

# Roots of Empathy

## RESEARCH SYMPOSIUM

TORONTO, CANADA

MAY 11-13, 2015

## PROCEEDINGS



Roots of Empathy  
Racines de l'empathie

[www.rootsofempathy.org](http://www.rootsofempathy.org)

## Introduction

The 2015 Roots of Empathy Research Symposium was a dynamic and inspiring gathering in Toronto, Ontario, Canada. Dr. Bruce Perry's keynote address on why empathy is essential and endangered launched the event. Over the next 2 days, leading-edge international scientists from Canada, United States, and the United Kingdom continued to discuss various research programs under the overarching theme of social-emotional development. Riveting addresses by Dr. Jay Belsky, Dr. Nathan A. Fox, Dr. Ross A. Thompson, Dr. John Frank, Dr. Kent Harber, Dr. Tina Malti, Dr. Keith Oatley, and Dr. Normand Carrey elicited insightful dialogues around the topics of differential susceptibility to environmental influences, temperamental links to social competence, development of prosocial motivation, the bio-psycho-social determinants of health, emotional disclosure, empathy and moral development, empathy and reading of fiction, and the impact of neuropsychiatric conditions on empathy. A thought provoking panel conversation moderated by Mary Ito, host of CBC Radio's Fresh Air, engaged panellists Mary Black, Dr. John Frank, Mary Gordon and Dr. Ross A. Thompson in a global discussion on bridging the gap between research and policy.



*Elder Garry Sault delivered the Opening Ceremony at the Roots of Empathy Research Symposium*

Roots of Empathy values the lens of research as the organization continues to provide empathy-based programming to children on three continents. We would like to thank the Ontario Ministry of Education for supporting the 2015 Roots of Empathy Research Symposium.



*Mary Gordon  
Founder/President*



*Lisa Bayrami, PhD  
Director of Research*

# Born for Love: Why Empathy is Essential and Endangered

## BRUCE D. PERRY MD, PHD

*Senior Fellow of the Child Trauma Academy  
(Houston, TX)*

*Adjunct Professor of Psychiatry and Behavioural Sciences  
Feinberg School of Medicine (Chicago, IL)*

I want to talk about some things that will make you think more deeply about what is happening in our communities and our culture; hopefully this will highlight the incredible importance of Roots of Empathy to our society.

We are all involved in a trans-generational process of creating the future. Sociocultural evolution is a property of the human brain – most specifically our cortex – to make memory – to absorb the accumulated learnings of previous generations. We make both intentional decisions and inertial choices on what we pass to the next generation. So what do we choose? As a society we have emphasized cognitive enrichment – language, history, math. Yet in the recent decades we have neglected the importance of relationships and socioemotional domains. Healthy relationships are much more integral to our health and welfare than most people understand.



*Bruce D. Perry*

## The power of relationships

For thousands of generations, humans have lived in small multi-family, multigenerational groups. Up until the Industrial Age, humankind lived in various forms of these small, relationally-enriched groups. The caregiving “ratios” were very different; for each young child there were roughly four developmentally more-mature individuals who could be involved in nurturing, teaching, disciplining and modeling for the developing child. This is dramatically different from what we have today, where in child care we can potentially have one caregiver per six children. At the same time, our households have become smaller with up to one-third of all households consisting of one person, and an overall average of just three people. Children spend increasing amounts of time in front of a screen (up to 11 hrs for American youth), and we group children together who are at the same developmental stage in the classroom. In essence, we have created an environment that is relationally impoverished. There are far fewer opportunities for conversation, touch, and other brain-enriching social interactions. These profound shifts in the relational aspects of our society are impacting the fundamental architecture of the relational neurobiological networks in the brain, compromising the potential to fully express our capacities for humane empathic interactions with others.

*“The beauty of Roots of Empathy is that it intentionally and effectively addresses the fundamental relational poverty that our society is experiencing.”*

The human brain develops as a reflection of the individual’s experience. A primary principle of neuroplasticity is “use-dependence.” Simply stated, neural networks that receive repetitive, appropriately timed stimulation will organize and function well. Neural networks, including those involved in language, motor skills and a host of other key brain-mediated functions will develop optimally with repetition. Currently, a child in the typical family experiences 1/20th of the direct interpersonal interactions a child in a hunter-gatherer group would experience. The neural networks mediating social functioning in the modern, typical child have only 5% of the opportunities for social repetitions that a “primitive” child born a thousand years ago had. Which child is likely to be more empathic – a better citizen of his community and clan?



*“Roots of Empathy can be so crucial to stem some of the tide of relational poverty that our children are growing up in.”*

Children today experience relational poverty. The possible implications of this relational poverty are increased self-absorption, increased bullying, and unhealthy, immature relational behaviour. Research findings in large cohorts that may support this theory include:

- There has been a shift in the last decade in the scores of young Americans on the Minnesota Multiphasic Personality Inventory (MMPI); five times as many Americans score above the cut –offs for psychopathy as in decades past
- Cohorts of college students show a decrease in empathy; the last decade has seen a 30% decrease in empathy scores
- Decreased engagement in civic life; the younger you are, the less likely you are to vote, with only 45% of 18-29 year olds voting in the United States Presidential election.

### On becoming humane

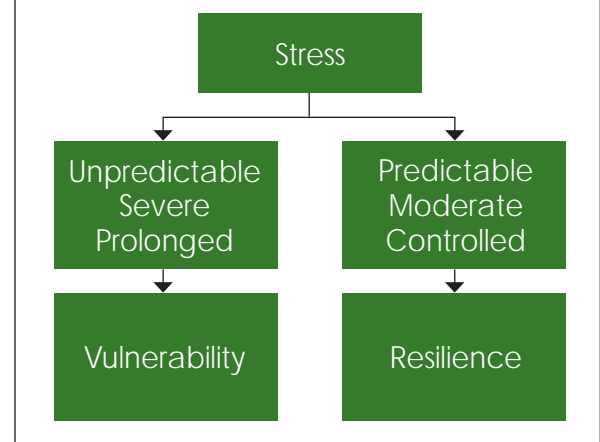
The compartmentalization of how we currently live contributes to the relational poverty observed. As a society we have not been able to adapt as quickly as we have been able to invent. Instead, we have reached a point where the teaching of how to share, how to make eye contact and converse, may be as important as the traditional school curriculum.

