
ON EXACTITUDE IN SCIENCE: A MAP OF THE EMPIRE THE SIZE OF THE EMPIRE

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ABSTRACT: In the service of children's best interests, we argue for a sharpening of the evidentiary standards used in family court decision making, from preponderance of (occasionally substandard) evidence to "beyond a reasonable doubt." Second, we call for a move in child protection cases from static diagnoses (e.g., attachment classifications) to assessments of the potential for enhanced parenting. Finally, informed by the implications of the replication crisis in the biomedical and psychological sciences, we applaud the move of the attachment field forward to large-scale, collective research agendas and goals.

RESUMEN: En atención a los mejores intereses de los niños, abogamos por agudizar las normas de evidencias que se utilizan en la toma de decisiones en los tribunales de familia, desde la preponderancia de la evidencia (ocasionalmente de estándares bajos) a "más allá de la duda razonable." Segundo, hacemos un llamado por un movimiento en los casos de protección al niño desde la diagnosis estática (v.g. clasificaciones de la afectividad) a evaluaciones del potencial para mejorar la crianza. Finalmente, con base en las implicaciones de la crisis de respuestas por parte de las ciencias biomédicas y psicológicas, aplaudimos el hecho de llevar adelante el campo de la afectividad hacia agendas y metas de investigación colectiva al nivel de una más amplia escala.

RÉSUMÉ: Servant les meilleurs intérêts des enfants, nous défendons un affûtage des standards probatoires utilisés dans les décisions des tribunaux de famille aux Etats-Unis, de la prépondérance de preuves (occasionnellement de qualité inférieure) à « au-delà de tout doute raisonnable ». Ensuite nous appelons à un changement dans les cas de protection de l'enfant de diagnostics statiques (c'est-à-dire les classifications d'attachement) à des évaluations du potentiel pour une amélioration du parentage. Enfin, au vu des implications de la crise de réplication dans les sciences biomédicales et psychologiques, nous applaudissons les efforts du domaine de l'attachement vers des agendas et des buts de recherches collectives et de grande échelle.

ZUSAMMENFASSUNG: Im Interesse des Kindeswohls plädieren wir für eine Schärfung der Beweisstandards, die bei der Entscheidungsfindung vor Familiengerichten verwendet werden – von der Dominanz von (gelegentlich minderwertigen) Beweismitteln hin zum Urteil "ohne begründeten Zweifel". Zweitens fordern wir in Kinderschutzfällen einen Übergang von statischen Diagnosen (z. B. Bindungsklassifikationen) hin zu Bewertungen des Potentials für eine bessere Erziehung. Abschließend begrüßen wir, ausgehend von den Auswirkungen der Replikationskrise in den biomedizinischen und psychologischen Wissenschaften, den Schritt des Bindungsfeldes in Richtung groß angelegter, kollektiver Forschungspläne und -ziele.

抄録: 子どもの最善の利益のために、我々は家庭裁判所の意思決定における証拠採用基準を(時に標準以下のもの)から、「合理的な疑いを越えたもの」に厳密にするよう主張する。次に、児童保護ケースでは、静的診断(例:アタッチメントの分類)から、子育ての促進により変わる潜在力評価へと動くことを求める。最後に、生物医学と心理学の示す再現性の危機を踏まえて、我々は、愛着理論の研究が今後大規模な集団研究の課題と目標に向かうことを歓迎する。

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摘要: 為了兒童的最大利益,我們主張加強家庭法院決策中使用的證據標準,從優先(偶爾不合標準)證據到“超出合理懷疑”。其次,我們呼籲將兒童保護案件從靜態診斷(例如,依附分類)轉移到評估增強育兒的潛力。最後,通過複製危機對生物醫學和心理科學的影響,我們贊同將依附研究領域推向大規模的集體研究議程和目標。

ملخص: من أجل الحفاظ على المصلحة الأفضل للأطفال ، ندعو في هذا المقال لتحسين المعايير الإثباتية المستخدمة في اتخاذ قرارات محكمة الأسرة ، من مستوى الأدلة دون مستوى الترجيح إلى مستوى أدلة تتجاوز الشك المعقول. ثانياً ، ندعو إلى التحرك في قضايا حماية الطفل من التشخيصات الجامدة (مثل تصنيفات التعلق) إلى تقييمات إمكانيات الرعاية الوالدية المعززة. وأخيراً ، وفي ضوء أزمة إعادة تطبيق الأبحاث المتماثلة في العلوم الطبية الحيوية والنفسية ، نشيد بانتقال مجال التعلق خطوات للأمام إلى نطاق أوسع من الخطط والأهداف البحثية الجماعية.

