

After listening to the IACC Workgroup meeting on July 8, I would like to add the following comments to those I submitted earlier for the IACC meeting on July 15:

**A final common pathway in the brain?** I submitted comments for the May 12 meeting that included evidence that injury in the midbrain auditory pathway causes loss of ability to comprehend spoken language. Evidence has been available for decades that the same midbrain nuclei (the inferior colliculi) are selectively damaged by asphyxia at birth, which would certainly impede a child learning to speak. Can this become a focus of investigation?

**Preventable causes?** Current obstetric protocols include clamping the umbilical cord immediately at birth, whether or not breathing has been established. Respiratory depression at birth occurs in 5 to 6 per 1000 infants. Prevalence of autism is at the same rate (1 in 150). Because “respiratory depression” at birth can lead to impairment of the auditory system and language development, obstetric practice is as important as investigating vaccines as a cause of autism.

**Early intervention?** Normal children learn to speak “by ear.” The sound boundaries between syllables and words are easily detected during early childhood. This capability is clearly lost by the end of the first decade of life, when it also becomes difficult to learn a new language without accent. Detection of sound boundaries allows recognition of morphemic units (basic units of meaning), which then leads to baby talk (telegraphic speech). Kanner described the irrelevant and metaphorical speech of children with autism – which represents use of whole phrase fragments often applied badly out of context. Use of phrase fragments rather than morphemic units results from failure to hear sound boundaries. Perhaps (with the help of experts in acoustics) children could be helped to hear the syllable and word boundaries that normal children use in detection and recognition of morphemic units.

**Lifelong services?** Long-term care insurance should be required for every child born. Actuarial scientists would thereby be recruited into research on preventable causes. Services funded only by taxes cannot be expected to provide for the large numbers of children with autism reaching adulthood who will not be able to be meaningfully employed and self sufficient.

More on the above four summaries can be found online, with bibliographic references , at <http://www.conradsimon.org/>

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