The brain is a product of the child’s developmental experience, and if a child experiences relational poverty, he may risk growing up to be self-absorbed with few or immature social skills. Furthermore, the frenzied, disconnected lifestyles in our society undermine the creation of strong relational networks that we all need to face the inevitable stressors and adversities of life.

Human to human interactions are physiological events. When a child feels warmth and nurturance, she will become physiologically regulated and, feel safe and calm. With a network of many nurturing, stable relationships a child will experience repeated positive, regulating and rewarding interactions each day. These relational networks provide “doses” of positive, relational repetitions for the brain. In contrast, if disengaging and distressing experiences are repeated in a persistent way, the stress response systems become ‘sensitized’ (overactive and overly reactive) and a host of physiological changes can occur. Predictable doses of moderate stress build resilience and patterns of unpredictable or prolonged, uncontrollable stress result in sensitization and thereby a host of physical, social, emotional, and cognitive problems.

Simply stated, healthy relationships will buffer life’s inevitable stressors and help create a healing environment for anyone dealing with trauma-related problems.

Figure 1. Differential effects of stress



*“Roots of Empathy is critically important as a resiliency building program. It teaches children how to develop a comfort level with creating relational opportunities.”*

If a child has a relational milieu that is rich, she can use this milieu to heal from stress. Relational health buffers you from adversity and gives you resilience. At the core of being able to take advantage of the relational milieu is your own capacity to engage with others. This is where Roots of Empathy comes in.

The Roots of Empathy program teaches children how to do this. It helps children to develop a comfort level and build repetitions by creating relational opportunities. These are effective doses of regulation and reward that help build in and organize the developing architecture of the brain's relational networks.

## Summary

You can and will have adversity in your life. Nobody escapes this, but the communities, families and individuals that have a strong relational milieu will be able not only to buffer some of the acute adversities, they will be able, over time, to transform this adversity into wisdom.

The irony about adversity is that it can ultimately lead to forms of wisdom and compassion that are hard to get to without adversity.

We need to get better at ensuring that the children we raise are given the same intentional proactive gifts of social emotional health as they are getting through our intentional actions to grow cognitive skills. I think this will become one of the major tasks of our culture and planet because the more human beings there are on this planet, the more we need to take advantage of our relational gifts in order to learn how to live together in a respectful, empathic way.

## Differential susceptibility to environmental influences

### JAY BELSKY, PhD

*Robert M. and Natalie Reid Dorn  
Professor of Human Development  
University of California Davis*

The prevailing model used to explain how human development is influenced by environmental experiences and exposures is the diathesis-stress theory. This theory holds that there are individual differences in sensitivities to negative/stressful environmental conditions and that some people are more susceptible than others to adversity.



*Jay Belsky*

I would argue that the diathesis-stress theory tells only half the story and thus propose a theory of differential susceptibility; that individuals do not only vary in their vulnerability to adverse environmental conditions but more generally—and thus to both positive and negative environmental conditions. In other words some are more developmentally plastic or malleable than others. The solid green line in the figure reflects the diathesis-stress view of development (i.e., some are more “vulnerable” than others to negative environmental conditions); the dotted green line depicts, in contrast, the differential-susceptibility view (i.e., some are more susceptible to both negative and positive environmental effects).

While this notion of differential susceptibility to environmental influences began as a theoretical argument there is emerging empirical evidence to corroborate this theory. Indeed, there is evidence that temperamental, physiological and genetic characteristics distinguish individuals who are more and less susceptible—for better and for worse—to environmental exposures (e.g., poverty) and developmental experiences (e.g., harsh parenting).

Research on temperament indicates that more negatively emotional infants and toddlers are more adversely affected by negative conditions but, somewhat surprisingly, also benefit more from positive ones than do children who are temperamentally different. Evidence to this effect has emerged in work focused on how growing up in a home in which there is much and little marital conflict or exposure to good and poor quality day care affect behavioural development.

At the physiological level, it appears that it is children who are highly reactive, generating high levels of cortisol when stressed, who benefit the most from support and enrichment but suffer the most from conditions of adversity.

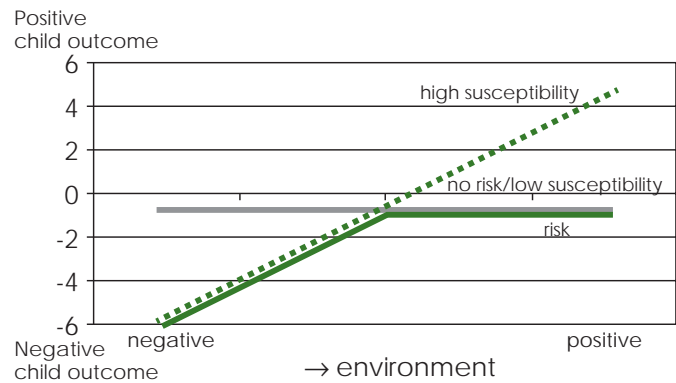
Finally, there are specific variants of particular genes that seem to predispose some individuals to be highly responsive—for better and for worse—to environmental conditions. For example, whereas individuals carrying short alleles of the serotonin transporter gene (*5-HTTLPR*) appear especially susceptible to both positive and negative environmental effects, those who carry only long alleles appear far less affected by exposure to good and bad environmental conditions.

But rather than thinking just in terms of some individuals being highly susceptible and others not at all, it is probably best to think in terms of the degree to which they are susceptible, with some being very, some moderately and some perhaps not at all susceptible.

What is especially interesting is that there is evidence that those who carry more plasticity alleles or who have more negative temperaments appear more likely to benefit from interventions design to *remediate* existing problems, prevent problems from occurring in the first place or *promote* positive functioning.

Looking ahead, there is a need to debate what is the best way to move forward with interventions. Should we target those children who are more susceptible versus those who are not—if and when we are able to identify them with sufficient accuracy? While some emphasize equity for all, this position could be challenged. What are the ethics of treating everybody regardless of potential benefit in the face of limited resources? Indeed, is there wisdom—and humanity—in spending scarce or limited resources on those less likely to benefit if it entails not being able to provide services to those more or most likely to benefit?