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ATTACHMENT STANDING TRIAL

In a recent case seen by the High Court for England and Wales, *GM v. Carmarthenshire County Council & Anor* [2018] EWFC 36 (June 6, 2018), it was argued that attachment research offers no “recognised body of expertise” and that expert discussion of attachment is neither admissible in nor relevant to the family court (see van IJzendoorn, Bakermans-Kranenburg, Duschinsky, & Skinner, in press). According to the High Court judge, attachment theory would either be pure speculation or simply common sense. In this skeptical climate, it is critical for researchers, social workers, and clinicians inspired by attachment theory to offer to the family courts insights and methods aiming at decisions beyond a reasonable doubt. In many countries “beyond a reasonable doubt” is indeed not the legal criterion in child protection cases, unlike criminal cases. Preponderance of evidence or clear and convincing evidence may be the conventional standards that courts aim to use to appraise and balance the best interests of children and parents. However, these lower standards of proof may well lead to the unintended consequence that less valid measures and assessments get used and less thorough cross-examination is conducted. Combining several inadequate diagnostic approaches may easily lead to a less valid outcome instead of better decisions.

HIGH STAKES, HIGH STANDARDS OF PROOF

We have previously shown that these risks have indeed occasionally become the reality, leading to erroneous child removals and a high probability of disastrous consequences for children and caregivers alike (Granqvist, 2016). All child removals entail potentially harmful separations from the child’s attachment figures and should therefore be avoided unless other courses of evidence-based interventions have been tried or can be judged with confidence to be futile (discussed later). Should the child be placed in foster care, chances are too high that repeated removals from attachment figures will ensue, often with highly negative consequences on the child’s development (Oosterman, Schuengel, Slot, Bullens, & Doreleijers, 2007). The scientific literature on developmental outcomes associated with repeated removals and long-term foster care placements provides an unusually grim reading: Maltreatment, drug abuse, suicidal behavior, psychiatric morbidity, unemployment, poor school performance, teenage parenting, and so on are highly overrepresented even after controlling for perti-

nent confounds (e.g., Berlin, Vinnerljung, & Hjern, 2011; Euser, Alink, Tharner, van IJzendoorn, & Bakermans-Kranenburg, 2014; Lawrence, Carlson, & Egeland, 2006; Vinnerljung, Hjern, & Lindblad, 2006). Therefore, it is in children’s best interests to grow in secure and healthy environments—both conditioned on continuity of caregiving arrangement. Children deserve no less than the highest standard of proof for their caregiving arrangement to be disrupted.

Unfortunately, attachment theory cannot provide family courts with assessment procedures that fulfill the basic psychometric requirements of high sensitivity and specificity to be applied to *individual* cases (van IJzendoorn, Bakermans, Steele, & Granqvist, this issue). Even with the average reliability of the available Dynamic-Maturational Model of Attachment and Adaptation (e.g., Crittenden, 2016; DMM) studies, the outcome for the individual child remains dangerously vulnerable to being wrongly diagnosed. Several attachment measures have been more or less successfully validated for research on larger samples, where the legal status of individual children and their parents are not at stake. When it comes to individual diagnosis, however, the bar should be put higher to avoid false positives (e.g., children’s attachment relationships with their parent are erroneously diagnosed as disturbed) and false negatives (e.g., children in dangerous child-rearing settings are not seen as at risk).

POTENTIAL FOR ENHANCED PARENTING

More radically, we suggest that dependence on static diagnoses such as the outcome of attachment assessments (i.e., attachment classifications) fails to lead to defensible court decisions and valid selection of treatment. Treatment should become part of the diagnosis, as it has always been for experienced clinicians (Byng-Hall, 1999). In particular, *assessment of the potential for enhanced parenting* is needed, for example, in custody cases in which decisions about out-of-home placement have to be considered (Cyr et al., 2012; Lindauer, Bakermans-Kranenburg, van IJzendoorn, & Schuengel, 2010).

Assessment of the potential for enhanced parenting basically consists of a rather brief and interaction-focused attachment intervention to support the parents in refraining from neglectful or harsh parenting and in becoming more sensitive to their child, with more consistent limit setting in case of conduct problems. Some examples of such evidence-based attachment interventions

that have been thoroughly evaluated in randomized controlled trials are the Attachment and Biobehavioral Catch-up (ABC; Dozier & Bernard, 2017; Dozier, Bernard, & Roben, 2017), Videofeedback to Promote Positive Parenting and Sensitive Discipline (Juffer, Bakermans-Kranenburg, & van IJzendoorn, 2017), and the related effective attachment-based videofeedback intervention evaluated by Moss et al. (2017) in families with a maltreated child. Often, the court's main question is whether parents can change their behavior with adequate support, which is exactly what is being assessed with the potential for enhanced parenting. It also can be argued that parents have the right to receive the best possible support to care for their child, even when circumstances are stressful and the parents lack material and social resources. Preliminary findings (Cyr et al., 2012; Cyr, Paquette, Dubois-Comtois, & Lopez, 2015) are promising, indicating that a "potential for enhanced parenting" diagnosis leads to less mistakes in decision-making and creates better developmental prospects for the child than does a diagnosis as-usual.

