

## GESTURE ORIGIN OF SEMITIC LANGUAGES

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IN *Nature* of February 5, I gave a summary of my researches regarding the origin of human speech as set out in my book "Um frumtöngu Indógermana og frunheimkynni: On the primitive speech of the Indo-European people and their first home" (University Reykjavik, 1943). I tried to prove that the most important class of the 2,200 constructed Indo-European roots could be explained as imitation by the organs of speech of the movements of the hands. As my conclusions agreed with those propounded by Sir Richard Paget in his work "Human Speech" (1930), I published my researches. I have succeeded in adding much new material, not yet published, to my gesture theory. I was interested to see whether my conclusions for the Indo-European languages were confirmed or not in the Semitic group. I therefore undertook an examination of Hebrew (published in June in the Icelandic periodical *Einreiðin* under the title "Hebrew and Icelandic"). The result was surprising: as many as 60 per cent of the Hebrew roots could be explained by my own rules for the Indo-European languages.

As Pre-Semitic must be a starting point, just as Pre-Indo-European is, I chose those sounds where Hebrew shows no divergence from the Pre-Semitic. I began with *d*, *t*, *th* in Hebrew. Roots in Indo-European beginning with dentals show the predominant meaning "to touch, retain, destroy (the first man either pressed his teeth together or let the tip of the tongue rest against them), extend, draw (in this case the tongue has been drawn back from the teeth to the palate)". In Hebrew many roots beginning with dentals signify "to smash, destroy, force": *dabl*, press together; *dbš*, paste together; *dvs*, tread down; *dka*, subdue; *dkh*, smash; *dkk*, break, smash; *dyk*, destroy; *dchq*, press, drive; *dqq*, smash; *tbch*, kill, slaughter; *tby*, press into something; *thphph*, beat the drum; *thqy*, clasp one's hands; *trph*, tear; *thkk*, subdue, smash, break; *thmk*, grasp, hold tight, etc. Many 'dental' roots signify to extend, draw: *dag*, be sad (get contracted); *dgl*, hoist a flag (*l* is the movement of the tongue to the palate); *dvk*, tear away; *djjg*, draw up a fish; *dchh*, push (draw away); *twh*, spin; *tch*, cover (drag over); *tchh*, throw away; *tcch*, cover; *tyh*, lead astray; *tphch*, get expanded; *trch*, throw burdens on something, etc.

*l* in Ide. signifies especially "to move, withdraw, glide slowly, devour, lick, play, lie without movement". In Hebrew: *lhm*, devour; *lehd*, lick; *lyt*<sup>2</sup>, devour eagerly; *lyg*<sup>2</sup>, imbibe noisily; *lqq*, lick. Further: *dlg*, spring, play; *dllh*, hang relaxed; *dll*<sup>1</sup>, be limp; *dll*<sup>2</sup>, be slack, of slowly running water; *dolph*, leak, drip; *tbl*<sup>1</sup>, immerse in water; *lla*, put a spot on something; *tll*<sup>2</sup>, sprinkle; *thla*, hang up; *thlh*, hang on gallows; *thll*<sup>1</sup>, heap up gravel; *thll*<sup>2</sup>, betray (play a trick with one). Most Hebrew roots consist of three consonants, and it is clear from these and other examples that it is not always the first consonant that determines the meaning, this depending on the varying emphasis of the sounds.

*r* in Ide. signifies especially "to put in movement, make noise, erect". In Hebrew: *rvd*, roam; *rbk*, stir about; *rgy*<sup>1</sup>, be in turbulent movement; *rhh*, be

excited; *rkb*, ride. Further: *dbr*, drive; *dhr*, drive (horses); *dvr*, turn round; *dqr*, pierce; *dra*, push away; *drq*, pace, walk; *drr*, run incessantly; *trd*, drive away, etc.

*m* is formed by closure of the lips and should therefore signify "to finish, be silent", or something similar. This meaning appears seldom in Ide. In Hebrew: *dvm*, keep silence; *dmh*<sup>2</sup>, be quiet; *dmm*, become silent (from fright); *dmm*, manure (put cover on); *tym*, taste; *thmm*, be perfect, have finished.

Of 138 roots beginning with *d*, *t*, *th* in Hebrew, the gestural origin is seen in 51 roots: *l* in the middle or final position decides the meaning in 15 roots; *r* in middle or final position in 11 roots; *m* in the middle or final position in 7 roots. Thus 84 of 138 roots (60 per cent) are evidently gestural.

Similar results are obtained by examining other sounds. The *s* roots in Ide. often signify "to run" (of water or fluid). In Hebrew: *svch*<sup>1</sup>, flow away; *svch*<sup>2</sup>, sink down or in; *suph*, rush; *svph*, float, swim; *sqg*, sieve (a juice); *svb*, flow, run; *skk*, sink down (of water); *snr*, conduct water; *srh*, be moist.

The relationship between Ide. and Semitic, which has been suggested for hundreds of years, is not accepted by the majority of philologists to-day. The possibility of relationship is not denied (Herm., Hirt and others). If the gesture theory is right, this doubtful question becomes clear. The first Indo-Europeans as well as the first Semitic people began to speak by imitating the signs of the hands with their speech organs. This primitive state of speech shows clearly in many Ide. and Semitic words, which apparently seem to be of the same origin (comp. Herm. Möller's comparative Ide.-Semitic dictionary). A common origin is possible. But if the constructed Pre-Indo-European language is compared with the constructed Pre-Semitic language and the different development of these two groups is kept in mind, a common origin must be at least 10-20,000 years old. A systematic research of all available Semitic material from this new point of view is now needed.

<sup>1, 2</sup> Different meanings of the same root.

## MONOCHROMATISM\*

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MONOCHROMATISM is a type of colour-vision deficiency in which the observer, a monochromat, can match any colour by any other colour, merely by the adjustment of their intensities. It is a very rare form of colour-vision deficiency, its frequency of occurrence in the male population being stated to be so low as 0.0003 per cent<sup>1</sup>, as compared with 6 per cent for anomalous trichromatism and 2 per cent for dichromatism. Of this rather tentative 0.0003 per cent, nearly all the recorded cases are monochromats by virtue of their having no cone-vision. Such persons, whose defect is usually described as cone-blindness, rely solely on the functioning of the rods in the retina, and suffer from other ophthalmological defects such as low visual acuity and nystagmus. As might be expected of persons using a mechanism which, in normal persons, only functions when the eyes are dark-adapted, they suffer

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