Neurological disorder? No, Mannerism

We read with great interest the Correspondence[1] by Alla A Vein and Alexander Mouret about the Renaissance painter, Agnolo Bronzino (1503–72), depicting a claw hand in the portrait of a 16th century notable. The history of art shows that similar pictorial representations are associated with Mannerism, a new artistic style that emerged in the later years of the Italian High Renaissance (around 1520). In Italy, Mannerism lasted until about the end of the 16th century and Agnolo Bronzino was one of its most eminent representants. Northern Mannerism in Europe, especially in Flanders, continued into the early 17th century. Mannerism broke all previous codes of anatomical accuracy, proportion, balance, and ideal beauty—all canons that had characterised the High Renaissance. Hence, human figures were often depicted in asymmetrical positions with elongated proportions (eg, in Madonna with Long Neck, 1534–40, by Parmigianino) or in unnatural body positions (eg, in Noli me tangere, 1561, by Agnolo Bronzino). A brief examination of the hands painted in more than a dozen of Bronzino's paintings (figure) shows that the painter always depicted the hands in the same way, with an excessive spacing of the fingers and the folding of two or three fingers.[2,3] So, is this an epidemic of neurological disorders? No, only Mannerism. These representations reveal the artist's endeavor to show the grace of the subjects he depicted, highlighting that they belonged to the aristocracy. It is, therefore, important that iconodiagnosis is made by putting the paintings or other works of art in their proper artistic context, thus, reducing the risk of erroneous diagnoses and over-intepretation of pathological conditions.[4]

