

emotions resemble their instinctive prototypes that they are often thus described—as when a woman shrinks from untruth or a caterpillar, or when a boy dodges a blow. Habits are, in fact, pseudo-instincts; they have the same function; they are substitutes. Unlike real instincts, they are not infallibly useful, but, on the whole, they are superior, for they fit the individual to his particular environment, and, since they may change in future generations otherwise than by slow processes of natural selection, may be improved more rapidly.

On the other hand, the traits created by curiosity bear no resemblance to instincts. They are intellectual, not emotional. In the little child the two instincts work hand in hand, but in the adult they are often opposed; for the traits derived from imitation (faith, right belief, and morality, as we term them in ourselves; bias, prejudice, fanaticism, and superstition, as we call them in others) may prevent the development of those traits which curiosity should bestow—as is best seen among savages, creatures of custom and emotion, who, following from age to age in the ancestral footsteps, add little to their command over nature. Among modern civilised peoples the ecclesiastical mind is especially a product of imitation, the scientific mind of curiosity. Consider how unlike they are, and how different all societies trained mainly through imitation (*e.g.* medieval Christians and modern Mohammedans) are from those trained through curiosity (*e.g.* ancient Greeks and the more “enlightened moderns”).

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### Walaeus and the Circulation of the Blood.

It has been my good fortune to come across two epistles written by Johannes Walaeus (1604–1649), professor of medicine in the University of Leyden in the year 1640. The two epistles occur at the end of Bartholini's “Anatomy,” published by Nich. Culpeper, Gent., and Abdiah Cole, Doctor of Physick: printed (in English) by Peter Cole; London, 1665.

Walaeus was greatly interested in the discovery of the circulation of the blood by Harvey, and in order to confirm it performed a large number of experiments on dogs, cats, rabbits, and monkeys. Having arrived at the conclusion already reached by Harvey, that the blood does not move itself, but is driven, he asks the questions “How is it driven?” and “What is the mechanism?” The answer is given in these two epistles written by Johannes Walaeus to his friend Bartholini, the professor of anatomy at the University of Copenhagen, and is as follows:—

“And that the Blood is driven by the *Vena Cava* into the right Earlet of the Heart, I have manifestly seen in the dissection of live Creatures: for in all motions of the Heart, the first beginning of Motion is so or no, because the Cava was knit to the Earlet [*i.e.* Auricle] and the Heart, we cut the Heart and the Earlet quite off in living Dogs, at the *Vena Cava*, and we observed, that even then the *Vena Cava* did a very little pulse, and at every time did send forth a little Blood. And therefore the *Vena Cava* hath certain fleshy fibres, for the most part about the Heart, which elsewhere you shall not find in *Vena Cava*. Now the motion of the *Vena Cava* is most evident near the Heart.”

Writing in 1913 Sir James Mackenzie says: “Until very recent times no definite remains of the sinus

venosus had been found. Keith and Clark have described a small node of tissue—the sino-auricular node—at the mouth of the superior vena cava. This tissue consists of fine, delicate, pale fibres faintly striated.” In the same year Dr. (now Sir Thomas) Lewis tells us that “the wave of contraction starts in a small and newly discovered mass of tissue the sino-auricular node, which lies embedded in the upper and anterior end of the sulcus terminalis.”

On the subject of auricular fibrillation Walaeus is also very interesting for he tells us that “the Impulse into both Earlets and into both Ventricles happens at one and the same moment of time; save in Creatures ready to die, in which we have observed that both Earlets, and both Ventricles do not pulse at one and the same time. But when the Blood is thus driven into the Ventricles of the Heart, the Heart hath no motion evident to the Eye, but putting our Finger upon the Heart we perceive something to enter into the Heart, and that the Heart becomes fuller, which also Harvey hath observed. Yea, we have observed that the Earlet hath pulsed seventy, sometimes an hundred pulses before any motion of the Heart followed.” Somewhat similar observations had, however, already been made by Harvey (“De motu cordis et sanguinis,” 1628, Chapter IV.).

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### Transcription of Russian Names.

SOME 35 years ago I made in the columns of NATURE the proposal to adopt for the transcription of Russian names a few letters from the Bohemian alphabet. My letter was submitted to the authority of the editor of the Journal of the Chemical Society (for I was at that time Abstractor of that Journal for Russian literature), but he did not agree with my proposal, though later he accepted it for the Journal.

I beg to repeat my old proposal; for a great part of Russian scientific life is concentrated in Prague, and the Bohemian mode of transcription has, moreover, been accepted by philologists and by many geographers. Bohemian is now the State-tongue of an independent State. It is necessary to introduce only the following few letters: č = tch, ě = dj, ě = ye, ch = kh, ň = nj, š = sh, ř = tj, and ž = zh (joli); á = long a, and if you add the Bohemian ř which has two pronunciations: rž and rš, you can pronounce also all Bohemian names.

The following comparison between the old and new mode of spelling shows that the latter has also the advantage of a great economy in printing:

Tchitcherine (12)	= Čičerin (7)
Zhemtchuzhnyj (13)	= Žemčuzňnyj (9)
Mendeleeff	= Mendělějev
Konj (4)	= Koň (3)
Tatjana (8)	= Taťána (6)
Pushkine (8)	= Puškin (6)
Djadja (6)	= Ďáda (4)
Metchnikoff (11)	= Měčnikov (8).

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