"A UNIQUE DMM-AAI CLASSIFICATION FOR EACH INDIVIDUAL PERSON"

Seven billion individuals would deserve just as many unique labels because each individual is a unique person, as Crittenden and Spieker (this issue) argue. This would be comparable to a map of the world exactly mirroring each feature of the globe. This map would, of course, become unyieldingly large and require a surface at least as large as the world itself. Jorge Luis Borges (1946; 1999) wrote in "On Exactitude in Science:"

In that Empire, the art of cartography reached such perfection that the map of one province alone took up the whole of a city In time . . . the Colleges of Cartographers set up a Map of the Empire which had the size of the Empire itself and coincided with it point by point Succeeding generations understood that this widespread map was useless and not without impiety they abandoned it to the inclemencies of the sun and of the winters. (p. 90)

Surely, the art and science of map making requires replicable simplification of distance, direction, shape, and area to create maps that fit on the dinner table and are useful in planning a trip. The same is true for a developmental psychopathology that explores and tests theories and measures of child development, using Occam's razor to reach the most parsimonious version that is adequately or pragmatically predictive. The ultimate goal is to support social workers, clinicians, and decision makers at family courts with parsimonious theory and instruments to make sense of a bewilderingly complex reality. If our science fails to adequately simplify, it also fails to be practically useful as the already existing training gap for practitioners would develop into a veritable gulf.

REPLICATION CRISIS: GOING FORWARD INSTEAD OF BACKWARD

Many attachment researchers have yet to realize how deeply threatening the replication crisis (e.g., Open Science Collaboration,

2015) is for some of the models, methods, and knowledge claims made in research based on attachment theory. In the past, studies on attachment in small samples without sufficient statistical power could win the day, but the replication crisis shows that this often implies a winner's curse (Molendijk et al., 2012). Not only in attachment research but also in the wider area of biobehavioral and medical research, replications and psychometric studies have been considered boring and could easily be ignored. Times are changing, however, and this is both necessary and good. Consequently, in a constructive response to the replication crisis, the Consortium for Attachment Transmission Studies (see Verhage et al., 2018) has been established, uniting most attachment researchers in a collective effort to move the field forward with better measures and more powerful designs, yielding the promise of more replicable findings. We end this rejoinder by encouraging researchers to move forward along this path rather than to step backward—for example, by pitting the DMM against the ABCD systems, using Ainsworth—or our personal projection on her legacy—as referee.

IN SUMMARY

DMM and other attachment measures used in court disputes produce the false semblance of scientific credibility. Attachment theory can do a better job providing evidence-based concepts and insights into basic requirements for a "good-enough" child and family life, and thoroughly tested means to support families creating those requirements. We hope that attachment theory may inspire close cooperation between family court judges, family lawyers, clinicians, and researchers to search for optimal legal practice in creating "good-enough" parenting arrangements for the child (van IJzendoorn et al., in press). The bell tolls for a discussion of the scientific, ethical, legal, and clinical perspectives on family court decision making beyond the use of DMM assessments.

REFERENCES

- Berlin, M., Vinnerljung, B., & Hjern, A. (2011). School performance in primary school and psychosocial problems in young adulthood among care leavers from long term foster care. *Children and Youth Services Review, 33*, 2489–2497.
- Borges, J.L. (1999). On exactitude in science. In J.L. Borges (Ed.) and A. Hurley (Trans.), *Collected fictions*. London: Penguin Books.
- Byng-Hall, J. (1999). Family and couple therapy: Toward greater security. In J. Cassidy & P.R. Shaver (Eds.), *Handbook of attachment: Theory, research, and clinical applications* (pp. 625–648). New York: Guilford Press.
- Crittenden, P.M. (2016). *Raising parents: Attachment, representation, and treatment* (2nd edition). London, UK: Routledge.
- Crittenden & Spieker (2018). DMM vs. ABC+D assessments of attachment in child protection and treatment: Reply to van IJzendoorn, Bakermans, Steele, & Granqvist (2018). *Infant Mental Health Journal, 39*(6), 647–651.

