts with the quality of parenting to determine three aspects of child temperament, activity level, impulsivity, and high-intensity pleasure that are aggregated into a measure of sensation seeking. [A color version of this figure can be viewed online at www.cambridge.org]

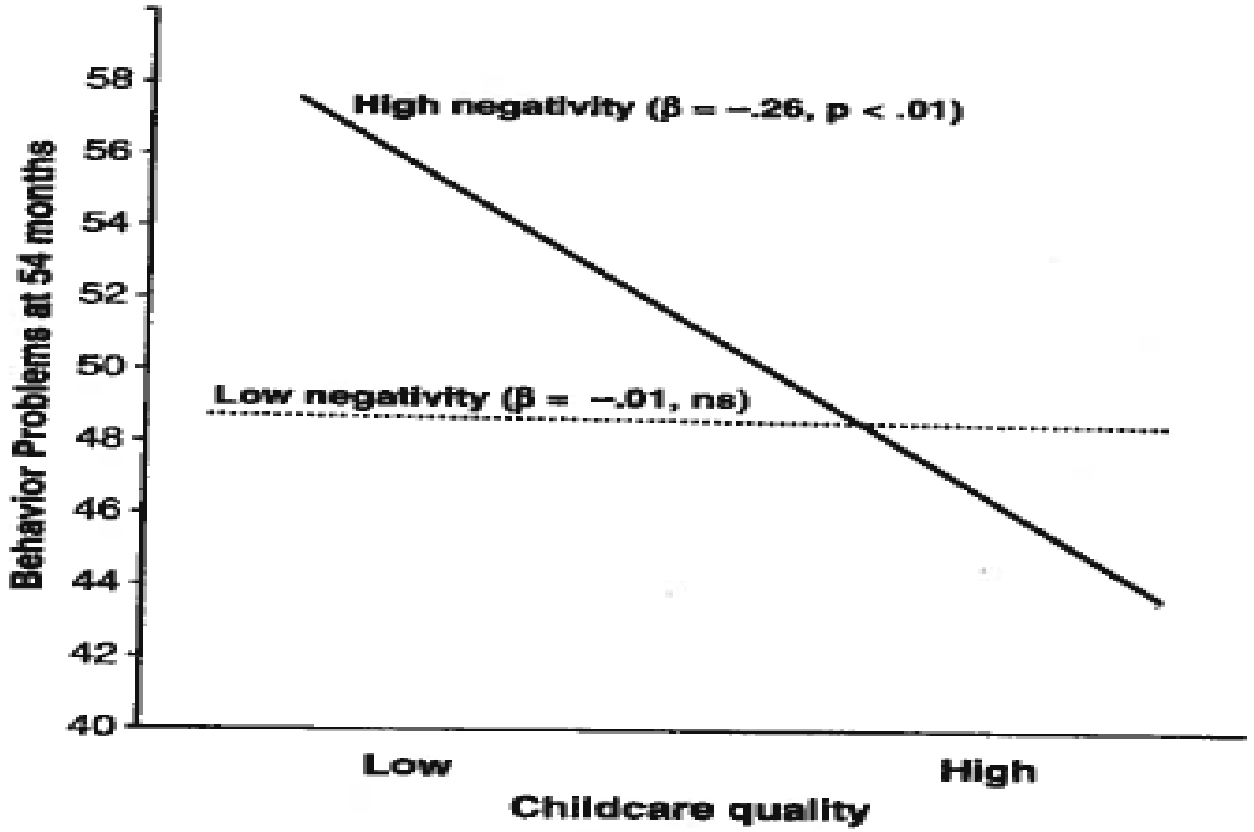


Figure 1 Childcare quality by child temperament interaction predicting teacher reported behavior problems at 54 months