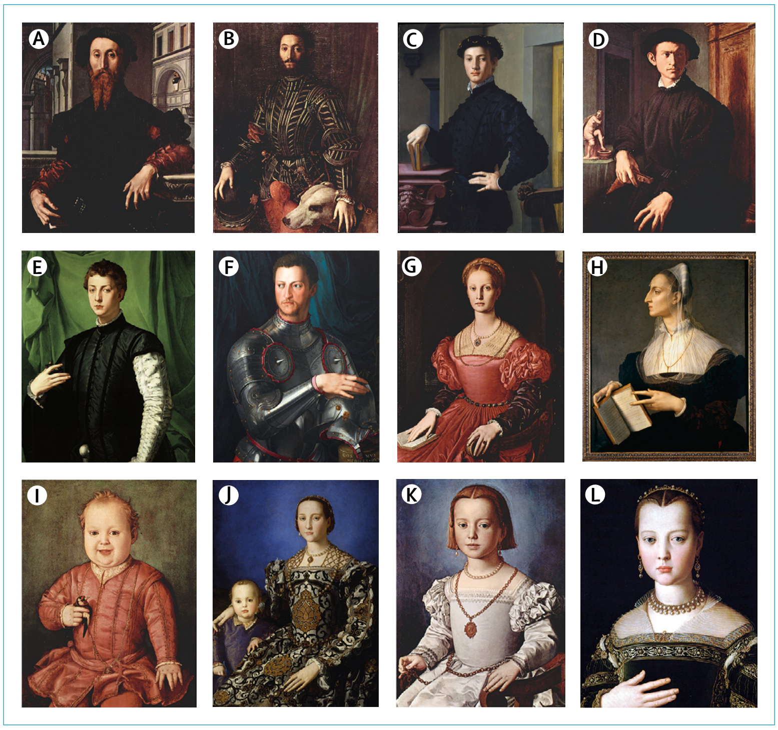

***Figure:* Bronzino's hands and Mannerism**

A series of portraits by Agnolo Brozino show that the artist painted the hands of the Florentine notables in the same way. Bartolomeo Panciatichi, circa 1540, Galleria Uffizi, Florence, Italy (A); Guidobaldo II della Rovere, 1530–32, Palazzo Pitti, Florence, Italy (B); Young Man, circa 1540 (C); Young Man with a Lute, 1532–34 (D); Ludovico Capponi, circa 1550, Frick Collection, New York, USA (E); Cosimo I de Medici in armour, 1543, Galleria Uffizi, Florence, Italy (F); Lucrezia Panciatichi, circa 1540, Galleria Uffizi, Florence, Italy (G); Laura Battiferri, 1555–60, Palazzo Vecchio, Florence, Italy (H); Giovanni de Medici as a child, circa 1545, Galleria Uffizi, Florence, Italy (I); Eleonora di Toledo with her son Giovanni, circa 1545, Galleria Uffizi, Florence, Italy (J); Bia de Medici, circa 1542, Galleria Uffizi, Florence, Italy (K); and Maria de Medici, 1553, Galleria Uffizi, Florence, Italy (L). Reproduced with permission from the Metropolitan Museum of Art, New York, NY, USA, and the Galleria Uffizi, Florence, Italy.

We declare no competing interests.

Philippe Charlier, Donatella Lippi,
**Antonio Perciaccante,*
Otto Appenzeller, Raffaella Bianucci
antonioperciaccante@libero.it

Département de la Recherche et de l'Enseignement, Musée Quai Brainly-Jacques Chirach, Paris, France(PC); UVSQ (laboratoire DANTE-EA4498), Montigny-le-Bretonneux, France (PC); Department of Experimental and Clinical Medicine, University of Florence, Florence, Italy (DL); Department of Medicine, San Giovanni di Dio Hospital, Gorizia 34170, Italy (AP); New Mexico Health Enhancement and Marathon Clinics Research Foundation, Albuquerque, NM, USA (OA); New Mexico Museum of Natural History and Science, Albuquerque NM, USA (OA); Legal Medicine Section, Department of Public Health and Paediatric Sciences, University of Turin, Italy (RB); Warwick Medical School, Microbiology and Infection Division, University of Warwick, Coventry, UK (RB); and UMR 7268, Laboratoire d'Anthropologie bio-culturelle, Droit, Etique & Santé (Adés), Faculté de Médecine de Marseille, Marseille, France (RB)

1 Vein AA, Mouret A. Claw hand in a Renaissance portrait. *Lancet Neurology* 2018; **17:** 742.

2 Falciani C, Natali A. Bronzino Pittore e Poeta alla Corte dei Medici, Firenze: Madragora, 2010.

3 Weisz GM, Albury WR, Lippi D, Matucci-Cerinic M. Right or left hand: is this the real problem of Pontormo's Halberdier? *Rheumatol Int* 2013; **33:** 2177–217.

4 Karenberg A. Retrospective diagnosis: use and abuse in medical historiography. *Prague Med Rep* 2009; **110:** 140–45.

Openness, inclusion, and respect in dementia research

In biomedical contexts, capacity is defined as the ability to understand information, appreciate consequences, weigh alternatives, and communicate a decision.[1] Research involving people with dementia and diminishing decisional capacity raises unique consent challenges. Regulatory frameworks aim to protect people with limited decisional capacity from harm and

For more on **InTBIR** see https://intbir.nih.gov/

exploitation. Safeguards include restrictions on participation in research according to risk–benefit considerations and the requirement for informed consent from a legal representative. Such safeguards are essential but can sometimes exclude people with dementia from research participation, which limits their access to experimental therapies. Moreover, consent and capacity laws often restrict or do not specifically address health research, which can limit participation in non-interventional studies (eg, natural history and genome-wide association studies) that contribute to scientific and medical advancement with low risks to participants. Legal frameworks and research governance need to strike a more equitable balance between protection and inclusion.