- Cyr, C., Dubois-Comtois, M.G., Poulin, C., Pascuzzo, K., Losier, V., Dumais, M. et al. (2012). Attachment theory in the assessment and promotion of parental competency in child protection cases. In A. Muela (Ed.), *Child abuse and neglect—A multidimensional approach* (pp 63–86). London: InTech Open. <https://doi.org/10.5772/48771>
- Cyr, C., Paquette, D., Dubois-Comtois, K., & Lopez, L. (2015, March). An attachment-based intervention protocol for the assessment of parenting capacities in child welfare cases (Abstract 3–052). Presented at the Symposium at the Society for Research in Child Development, Philadelphia.
- Dozier, M., & Bernard, K. (2017). Attachment and Biobehavioral Catch-up: Addressing the needs of infants and toddlers exposed to inadequate or problematic caregiving. *Current Opinion in Psychology*, 15, 111–117.
- Dozier, M., Bernard, K., & Roben, C.K.P. (2017). Attachment and Biobehavioral Catch-up. In H. Steele & Steele, M. (Eds.), *The handbook of attachment-based interventions* (pp. 27–49). New York: Guilford Press.
- Euser, S., Alink, L.R., Tharner, A., van IJzendoorn, M.H., & Bakermans-Kranenburg, M.J. (2014). Out of home placement to promote safety? The prevalence of physical abuse in residential and foster care. *Children and Youth Services Review*, 37, 64–70.
- GM v. Carmarthenshire County Council & Anor [2018]EWFC 36 (June 6, 2018). High Court for England and Wales.
- Granqvist, P. (2016). Observations of disorganized behaviour yield no magic wand: Response to Shemmings. *Attachment & Human Development*, 18, 529–533.
- Juffer, F., Bakermans-Kranenburg, M.J., & van IJzendoorn, M.H. (2017). Pairing attachment theory and social learning theory in video-feedback intervention to promote positive parenting. *Current Opinion in Psychology* 15, 189–194.
- Lawrence, C.R., Carlson, E.A., & Egeland, B. (2006). The impact of foster care on development. *Development and Psychopathology*, 18, 57–76.
- Lindauer, R., Bakermans-Kranenburg, M.J., van IJzendoorn, M.H., & Schuengel, C. (2010). Thuiswonen of uithuisplaatsen: Betrouwbaarheid van de besluitvorming en innovatie van beslisdiagnostiek op basis van de capaciteit tot verbetering van ouderlijke pedagogische vaardigheden middels een evidence-based interventie [Out-of-home placement: Reliability of the decision process and innovation of diagnostic procedures on the basis of assessment of capacity for change in parenting through evidence-based intervention]. Amsterdam: Bascule.
- Molendijk, M.L., Bus, B.A.A., Spinhoven, P., Kaimatzoglou, A., Oude Voshaar, R.C., Penninx, B. W. J. H. et al. (2012). A systematic review and meta-analysis on the association between BDNF val66met and hippocampal volume—A genuine effect or a winners curse? *American Journal of Medical Genetics Part B: Neuropsychiatric Genetics*, 159b, 731–740. <https://doi.org/10.1002/ajmg.b.32078>.
- Moss, E., Tarabulsky, G.M., Dubois-Comtois, K., Cyr, C., Bernier, A., & St-Laurent, D. (2017). Development and validation of the Attachment video-feedback intervention program. In H. Steele & M. Steele (Eds.), *The handbook of attachment-based interventions*. New York: Guilford Press.
- Oosterman, M., Schuengel, C., Slot, W., Bullens, R.A.R., & Doreleijers, T.A.H. (2007). Disruptions in foster care: A review and meta-analysis. *Children and Youth Services Review*, 29, 53–76. <https://doi.org/10.1016/j.childyouth.2006.07.003>
- Open Science Collaboration. (2015). Estimating the reproducibility of psychological science. *Science*, 349(6251), aac4716.
- van IJzendoorn, M.H., Bakermans, J.J.W., Steele, M., & Granqvist, P. (2018). Diagnostic use of Crittenden's attachment measures in Family Court is not beyond a reasonable doubt. *Infant Mental Health Journal*, 39(6), 642–646.
- van IJzendoorn, M.H., Bakermans-Kranenburg, M.J., Duschinsky, R., & Skinner, G.C.M. (in press). Legislation in search of 'good-enough' care arrangements for the child: A quest for continuity of care. In J.G. Dwyer (Ed.), *The Oxford handbook of children and the law*. Oxford: Oxford University Press.
- Verhage, M.L., Fearon, R.M.P., Schuengel, C., van IJzendoorn, M.H., Bakermans-Kranenburg, M.J., Madigan, S., . . . Collaboration on Attachment Transmission Synthesis. (2018). Constraints on the intergenerational transmission of attachment via individual participant data meta-analysis. *Child Development*. Advance online publication. <https://doi.org/10.1111/cdev.13085>
- Vinnerljung, B., Hjern, A., & Lindblad, F. (2006). Suicide attempts and severe psychiatric morbidity among former child welfare clients—A national cohort study. *Journal of Child Psychology and Psychiatry*, 47, 723–733.