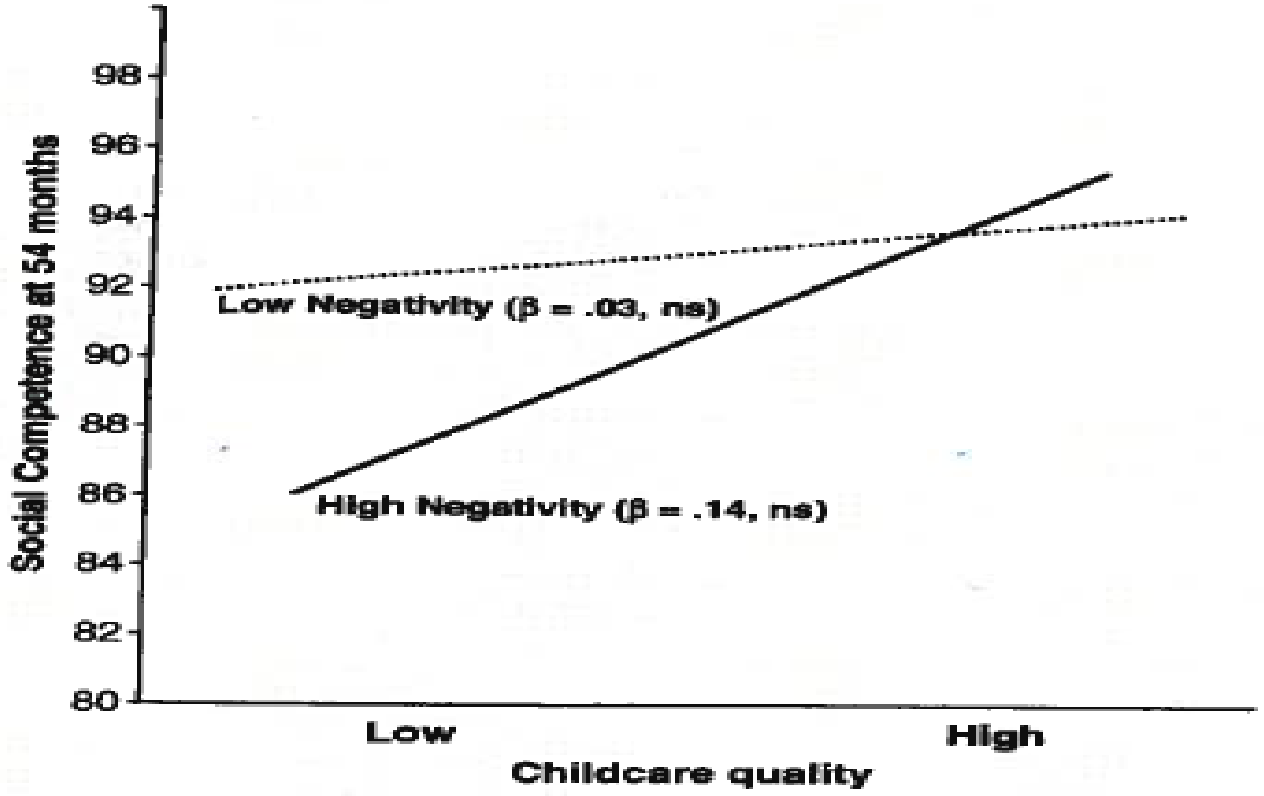
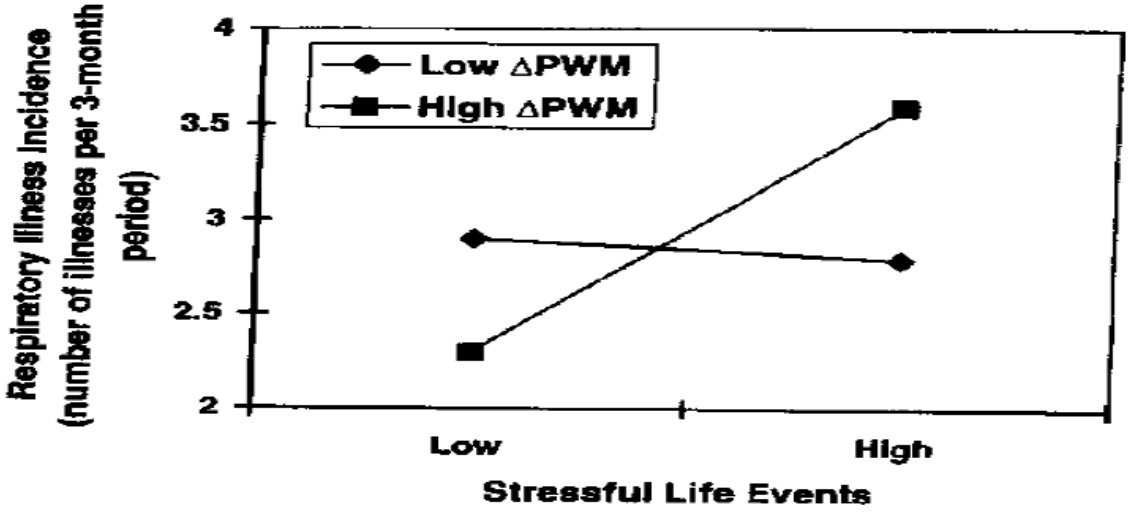
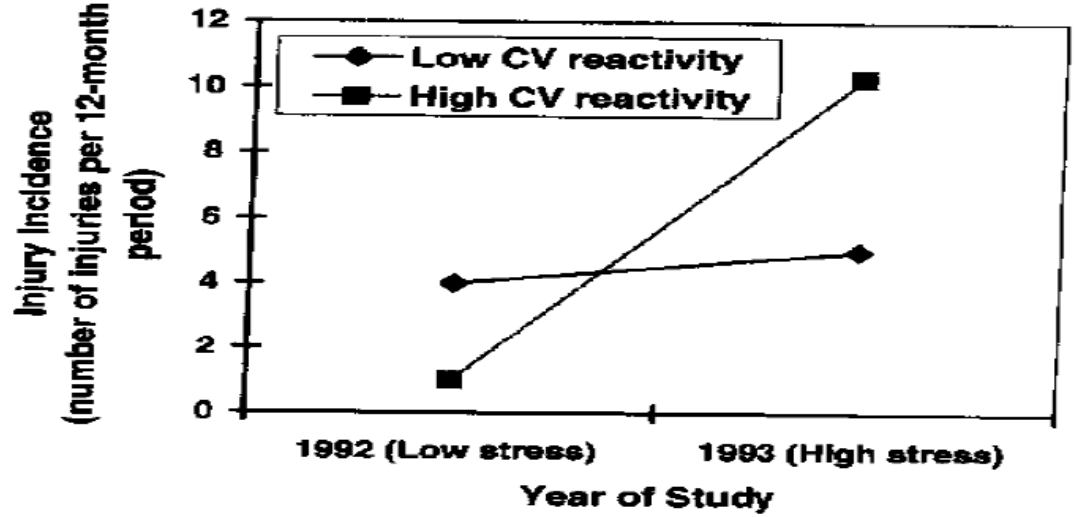