#### Diathesis-Stress vs. differential susceptibility



Bakermans-Kranenburg & Van IJzendoorn, 2006

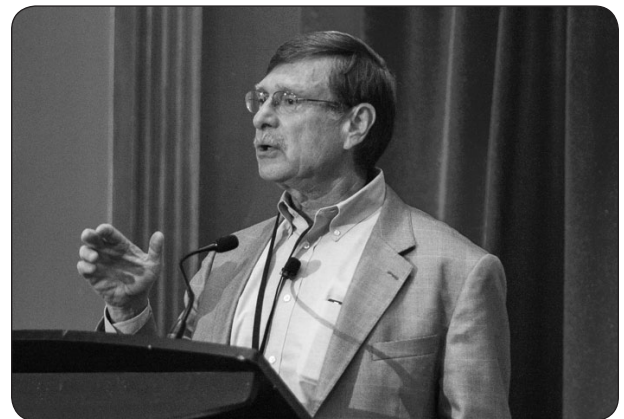
## Temperamental links to social competence: The roles of automatic and controlled processes in emotion regulation

### NATHAN A. FOX

*Distinguished University Professor  
University of Maryland*

The notion of temperament dates back to the Greeks. Developmental psychologists only began to study temperament in the late 1960s beginning with the work of Thomas and Chess. Temperament is an individual trait that is present from birth, heritable and stable. My work has focused on studying children who are temperamentally fearful (shy) and seeking to understand how they react to and process the world around them. This talk will focus on those individual differences in temperament and emotional regulation in children.

Individual difference in temperament can be seen as early as infancy and over the years, different theories have been suggested to explain these differences and their importance.



*Nathan A. Fox*

Temperament theory proposed that we have a set of early appearing, relatively stable, biologically based behavioural and emotional tendencies.<sup>1</sup>

- Dimensions include
  - Negative Emotion
  - Positive Emotion
  - Cognitive Control
- Dimensions map onto
  - Neural systems
  - Adult personality

### Individual differences in response to unfamiliarity, novelty or threat

Research has shown that individual reactions to novelty are stable by 4 months of age and are predictive of either inhibitive or exuberant behaviour in toddler years.

When followed over time, those infants who were highly reactive at 4 months and inhibited as toddlers continued to demonstrate behavioural inhibition (BI) as children and displayed the following characteristics:

- Behavioural
  - Low self esteem
  - Poor peer relationships
  - Victims of bullying
- Physiological
  - Elevated morning cortisol levels
  - Enhanced autonomic reactivity
  - Enhanced startle responses
  - Right frontal EEG asymmetry

These children were also shown to have low social competence and social initiation with unfamiliar peers. This creates more difficulties as they age and move onto bigger environments such as bigger classes and peer groups in high school. It is much more difficult for them to adapt.

This temperament confers an increased risk for the development of social anxiety and 45% of those with BI may go on to develop social anxiety. I am interested in studying why some children develop anxiety and others do not. What is it that makes the difference in those children with BI who do not develop anxiety? In particular, what individual and contextual factors might predict which children will go on to develop anxiety?

In my lab, we are following 2 cohorts (n=156 and n=500). We selected infants at 4 months of age and have followed them over time, the first cohort now being followed into adulthood. We are seeking to identify biological markers that will predict which children with BI will develop social anxiety.

The dual processing model in which both automatic and regulatory processes are involved, and the interaction between these, may explain the development of social anxiety in individuals with BI.

#### Automatic responses

- BI is associated with enhanced reactive processing of salient cues in environment
  - Attention is captured quickly by motivationally-significant cues
  - Three factors: novelty detection, attention bias to threat and salience
- The magnitude of these biases are associated with anxious behaviours for children with a history of early BI
  - Developmental pathway maintaining anxious cognition

#### Reactive/controlled processing

- Controlled Processing
  - Monitoring, evaluating, modifying responses to support goal-directed behaviour
  - Show developmental progression

#### Compliance → Self-Control → Self-Regulation

- Controlled processing may not provide the same regulatory benefits for children with high BI as it does for non-BI children

Development of self-control is a key developmental milestone for preschoolers. Self-control or inhibitory behaviour in childhood is associated with better health, social and financial success into adulthood.<sup>2</sup> And yet in children who are BI, their inhibitory control increases their risk for social anxiety.

## BI and dual processing model

Reactive/automatic processing	Reactive/controlled processing
<ul style="list-style-type: none"> <li>• Early appearing</li> <li>• Stimulus driven</li> <li>• Reflexive and fast acting</li> <li>• Attention orienting</li> <li>• Superior colliculus, amygdala, pulvinar, parietal lobe, v1PFC</li> </ul>	<ul style="list-style-type: none"> <li>• Later developing</li> <li>• Goal directed</li> <li>• Deliberate, anticipatory and sustained</li> <li>• Executive attention</li> <li>• Anterior cingulate, anterior insula, basal ganglia, d1PFC</li> </ul>

Barett et al., 2004; Eisenberg et al., 1994; Norman & Shallice, 1986; Rothbart & Bates, 2006; Strack & Deutsch, 2004

### Summary and key findings:

- Behavioural Inhibition is one the best defined early childhood phenotypes predicting psychopathology in adolescence
  - increased risk for social anxiety
  - but not all those with BI develop social anxiety
  - and not all adolescents with social anxiety have history of early childhood BI
- Early reactive and later developing controlled processes jointly influence later risk
- Cognitive control processes may not be adaptive for all children
  - Lack of universal support for top-down model of control
  - Rather, high levels of control may potentiate risk for BI children
    - Positive feedback loop between reactive and controlled processes
- Implications for interventions: teaching flexible self-control

In summary, individual differences in temperament mean that one-size interventions do not fit all. We need to be aware not only in infancy but also across the lifespan and particularly in childhood as we are administering interventions in emotional regulation to ensure the best possible outcomes.

1 Rothbart & Bates, 1996; Rothbart, 2011

2 Newman, Caspi, Moffitt & Silva, 1997



*Grade 7 and 8 students, Reduan Haque, Naytani Loder-Frame, Karen Yousef, and Ashia Cotterelle (left to right), from Market Lane Public School reflected on their experience with Roots of Empathy*



# Baby altruists? Exploring the early origins of prosocial motivation

**ROSS A. THOMPSON, PhD**

*Distinguished Professor of Psychology  
University of California, Davis*

How does constructive social motivation develop early in life? In other words, how do young children learn to care about other people? In our lab, we have addressed this question through studies of emotion understanding, the development of conscience and the growth of prosocial behaviour early in life.

Prosocial behaviour describes volitional actions that benefit others. It can be studied as children's helping, sharing, or empathic responding. Children are, from a young age, willing to help another, but this has typically been studied in response to familiar people, such as parents.

