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# Left and Right: Investigating a Scientific Claim

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LEFT AND RIGHT  
Investigating a Scientific Claim<sup>1</sup>

by

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It has long been known in the field of neurophysiology that specific activities are controlled in specific parts of the brain. It has been furthermore widely believed that the brain's left hemisphere is the main, if not exclusive, language center, controlling such activities as speech and writing with the right hand, while the right hemisphere controls such activities as smell, spatial construction, and nonverbal ideation (For a brief popular discussion of the latest ideas on this subject, see *The New York Times*, September 10, 1991, section B., p. 5-6). Over the past twenty years, a growing number of practitioners in various natural sciences have alleged that man's preference for righthandedness is reflected in language.

Among the more extreme claims for this putative linguistic link is one made by Carl Sagan, a Cornell University astronomer. He avers that

almost without exception *all human languages* have built into them a polarity, a veer to the right. "Right" is associated with legality, correct behavior, high moral principles, firmness, and masculinity; "left," with weakness, cowardice, dif-

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1. This is a revised version of a paper presented at the Second International Symposium of Mongolian Studies, Kōkeqota, Inner Mongolia, August 1991.

fuseness of purpose, evil, and femininity (Sagan, 1977: 174.

*Italics added).*

He cites several examples of a connection between "right" and such English words as "rectitude," "righteous," "dexterity," and "rights." Likewise, the English word "left" is linked to such words as "sinister," "gauche," and "left-handed compliment." He also cites a few words in other European languages to make his point.

Because we are dealing here with an important aspect of the history of human intelligence and because Sagan, through his popularization efforts in the American mass media, is quite influential, we ought to investigate this claim. An adequate test case is East and Central Asia whose people account for about one-fourth of our species. To give the claim the greatest possible support, I have chosen only the most comprehensive dictionaries, the ones likely to contain the largest number of connotations.

Let us begin with Mongolian where the words for "right" are *içi* (*iç*) and *baragun* (*baruun*). I consulted the following dictionaries: Tsevel 1966; *Monggol* 1976; *Mongol* 1978; Mostaert 1941; Ramstedt 1935; Amarzhargal 1988-89; *Menggu* 1990. In each of the Mongolian word pairs, I cite the word with "left" or "right" as its primary meaning first. The first word has a connotation of "convenient" and the second has, of course, the primary meaning of "west." No hint of legality and other "good" attributes. The Mongolian words for "left" are *sologai* (*solgoj*) and *jegün* (*züün*). The first word has the connotation "east," and Mostaert also lists "gauche, gaucher; faute, tort" (Mostaert 1941: 582). The second word's primary meaning is "east." There is a third word, *burugu* (*buruu*) with its first two meanings being "wrong" and "contrary" but, in third place, can also sometimes mean "left."

The situation in Uighur is only slightly more promising. The word for "right," *oñ*, does have

the connotations of "reasonable," "sensible," "suitable," "fitting," and "appropriate." One finds such terms as *oñ pärq* "favorable balance, surplus;" *oñ tanasip* "direct proportion;" and *oñ közi qarimaq* "to think highly of." The claim is also supported by Uighur expressions like *bu yil hämmä işim oñdin keliwatidu* "this year everything has gone smoothly for me," and *bügün sän oñ täripinidin qopqan oxsimamsän* "you are in luck today!" However, the Uighur word for "left," *sol*, clearly related to its Mongolian counterpart just cited, does not have any connotations, if one is permitted to ignore the figurative use of the word in politics (Schwarz, n.p.). If one is inclined to search in pre-thirteenth century Turkish, Clauson gives little encouragement. The word *sol* did not seem to have any "bad" connotations, whereas regarding *oñ*, Clauson states that it meant "the opposite both of 'left' and of 'wrong'" (Clauson 1972: 166-7, 824).