To address this need, we formed the Ageing and Dementia Task Team of the Global Alliance for Genomics and Health to provide consent recommendations[2] for research and data sharing involving people with dementia, informed by an international law, policy, and literature review. The recommendations build on the Global Alliance for Genomics and Health Framework, which aims to accelerate progress in genomic research and human health through harmonised approaches to responsible data sharing.[3] The recommendations address complex and contested matters related to decisional capacity and encourage researchers to presume the capacity of adults until proven otherwise, establish safeguards that are proportionate to the risks that research poses, and respect the person's will, preferences, and values, including those expressed in advance of, or during, a gradual loss of capacity. Both researchers and legal representatives should strive to support people with dementia to make their own decisions, or at least to participate in decision making in appropriate ways according to their capacity.[4] The recommendations also identify areas for further ethical investigation, including the need to tailor capacity assessment tools to data-intensive research contexts, and the need for advanced planning and early communication about research with appropriate sensitivity to the challenges of living with dementia. Although our recommendations focus on people with dementia, they could be adapted to research involving other patient groups with conditions affecting decisional capacity.

We declare no competing interests. We gratefully acknowledge the financial support of Genome Quebec, Genome Canada, the Government of Canada, the Ministère de l'Économie, and Innovation et Exportation du Québec (Can-SHARE grant 141210).

*Adrian Thorogood,
Anna Mäki-Petäjä-Leinonen,
Gratien Dalpé, Chris Gastmans,
Serge Gauthier*
adrian.thorogood@mcgill.ca

Centre of Genomics and Policy, McGill University, Montreal, QC H3A 0G1, Canada (AT, GD); Faculty of Social Sciences and Business Studies, Law School, University of Eastern Finland, Joensuu, Finland (AM-P-L); Interfaculty Centre for Biomedical Ethics and Law, KU Leuven, Leuven, Belgium (CG); and Douglas Mental Health University Institute, Montréal, QC, Canada (SG)

1 Palmer BW, Harmell AL, Pinto LL, et al. Determinants of capacity to consent to research on Alzheimer's disease. *Clin Gerontol* 2017; **40:** 24–34.

2 Thorogood A, Mäki-Petäjä-Leinonen A, Brodaty H, et al. Consent recommendations for research and international data sharing involving persons with dementia. *Alzheimers Dement* 2018; **14:** 1334–43.

3 Global Alliance for Genomics and Health. Framework for responsible sharing of genomic and health-related data. 2014. https://www.ga4gh.org/genomic-data-toolkit/regulatory-ethics-toolkit/framework-for-responsible-sharing-of-genomic-and-health-related-data/ (accessed Nov, 6, 2018).

4 UN. Convention on the rights of persons with disabilities. Dec 6, 2006. http://www.un.org/disabilities/documents/convention/convention_accessible_pdf.pdf (accessed Dec 10, 2018).

Traumatic brain injury: global collaboration for a global challenge

Although low-income and middle-income countries (LMICs) are facing a far greater burden of traumatic brain injury (TBI) than high-income countries, funding and multicentre research efforts have had a disproportionately greater focus on high-income countries.[1] Initiatives such as InTBIR[2] are advancing TBI care in high-income countries, but research participation of LMICs has been very limited. Multicentre trials in TBI, with very few exceptions, have predominantly focused on populations in high-income countries.

The setting of a study also determines whether its findings are generalisable and influence the day-to-day practice of clinicians working in different settings. As an example, one of the main interventions in the treatment of TBI is a decompressive craniectomy, by which large piece of skull is removed to accommodate severe brain swelling. The two randomised trials that attempted to define the role of decompressive craniectomy in TBI exclusively enrolled patients who were managed in intensive care units with monitoring of intracranial pressure.[3] Nevertheless, the majority of patients with TBI in LMICs do not have access to intensive care units and intracranial pressure monitoring is also not routinely available.

We cannot continue to ignore this bleak reality. Despite the often extremely limited resources (in terms of infrastructure, equipment, and health-care professionals), patients in LMICs require and receive care for TBI. It might not be the care that clinicians in high-income countries would recognise as gold standard, but it is often the best that can be offered in a resource-limited setting. In such settings, the unmet needs for essential neurosurgical care for TBI is estimated at more than 2 million cases per year.[4] We believe that clinicians and researchers in high-income countries have a moral obligation to work together with clinicians and researchers from LMICs to facilitate the development of high-quality TBI research in LMICs. Policy makers, funding agencies, and university leaders have a responsibility