Our work addresses philosophical as well as psychological questions about the motivation to help other people. On one hand, young children's assistance to familiar people (such as family members) is sometimes interpreted as not genuinely prosocial and consistent with a Hobbesian view that young children are "baby egoists" who are self-interested and expect that any assistance they give will be reciprocated in the future. On the other hand, recent evidence that young children will help strangers (without maternal prompting or rewards) has been seen as supporting Rousseau's view of the "baby altruist" who is inherently positive, compassionate, and constructive toward others.

I instead advocate a more complex developmental perspective. I propose that early-emerging social-cognitive understanding provides the basis for a pre-moral sensibility that underlies young children's social evaluations and motivates prosocial behaviour and socially constructive actions. These "moral primitives" develop in the context of sensitive and warm parent-child interactions. Conversational discourse is key in the growth of socio-moral motivation, linking the child's intuitive moral sensibility to explicit moral understanding.<sup>1</sup>

This premoral sensibility derives from the sensitivity of young children to other people. Near the first birthday for example, infants become aware of another's intentions and goals. Children perceive an adult's actions as intentional in order to achieve a goal. This understanding of intention is a developmental cornerstone for the growth of shared intentionality. Shared intentionality involves entering into another's intentions, and it can be observed in infants' pointing and in toddlers' collaborative problem solving and cooperative social play.

Shared intentionality has two other manifestations: helping behaviour and young children's responses to helpers and hinderers. First, helping involves entering into another's intentions and, although it is prosocial for this reason, it is not necessarily governed by altruistic motives. Second, judgments of helpers and hinderers derive from the child's ability to evaluate the effects of another's behaviour on the goals of a third party. Preschool children can be observed rewarding those who assist another, punishing those who hinder another from accomplishing their goals, and offering assistance to those victimized by the hinderer. We might characterize these reactions as "fairness."

Emotion understanding is another social-cognitive process, in addition to understanding of intention and shared intentionality, that contributes to the child's pre-moral sensibility. It provides a foundation for empathy and compassionate responding. Understanding others' emotions is a complex challenge for young children, however, which is why adult guidance is necessary.

Research in our lab has shown that individual differences in various forms of prosocial behaviour – helping, sharing, and compassionate or empathic responding – are consistent across different forms of prosocial responding. In other words, children who help more frequently also tend to share and respond compassionately to another person in distress. Moreover, these individual differences are consistent over time. In one study of children observed at age 4 ½ and 6 years, children tended to respond similarly at each age. This suggests that individual differences in prosocial motivation emerge early.



*Ross A. Thompson*

We have also found that individual differences in prosocial motivation are affected by aspects of the mother-child relationship, especially maternal sensitivity and the mother's more positive, psychologically-oriented approach to her child. Children's capacities for emotion understanding of another are also important.

## Summary

A developmental perspective shows that young children are neither "baby egotists" nor "baby altruists," but develop a prosocial orientation toward others through growth in their own understanding of people and the sensitivity and guidance in how they are treated by those who care for them.

1 Thompson, 2012

## The bio-psycho-social determinants of health: A nautical journey

### JOHN FRANK, MD

*Director, Scottish Collaboration for  
Public Health Research and Policy*

*Professor and Chair, Public Health Research and Policy  
University of Edinburgh, UK*

Much of this work can be attributed to my mentor, Fraser Mustard, who began it in the 1980s. I work with Scottish Collaboration for Public Health Research and Policy addressing two key questions;

- what are the public health and primary care interventions that can improve health status in Scotland and;
- how capable are these interventions at also reducing socio-economic health disparities and what is the timeframe for results.

Good health is much more than just good health care. There is no connection between the number of physicians in a country and mortality rates. This can be attributed to both the ways in which health care is often delivered and to the influence that early life experiences and social conditions have on one's health.

"Your health is a function of much more than the health care you receive...on the "ship of life," a good ship's doctor alone is not enough"

"The ship you sail on in life – i.e. the society you live in – has enormous influence on your lifelong health and function, no matter how competent and healthy your personal habits are."

There are examples of countries where infant mortality rates have changed significantly over time and are now among the lowest in the world. The work of Hasegawa examined this change and found that social policy in the 1890s that addressed women's education was largely responsible, however it did take a generation for results to be seen.

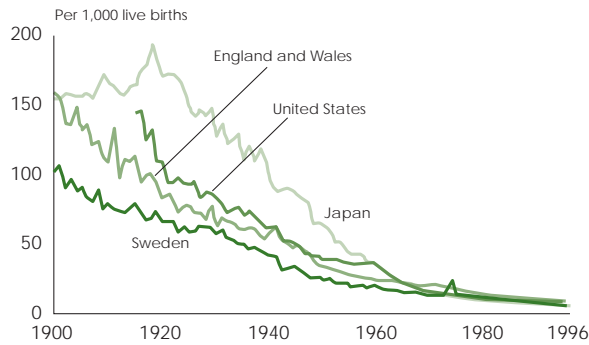
Conversely, the former USSR experienced a drastic worsening of health with mortality rates being up 2 fold during between the years 1984 and 1994 when there was significant instability in the region.

"And so while the country or region into which you are born, the ship, matters what matters even more is your socio-economic status (SES) within the country – what rank you hold within the ship's crew."



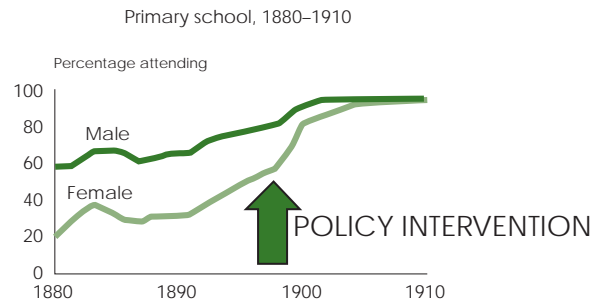
*John Frank*

### Trends in the infant mortality rate in selected OECD countries, 1900-96



Source: T. Hasegawa, Chapter 8 in: Tim Evans et al. Challenging Health Inequities. OUP. 2001.

### Trends in school attendance rate by sex in Japan, 1880-1997



Source: T. Hasegawa, Chapter 8 in: Tim Evans et al. Challenging Health Inequities. OUP. 2001.