The Japanese word *migi* "right" has no connotations to support or refute the claim (*Kenkyusha* 1974: 1091-2); while the word *hidari*, "left," has two relevant connotations. One seems to support the claim: *hidari-mae* has a negative connotation used in clothing; when the kimono's right side is tucked under the left side, it is called "the wrong way" or *hidari-mae*. However, the same word also means "to live in great comfort, to be on Easy Street," which carries a positive connotation (*Kenkyusha* 1974: 430-1).

Chinese, the region's major language, presents, as one would expect, a somewhat more complicated situation. *Cihai* and Mathews, the major Chinese-English dictionary before the fifties when new, politically inspired connotations came into vogue, have for *you*, the word for "right," the connotations "west," "to honor, esteem," and "to assist, protect" (*Cihai* 1947: 363; *Mathews* 1966: 1132). Likewise, the Chinese word for "left," *zuo*, had once the additional meaning of "east" (*Cihai* 1947: 685). Karlgren states that *you* formerly meant the place of honor (Karlgren 1923: 98). He does not elaborate on what he meant by formerly, but for China's most ancient historical period, the early Zhou period, we have Schuessler's dictionary

which merely records "to oppose" as the sole relevant connotation for *zuo* "left" (Schuessler 1987: 873).

The Manchu word *ici* "right," like its Chinese counterpart, carries at least two "positive" connotations, "in accordance with" and, in the term *ici acabumbi*, "to conform to." The Manchu word for "left," *hashû*, also means "erroneous, improper, depraved" while the term *hashûtai doro* connotes "heterodoxy, black magic." But before we decide that Manchu offers clearcut support for the claim, we should also note that in the old Manchu government, the first or primary department was known as *hashû ergi fiyenten* and the second or lesser department as *ici ergi fiyenten* (Norman 1978: 126, 144).

To conclude our linguistic survey, let us mention Tibetan. None of the three major Tibetan-English dictionaries lists any connotations for *gyaspa* "right" and *gyonpa* "left" that would either support or refute the claim (Das 1970; Goldstein 1975; Jäschke 1965).

What can we make of this? At the very least, we can conclude that the claim of a universal dichotomy of "right/wrong" in languages is false. But we must also acknowledge that there are occasional but tantalizing hints of a dichotomy of "right/wrong" connoted in the pair "right/left." These hints are not sufficient to affirm the claim, but they should encourage someone to delve deeper into Mongolian and other languages. It cannot be ruled out at this point that these allegedly universal connotations are also present in the languages cited in this paper, but if they are, they have largely escaped the notice of most lexicographers. A second conclusion one can draw is that our investigation does not challenge the claim of a universal preference for righthandedness. In fact, I would be willing to accept the claim, but it seems to me that if the human species does indeed prefer righthandedness and, moreover, has done so from time immemorial, this preference must surely be reflected in all languages strongly and unequivocally. Still, one should not give up so readily. Perhaps the connotations are there but too

weak to be universally represented in languages. In this case, one ought look into areas such as symbolism and folklore of the Mongols and their neighbors to see whether "right" and "left" are represented in ways suggested in the claim. Many standard works on symbolism that claim to be universal fall, in fact, considerably short of their aim. A good representative of this genre found in Western libraries is Cirlot 1971. On several pages (119, 130, 137-8, 302), "right" is associated with "positive" attributes and "left" with "negative" ones, thus seemingly supporting the claim under investigation here. Closer inspection, however, shows all sources confined to Europe, particularly heavy use being made of Carl Jung.

This is as far as we should go for now to help a claim in deep trouble. At the same time, we would be derelict in our duties as scientists if we did not look at the claim from a different and less flattering perspective. Even a brief investigation such as this paper gives rise to the suspicion that the claim is far from universal but is, in fact, primarily if not exclusively parochial. If anyone should ask why the claim of a strong linguistic connection is based almost exclusively on European examples, he could do worse than to start looking for the answer in footnote 2 on this page. What we seem to have here is Euro-Americans in effect saying, to paraphrase the American industrialist Wilson, "what is good for Europe is good for the world." It is parochialism masquerading as universalism, a flaw that seems to be shared by most members of the dominant species on this planet. We scientists should not perpetuate but actively suppress it in our scholarly labors as well as in our daily lives.

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