Figure 2 Childcare quality by child temperament interaction predicting teacher reported social competence at 54 months

Høyt reaktive barn med oppvekst i støttende (*supportive*) miljøer **mer** motstandsdyktige enn andre barn når det gjelder vanlig forkjølelse og andre luftveissykdommer, men blir lettere syk hvis de har hatt oppvekst under stressende betingelser (Boyce & Ellis, 2005)



A



B

Figure 1. The interactions among laboratory-based stress reactivity and environmental stressors in predicting health outcomes. (A) Immune reactivity (changes in pokeweed nitrogen response) × family stressful events and respiratory illness incidence in kindergartners ($N = 99$; adapted from Boyce, Chesney, et al., 1995). (B) Biobehavioral reactivity × confinement stress and injury incidence in a troop of semi-free-ranging rhesus monkeys ($N = 36$; adapted from Boyce et al., 1998).

Søndag 21. oktober 2012 Aftenposten

Gener, helse og miljø. For å kunne forebygge de store folkesykdommene er kunnskap om hvordan miljøet påvirker genenes aktivitet viktig.

Født sånn er mer enn gener

Kronikk

Tore Henriksen
professor dr. med, seksjonsoverlege, Fødeseksjonen, Rikshospitalet, Oslo universitetssykehus

humane genomprosjektet ble begrunnet med at den nye kunnskapen raskt ville få stor betydning både i forebyggende og behandlende medisin. Nå, vel 10 år etter, må vi innse at forventningene må dempes betraktelig. Erfaringen så langt kan kort oppsummeres slik: Kunnskapen om menneskets gener har ført til en eksplosjon av kommersielt tilgjengelige genetiske tester av usikker helsemessig betyd-

Mens man før måtte lete i høyet, fungerer ny bioteknologi som en magnet som trekker nålene ut. Da finner man ikke bare én nål, men hundrevis! Hvilke av nålene er det vi leter etter?

Dette illustreres med at det hittil er funnet ca. 1300 genområder (loci) som kan settes i sammenheng med ca. 200 sykdomstilstander. Umiddelbart virker dette fascinerende. Men én ting er å finne at et

- Sensitiv omsorg – blikk for barnets særegne reaksjons- og væremåter

- Tilknytning som emosjonsregulering: Oppdage, akseptere, benevne, og forklare barnets følelser - veilede i regulering/håndtering

Temperamentsteori handler om hvordan barn bidrar til egen utvikling. Alle barn har temperament, mens bare et mindretall har abnormaliteter i hjernen

Min självsäkerhet beror på att jag har upptäckt mina dimensioner. Det anstår mig icke att göra mig mindre än jag är

Edith Södergran, 1918

Check out “Temperament - Zero To Three Magic of Everyday Moments” by ZEROTOTHREE on Vimeo.

The video is available for your viewing pleasure at
http://vimeo.com/103169734

http://www.child-encyclopedia.com/temperament/introduction