SES influences health across various diseases, in a fairly consistent monotonic pattern of risk and is resistant to change. In other words, the poor will get disease more often and worse than the rich. These socioeconomic inequalities with respect to morbidity and mortality, typically exhibit continuous gradients, no matter where they occur.

Modern day Scotland is an example of the ways in which health inequities present across SES. Social and health policies have been put in place to attempt to mediate this relationship and very sophisticated health inequities (HI) indicators have been developed to track these potential changes over time.

What this Scottish experience shows is a very gradual and in some cases non-existent change across various HI indicators despite the public health initiatives. This calls into question whether changes can be expected in a short time given that:

- Life expectancy and all cause mortality is subject to epidemiological momentum/inertia
- The consequences of early life deprivation are deeply embedded in a person's mind and body

“Your experience on the ship in early life is more important than the rest of the journey, for it sets much of your status, the health and functional effects which track you for life”

The influence of early life has taken its toll and little can be done to correct it. The relationships between children's literacy rates, an indicator of their learning success, is tied to their parents level of education, but this does NOT hold true across all nations. In north-west Europe, for example, universal and high-quality early childhood education, as well as equitable school systems, have “levelled that playing of life” for some decades. In short, it can be done!



*Four parents (Sabrina and Peter Morey, Gabrielle Moore and Heather Roberts) who volunteered with their infants reflected on their experience with the Roots of Empathy program*

# Opening up, letting go, and connecting: How emotional disclosure affects social judgment

**KENT D. HARBER, PhD**

*Associate Professor of Psychology  
Rutgers University at Newark*

Getting along with others often requires keeping our thoughts and feelings to ourselves. But there may be costs to emotional suppression that ultimately harm rather than help how we see and judge others. Conversely, expressing thoughts and feelings, even discomforting ones, may advance empathy. My research examines this connection between disclosure and social judgement.

The need to disclose emotions is a fundamental, cross-cultural aspect of human nature<sup>1</sup>. Often this need is blocked by others' disinterest or distress, or by our own unwillingness to confront painful thoughts and feelings. The resulting suppression can be harmful. As my colleague James Pennebaker<sup>2</sup> shows, chronic suppression impairs immune functioning, leading to physical illness. Disclosure, in contrast, boosts immune function, leading to improved physical health and better management of chronic diseases, including diabetes and asthma. Disclosure also improves mental health and even cognitive functioning, such as short-term memory.

Does disclosure also improve interpersonal health? In particular, does emotional disclosure help us see others more sympathetically? My colleagues and I have been exploring this question. One set of studies tested whether emotional disclosure advances forgiveness.<sup>3</sup> In these studies subjects recalled one of three types of social contacts. "Betrayed" subjects recalled someone with whom they were once close, but who had gravely betrayed them, "neutral" subjects recalled someone toward whom they had no strong feelings, and "positive" subjects recalled someone with whom they enjoy warmth and trust. After recalling their assigned person, subjects completed a writing task wherein they either disclosed their thoughts and feelings or wrote only factually and unemotionally. Subjects then rated how close they felt towards the person they had written about. As predicted, emotional disclosure led to greater closeness—but only among those who recalled a betrayer. Furthermore, the more hostile emotions these "betrayal" subjects disclosed, the closer they felt toward their betrayer.

A second set of studies tested whether emotional disclosure reduces victim blaming.<sup>4</sup> On the surface, victim blaming appears paradoxical. Why would we blame those who were harmed by others, thereby adding insult to the victims' injuries? Psychologists studying this issue say that we blame victims to protect ourselves from the distressing emotions that victims arouse in us. If victims' situation can be attributed to their own poor judgment or bad character, then our world may appear less capricious and unjust. But if blaming arises from disturbing emotions, then addressing those emotions through disclosure should reduce the need to blame. Our research confirmed that this is so. Subjects viewed one of two film clips. "Victim" subjects viewed the rape scene from the movie, *The Accused*, and "Non-Victim" subjects viewed documentary footage of Margaret Thatcher. Subjects then completed a writing task, similar to that used in the forgiveness studies, wherein they either disclosed or suppressed their emotions. A week later subjects returned and evaluated the blameworthiness of woman they had viewed (the victim in *The Accused* or Margaret Thatcher). As predicted, disclosure reduced blaming, but only for the rape victim. Further, the more distress subjects disclosed, the less they blamed the victim. Interestingly, disclosure did not reduce blaming for the rape-victim's attackers, indicating that disclosure does not dampen all negative emotions, only those aroused by the victims.

A third line of research shows that disclosure moderates our perception of others' distress.<sup>5</sup> We often use our own emotions to make sense of others' feelings. But if our own emotions are suppressed, they may become surcharged, leading to amplified judgements of others' states. We tested this in a study wherein subjects recalled either a past betrayal or a neutral encounter, and then disclosed or suppressed their emotions (as done in the disclosure and forgiveness studies). Subjects then heard a series of infant cries, and rated the infant's distress based on these cries. Subjects who recalled a past betrayal and suppressed their emotions rated the babies as more distressed than did subjects in any other condition. But betrayal subjects who disclosed their emotions did not amplify baby cries. In effect, suppressing negative emotions



*Kent D. Harber*



biased perception of the babies, but disclosing negative emotions corrected this bias.

Emotion theory provides clues on how disclosures improves social perception. Emotions arise from discrepancies between what we expect and what occurs. They focus attention on these discrepancies, and continue to do so until the discrepancies are resolved; that is, until events conform to our expectancies or our expectancies conform to events. Disclosure—putting thoughts and feelings into language—advances this cognitive work.<sup>6</sup> Language is linear; we write and speak word by word, phrase by phrase, sentence by sentence. As a result, we take the emotional whole of a disturbing event and break it up into assimilable pieces. By gradually realigning experiences and expectations, disclosure addresses discrepancies and thereby resolves the emotions discrepancies produced. Thus, antipathy towards betrayers is reduced and forgiveness can advance; distress aroused by encountering a victim is reduced and blaming is averted; upset from past disappointments is reduced and an infant's upset is more moderately perceived.

The challenge, then, is finding the wherewithal to confront difficult emotions and the social opportunities to freely express and explore these emotions. This requires some courage on the part of speakers and some tolerance on the part of listeners. Allowing ourselves and others to speak freely may be an important first step toward healthier, more compassionate social connections.

