

## EDITORIAL

## The Growth of Human Brain Mapping

This issue opens the fifth volume of *Human Brain Mapping*. In the editorial opening the first volume of *Human Brain Mapping* [Fox, 1993], we observed that interest in human brain mapping had reached “unprecedented levels” and that the field had never been “more vital.” As is now apparent, this was merely the tip of the iceberg. Human functional neuroimaging has moved squarely into the scientific mainstream. With each passing month, the number of research publications and the number of laboratories contributing to this field seems to grow. Similarly, coverage of human brain mapping by the lay and scientific news media is becoming more and more common. There is no doubt that the field is booming. One might well ask, “How much?”

Human brain mapping is fortunate in having reporting standards that, although not universally applied, are in wide use. Specifically, the locations of brain activations are most commonly reported in standardized coordinates [Fox, 1995] referable to the atlases of Talairach et al. [1967; 1988]. As Talairach’s atlases establish a reporting standard, publications referencing them are an index of the volume of publications in human brain mapping. This index has two readily identified biases, which work in opposite directions. As some brain-mapping studies fail to report standardized coordinates, this index will be an underestimate. To the extent that papers citing the Talairach atlases are not reporting new brain-mapping results (e.g., are reviews, letters, editorials, or report new methods), this index will be an over-estimate. To estimate the magnitude of the latter bias, a large sample (127) of papers published in 1995 and referencing the current Talairach atlas [1988] was retrieved and examined. Greater than 70% of these papers were new reports of functional mapping of the human brain. Thus, the index seems reasonable. Based on this index, the available literature: 1) exceeds one thousand publications (over all years), 2) increased by nearly 350 publications in 1996, and 3) is doubling every 18–24 months (Figure 1). Although this volume may seem startling, it is confirmed by a second citational index: abstracts on human brain mapping presented at the annual meeting of the Society for Neuroscience (Figure 1). While neither index is an absolute measure of the size of our field, it is incontestable that the field of human brain mapping is growing at a rate exceeding even the most optimistic expectations (ours).

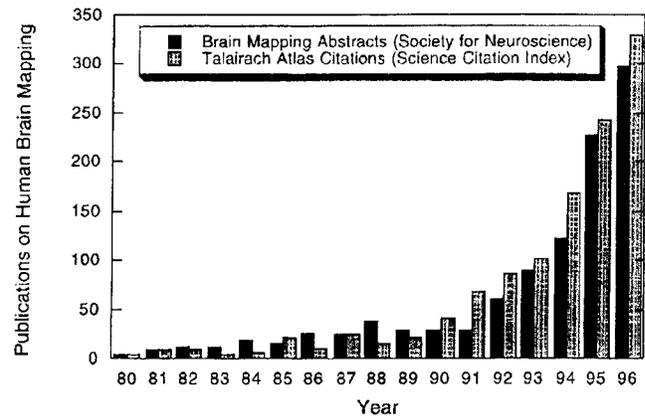


Figure 1.

Two indices of the growth of human brain mapping are illustrated. Grey bars chart the number of publications citing the Talairach atlases [1967, 1988]. (Total 1996 value projected from bi-monthly values for January through October.) Black bars chart the number of abstracts on functional mapping of the human brain reported at the annual meeting of the Society for Neuroscience.

The growth of human brain mapping cannot be attributed solely to increased productivity at well-established laboratories. New functional-imaging centers are being created and scientists from a host of neighboring disciplines are moving into the field. As a result, discipline-specific publications (e.g., for neurology, psychiatry, psychology, neuroscience, radiology, physics and the like) are ill-suited to serve as a forum for this new convergence of disciplines [Fox, 1993]. This was the motivation for launching this journal, *Human Brain Mapping*.

Created to serve this field, *Human Brain Mapping* has shared its remarkable growth. In a brief three years, *Human Brain Mapping* won a listing in *Current Contents*, an accomplishment jointly due to the high impact of our field and to the high volume of excellent submissions. Keeping pace with this growth has necessitated changes in journal logistics and production schedules. To accelerate peer review, reviewer-selection was made entirely electronic. To more closely coordinate peer-review and production, the Editorial Office was moved to the home offices of John Wiley and Sons, in New York. This year, to accommodate the increased volume of submissions without delaying

publication, *Human Brain Mapping* expands to six issues per volume. Rest assured that as our field grows, *Human Brain Mapping* will keep pace. If the past is any indication, the growth of human brain mapping will exceed all expectations.

Peter T. Fox  
Research Imaging Center  
University of Texas Health Science Center  
San Antonio, Texas

## REFERENCES

- Fox PT (1993): Human brain mapping: a convergence of disciplines. *Human Brain Mapping* 1:1–2.
- Fox PT (1995): Spatial normalization: origins, objectives, applications and alternatives. *Human Brain Mapping* 3:161–164.
- Talairach J, Szikla G, et al. (1967): Atlas D'anatomie stereotaxique du telencephale. *Etudes Anatomico-Radiologiques*. Paris: Masson & Cie.
- Talairach J, Tournoux P, et al. (1988): Coplanar stereotaxic atlas of the human brain. NY: Thieme Medical.