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Geffen G, Bradshaw J L & Wallace G. Interhemispheric effects on reaction time to verbal and nonverbal visual stimuli. *J. Exp. Psychol.* 87:415-22, 1971.
[Psychology Department, Monash University, Clayton, Victoria, Australia]

Faster matching times were found for faces presented in the left than the right visual field. Conversely, digits were discriminated faster in the right than the left visual field. Both interhemispheric transmission time and quantitative functional asymmetries between the hemispheres were invoked to explain these reaction time differences. [The *Social Sciences Citation Index*® (*SSCI*®) and the *Science Citation Index* ® (*SCI*®) indicate that this paper has been cited in over 170 publications since 1971.]

Gina Geffen
Psychology Discipline
and
Centre for Neuroscience
Flinders University of South Australia
Adelaide 5042
Australia

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While working as a research assistant for Anne Treisman in the Psycholinguistic Research Unit, Oxford University, on selective attention to competing speech messages, I was struck by Anne's instruction to request subjects to repeat or shadow the message in their right rather than their left ears, and to look toward the right when they did so. I asked, "Why the right ear message?" She replied, "It's easier to attend to the right input." We subsequently investigated this, and indeed found that the unattended right speech input intruded more.[1] Thus began my interest in hemispheric specialization.

From 1967, I worked at Monash University. John Bradshaw was studying interhemispheric transmission time using point light sources in each visual field and measuring manual response times. He agreed to supervise my PhD. The first five experiments in my thesis are those published in the *Citation Classic*. Graham Wallace was Bradshaw's research assistant and helped me collect data when two experimenters per session were needed. He also helped by "borrowing" an Identikit set from the local constabulary to enable us to make a set of seven gruesome faces that were the stimuli in Experiments I and II. Manual matching times were faster to faces presented in the left visual field (right hemisphere) rather than the right visual field (left hemisphere). The next experiments showed that subjects identified digits faster in the right than the left visual field. We had thus confirmed in intact human subjects what neurologists had reported on the effects of unilateral cortical lesions: left hemisphere lesions were often associated with language difficulties, while right posterior lesions resulted in prosopagnosia—an inability to recognise faces.

The article has probably been frequently cited for four reasons. First, a clear functional superiority for the elusive right hemisphere was reported in intact subjects for the first time. Second, we asked whether the cerebral hemispheres differ qualitatively or quantitatively. Did interhemispheric transmission time between exclusively specialized processors account for the reaction time differences or were the left and right hemispheres less efficient at analysing faces and digits respectively? Many researchers have subsequently addressed whether either or both explanations are required.[2] Third, the split-brain studies of Sperry and his associates[3] had aroused considerable interest in hemispheric specialization of function. Finally, the *Journal of Experimental Psychology* is very widely read and respected.

More recently, my interest in hemispheric specialization has led to a validation of dichotic monitoring to determine language laterality in neurosurgical cases noninvasively.[4] We've also studied functions of the corpus callosum in patients with lesions of this structure[5,6] and published a review of studies invoking the hemispheric model to explain ear advantages in processing speech.[7]

1. **Treisman A M & Geffen G.** Selective attention and cerebral dominance in perceiving and responding to speech messages. *Quart. J. Exp. Psych.* 20:139-50, 1968.
2. **Beaumont J G.** ed. *Divided visual field studies of cerebral organisation.* London: Academic Press, 1982. 305 p.
3. **Gazzaniga M S & Sperry R W.** Language after section of the cerebral commissures. *Brain* 90:131-48, 1967. (Cited 190 times.)
4. **Geffen G & Caudrey D.** Reliability and validity of the dichotic monitoring test for language laterality. *Neuropsychologia* 19:413-23, 1981.
5. **Geffen G, Walsh A, Simpson D A & Jeeves M A.** Comparison of the effects of transcortical and transcallosal removal of intraventricular tumours. *Brain* 103:773-88, 1980.
6. **Geffen G, Nilsson J, Quinn K & Teng E L.** The effect of lesions of the corpus callosum on finger localization. *Neuropsychologia.* In press.
7. **Geffen G & Quinn K.** Hemispheric specialization and ear advantages in processing speech. *Psychol. Bull.* 96:273-91, 1984.