## Summary

There are risks to disclosing and listening. Developing empathetic skills and developing internal resources, as supported by Roots of Empathy, encourages supportive listening and may reduce the risks associated with candid disclosure. This increased openness and internal exploration may make it safer for disclosers and listeners to “let go and explore”, and thus to see and be seen more accurately.

1 Rime, 1995

1 Worthington, 1998

2 Pennebaker & Chung, 2011

3 Harber & Wenberg, 2009

4 Harber, Podolski, & Williams, 2015

5 Harber, Cohen, & Lang, 2008

6 Harber & Pennebaker, 1992

### Disclosure, listening, and social perception: The social ecology of empathy



## Why we (don't) care: Evil, empathy, and moral development

### TINA MALTI, PhD

*Associate Professor of Developmental  
and Clinical Child Psychology  
University of Toronto*

Aggression can have negative effects on a child and society. The development of approaches that assess social-emotional development and inform interventional practice has the potential to be of benefit.

Aggression is defined as any behaviour directed towards another that is carried out with the intent to cause physical or psychological harm.<sup>1,2</sup> The long-term impacts of early aggression that persist into adulthood affect academic achievement, health and wellbeing.<sup>3</sup>



*Tina Malti*

Biological, psychosocial, individualistic and social-emotional factors are multifaceted and contribute to aggressive behaviour:

- Genetic factors, prefrontal structural and functional deficits, and low resting heart rate have been found to correlate with aggressive behaviour.<sup>4-6</sup>
- Destructive family dynamics, abuse and poverty are psychosocial factors that increase the propensity for aggressive behaviour.<sup>7,8</sup>
- Social cognitive biases such as perceiving others as hostile are individualistic factors that are associated with aggressive behaviour
- Aggressive behaviour is associated with the development, or lack of, social and moral emotions, with empathy assumed to be a core emotion underlying the emergence and developmental trajectories of aggression.<sup>9-11</sup>

Emotions involved in the aggression and victimization context are an important part of why children and adolescents adhere or fail to adhere to their own moral standards.<sup>12,13</sup> The moral emotional development process coincides with the development of cognitive abilities from early childhood to adolescence.

The development of empathy is linked to aggression. Evidence suggests that increased empathy plays a role in reducing aggression.<sup>13,14</sup> Longitudinal findings focused on the development of empathy demonstrate different trajectories based on individual differences in development.<sup>15</sup> The recognition of the moral qualities of another<sup>16</sup> or the good qualities of another with feelings of admiration<sup>17</sup> constitutes the meaning of respect and in particular, moral respect. Moral respect includes empathy, caring and fairness. Respect and empathy are negative predictors for aggression.<sup>18</sup> In other words, empathy and respect are early protective factors that can prevent or reduce aggression. Different trajectories of aggression are associated with variations in behavioural outcomes.

*“...increased empathy plays a role in reducing aggression.”*

The clover model is a theory of child and adolescent development based on longitudinal research. It recognizes that children will experience variations in each of the 4 areas over time.<sup>19,20,21</sup> (figure 1) The model provides the opportunity to choose different intervention strategies aimed at preventing and reducing aggression based on the profile of the individual's socioemotional developmental level and developmental needs.

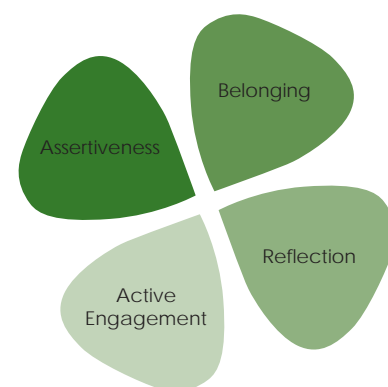
Interventions used within the clover model are driven by the following principles:

- Interventions are based on the child's strengths
- Interventions are multi-systemic
- Interventions are focused on increasing socioemotional development
- Interventions avoid the fragmentation of services

## Summary

Children are not born good or bad. Emotions, aggression, and morality develop, decline and change across the life span. Understanding is required of each child's socioemotional developmental level and their developmental needs. Socioemotional assessment tools can inform the selection of intervention strategies aimed at preventing and reducing aggression. Developmentally sensitive promotion and intervention practices are needed in order to change rates of mental health problems, systems, and societal norms.

Figure 1: Clover model



1 Anderson & Bushman, 2002

2 Malti & Krettenauer, 2013

3 Campbell et al., 2008

4 Brendgen et al., 2011

5 Boutwell et al., 2011

6 Raine, 2002

7 Duncan & Mumane, 2011

8 Zadeh et al., 2010

9 Eisenberg, 2000

10 Malti & Keller, 2010

11 Malti & Latzko, 2012

12 Malti, 2010

13 Tangney et al., 2007

14 Eisenberg et al., 2015

15 Malti et al., 2013

16 Li & Fischer, 2006

17 Drummond, 2006

18 Malti & Peplak, 2015

19 Malti & Noam, 2008

20 Malti & Noam, 2009

21 Noam et al., 2012

# Empathy and the reading of fiction

**KEITH OATLEY, PhD**

*Professor Emeritus*

*Applied Cognitive Psychology*

*University of Toronto*

Fiction is often misunderstood and dismissed as descriptive in nature, with a lack of empirical testing to demonstrate its value. Instead, a work of fiction should be understood as a simulation, a model of the social world, which offers the reader suggestions to imagine this model world and bring it alive.<sup>1</sup>

Studies have shown an association between reading fiction and increased empathy and understanding of others<sup>2</sup> as well as partial correlations between exposure to fiction and increased measures of social ability.<sup>3</sup> Exposure to fiction at a young age can influence a child's perspective taking ability. The more stories read to and the more story-based movies watched by preschool children, the better their scores on theory-of-mind measures. Conversely, there was no effect of simply watching regular television.<sup>4</sup>

Similarly, reading alone does not lend itself to understanding others. As compared to those who read an essay, people who read a fictional story increased their perspective taking ability<sup>5</sup> and improved on measures of empathy and theory-of-mind.<sup>6</sup> Stories designed to increase empathy, transport readers into the story and readers not only become increasingly empathetic towards the protagonist but are more likely to exhibit prosocial behaviour.<sup>7</sup>

Fiction improves empathy and social understanding via two aspects:<sup>8</sup>

- 1) The fictional content engages the reader in social simulations, which improve understanding of self via intentions and interactions.
- 2) The fictional process allows the reader to practice the inferences inherent in social interactions

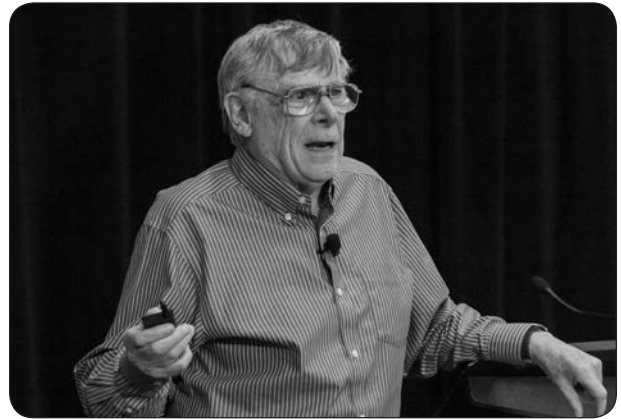
With the immersion of the reader when entering the imagined fictional world, the idea of metaphor is extended to the participant where the individual is both themselves and someone else. Thus the emotions experienced by the reader are not those of the literary character, but of the reader as they enter the characters' lives.<sup>9</sup>

Similar to fiction, consciousness is proposed as a simulation of our self in everyday life. The reviewing of past events and imagining alternatives in order to understand the perspective of others and evaluate options for the future is a function of consciousness.<sup>10</sup> Stories are crafted pieces of consciousness that can be externalized, be improved upon and then passed on to others. When we read, listen to, or watch a story, we take in a piece of consciousness. By running the simulation of a story in our minds we can make this piece of consciousness our own. In this way, by entering many other minds and by practicing the inferences of imagination, we can improve our own consciousness.

There are similarities in the empathetic process used when reading fiction and that used in real life social interaction. Identifying others' emotions, knowing what they feel in the ordinary world, involves an empathetic process of using direct and indirect cues to project one's own emotions onto them. This process involves a simulation within ourselves where we can infer and impute what emotion the other person is feeling, and simultaneously, we feel the corresponding emotion in our self, in a way that makes for social coordination.

A similar process is also utilised when reading fiction as we internalize a character's emotions into our own planning processors when entering a simulated social world. We identify the emotions of another, and having given up our own plans and concerns for those of the character, we experience our own emotions as actors in the circumstances of a character's plans and concerns.

Empathy involves having an emotion, which is similar to that of another person, is elicited by observing or imagining the other's emotion, and involves knowing that the other is the source of one's own emotion.<sup>11</sup> To take part in relationships



*Keith Oatley*

it is best to understand both our own and the other's emotions. In understanding what the other is feeling and thinking (theory-of-mind) we usually look into ourselves and project some aspect, such as an emotion, onto the other, making corrections based on what we know of them.

## Summary

Fiction, in the forms of novels, short stories, as well as in theatre, film and television drama, work to enable empathy. The identification that is required when introduced to fiction is similar to experiencing others' emotions in everyday life. This exposure increases the propensity of the individual to understand themselves and others.

- |                        |                                 |
|------------------------|---------------------------------|
| 1 Oatley, 1999         | 7 Johnson, 2012                 |
| 2 Mar et al., 2009     | 8 Mar & Oatley, 2015            |
| 3 Mar et al., 2006     | 9 Kaufman & Libby, 2012         |
| 4 Mar et al., 2010     | 10 Baumeister & Masicampo, 2010 |
| 5 Djikic et al., 2013  | 11 de Vignemont & Singer, 2006  |
| 6 Kidd & Castano, 2013 |                                 |

## Neuropsychiatric conditions that could effect empathy development in very young children

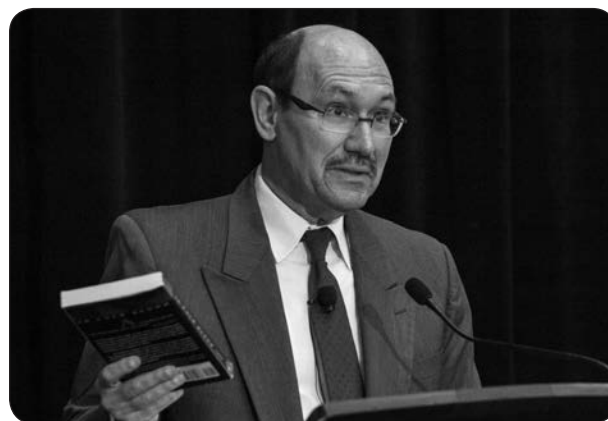
### NORMAND CARREY, MD

*Associate Professor*

*Department of Psychiatry*

*Dalhousie University*

Empathic development in children is the product of genetics and environmental interactions.<sup>1,2</sup> Neuropsychological conditions, such as conduct disorder (CD) and autism spectrum disorder (ASD), can affect the parent-child relationship during development and subsequently empathy formation. Pasalich, Dodds and Hawes have proposed the distinction between affective versus cognitive empathy deficits.



*Normand Carrey*

### Callous-unemotional traits

Callous-unemotional (CU) traits classify a subgroup of individuals diagnosed with CD. This subgroup is characterized by a lack of guilt or remorse as well as constricted emotions with a deficit in empathy, low affective arousal and poor recognition of other's emotions.<sup>3</sup> Individuals with these traits experience a severe and stable trajectory of antisocial behaviour.<sup>4</sup>

A longitudinal trajectory modelling approach permits the identification of an individual's developmental trajectory in relation to CD or CU traits over time.<sup>5</sup> The individual may fit into one of four trajectories, stable low, stable high, increasing or decreasing.<sup>6</sup>

The majority of children studied at ages 4 and 12 developed along a stable low trajectory. The remaining individuals developed along a decreasing, increasing or stable high trajectory. In regards to the stable high trajectory group, more negative predictors were identified at age 4, and at age 12. These individuals experienced increased negative outcomes in terms of more emotional, peer and family problems.

*“Individuals with callous-unemotional traits are postulated to have a deficit in ‘affective empathy’.”*



## Autism Spectrum Disorder (ASD)

Deficits in the “social brain” may indicate ASD. The visual cortex, amygdala, anterior cingulate and mirror neuron system are the brain areas involved with face perception, gaze focusing and shared attention conceptualization. This brain circuitry is involved in processing and integrating cognition and emotion when observing others in the context of social interactions. These processes are evident in early development as indexed by facial recognition in neonates and shared attention at 18 months. Children with ASD tend to have hypoactive areas in the “social brain,” suggesting a disconnect between perceptual processing of the face, gaze and social interpretation in this brain circuitry. Research suggests that ASD demonstrates a deficit in “cognitive empathy”. For instance, according to the theory-of-mind framework, the incorrect reading of others emotions is due to mind-blindness.<sup>7</sup>

## Interventions to support development

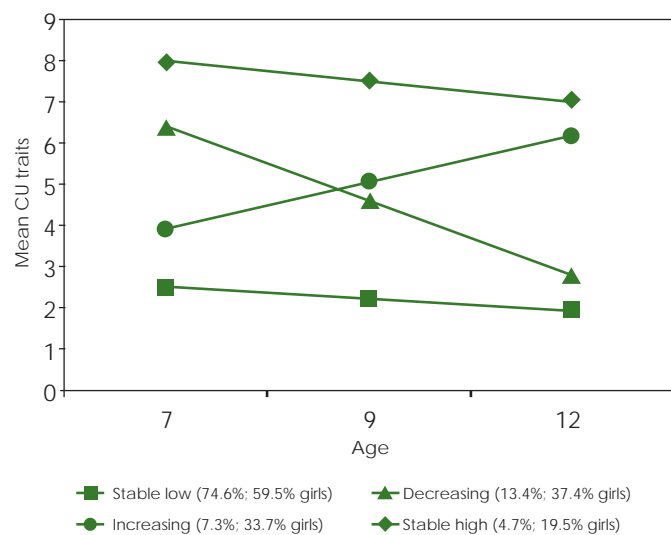
Supporting parents of children diagnosed with CU traits or ASD is critical as there may be a lack of reciprocity in the parent-child relationship in these cases. Typically, the bonds created by these children differ from the norm and the nature of these bonds need to be clarified for the caregivers.

Evidence suggests that improved responsiveness with immediate goal directed interventions focused on the parent-child relationship is beneficial given the low emotional arousal experienced by the child with CU traits and the positive impact of consistent parental warmth on moral development. Interventions include focussing on supporting parents and children develop better emotional regulation skills.<sup>8</sup>

Interventions focused on ASD are therapeutic and goal oriented. Early intensive interventions with greater duration are associated with gains in verbal intelligence and communication.

New conceptual directions include the need to fine-tune who needs intensive focussed intervention and how early intervention should be implemented. Focussing on early childhood settings as an arena to build early successful environments for the affected children and circling back to the parents is advantageous. Other areas, such as biological therapies (e.g., oxytocin) and viewing CU traits as a form of social skill deficit<sup>2</sup> are also being explored.

Developmental trajectory modelling of CU traits<sup>5</sup>



## Summary

There is a spectrum of empathic capacity with respect to various neuropsychiatric conditions. Depending on various factors such as strength of social skills, quality of attachment, presence of trauma and family issues, empathy development and expression can be uneven, inconsistent or situational. While dependant on both genetic and environmental factors, fostering social skill development in the early years can be beneficial.

1 Frick et al., 2014

2 Pasalich et al., 2014

3 Blair, 2005

4 Frick & White, 2008

5 Fontaine, 2011

6 Nagin & Tremblay, 1999, 2005

7 Frith & Happe, 2005

8 Somech & Elizur, 2012

## Research and Society: Bridging the Gap between Research and Policy

Panel discussion moderated by Mary Ito, host of CBC Radio's Fresh Air

### Discussants:

#### MARY BLACK

*Assistant Director of Public Health  
Health & Social Wellbeing Improvement  
with the Public Health Agency  
Northern Ireland*

#### JOHN FRANK

*Director, Scottish Collaboration for  
Public Health Research and Policy  
Professor and Chair, Public Health  
Research and Policy  
University of Edinburgh, UK*

#### MARY GORDON

*Founder/President  
Roots of Empathy*

#### ROSS A. THOMPSON

*Distinguished Professor of Psychology  
University of California, Davis*

A panel of 4 experts discussed the process of going from conception of an idea, research to public policy. They presented perspectives from 4 different countries and yet the messages were similar, it takes many years, on average 2 decades to see change in public policy and it takes monetary capital, which is often one of the biggest stumbling blocks.

Mary Gordon shared her experience of establishing her first social innovation in 1981, Ontario's Parenting and Family Literacy Centres (PFLC). Research conducted on graduates in five domains of development of the PFLC's graduates compared to the control group showed dramatic gains in four out of the five domains (except physical). As a result of the research and the lived experience of the educators and participants in this program, it became public policy in Ontario after 25 years. This is a fairly typical time frame to effect public policy. The PFLC's informed the development of Roots of Empathy.

Ross Thompson shared the example of early learning initiatives in the United States which takes place across all 50 states; the implementation of which he credits to people becoming sensitized to the research which showed the benefits of early learning.

Mary Black also found that the research on programs which are established, such as Roots of Empathy, have been helpful in pushing forward with new program development. In Northern Ireland they are still working to introduce an early years program. Mary also discussed the importance of public policy change needing to be approached using both a top down and bottom up strategy.

John Frank spoke to the importance of engaging in dialogue with politicians in order to bring research to life as public policy.

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*"Pick a very modest and clear objective in very clear language and keep sticking to it;  
and stay on it for the years it will take."*

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Ross Thompson then raised the concern that public policy is not always based on evidence and further it is difficult for some programs to conduct evaluations due to the cost involved. This creates a gap in knowledge that underscores the need for further evidence based programming.

John Frank echoed this concern about an evidence base for policies: “Policy mostly arises from a problem and the compromise of the politics to come up with a solution”

Further challenges to seeing research translated into policy is the time that is needed for long-term evidence to accumulate. Mary Gordon shared that for much of the work with the early years the benefits are not seen until many years later. This means that it requires looking forward and investing in not only our children but our grandchildren and that can be a challenge with governments who are wanting to see benefits within their term.

The panel members also spoke about the need to sometimes be creative with finding funding sources and then bridging to broader government funding. The panel agreed that a sustained investment in human capital provides benefit to society as a whole.



*An engaged panel discussion with Dr. John Frank, Dr. Ross A. Thompson, and Mary Gordon, moderated by Mary Ito*



Roots of Empathy

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Racines de l'empathie

tel: 416-944-3001 fax: 416-944-9295  
e-mail: [research@rootsofempathy.org](mailto:research@rootsofempathy.org)  
web: [www.rootsofempathy.org](http://www.rootsofempathy.org)  
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