

Humans



To hear a 3,000-year-old conch shell trumpet being played, visit www.sciencenews.org/conch

Talking alike cements relationships

Similar speaking styles augur romantic success, studies find

By Bruce Bower

A subtle, surprisingly mundane banter lies at the heart of romance. Love's flames get fanned when two people similarly employ words such as *I, it, but* and *under* in conversation, a new study suggests.

Conversation partners' related use of function words — such as pronouns, articles, conjunctions and prepositions — augurs well for mutual romantic interest and stable relationships, says a team led by James Pennebaker and Molly Ireland of the University of Texas at Austin.

Unconscious coordination of this sort, called “language-style matching” by the researchers, signifies not how much two people like each other but how much attention each pays to what


the other says, Pennebaker, Ireland and colleagues propose in an upcoming *Psychological Science*.

Function words tap into verbal coordination between people because these words are independent of conversation topic and require shared knowledge to be used effectively. If one friend works in an office and another in a quarry, for example, the friends will use different nouns and verbs to talk about their work but similar function words if the two feel connected and understand each other.

The researchers analyzed 40 conversations between speed daters, a recent focus of relationship researchers (*SN: 2/14/09, p. 22*). Opposite-sex pairs who used similar types and frequencies of function words were more than three times as likely to express mutual interest in dating

as pairs whose speaking styles differed. A second experiment of 86 young-adult couples in committed relationships found that those using similar writing styles during 10 days of instant-messaging chats were particularly likely to stay together over the next three months.

Pennebaker suspects that language-style matching waxes and wanes with relationships. In the September *Journal of Personality and Social Psychology*, he and Ireland analyze function words in letters between psychoanalysts Sigmund Freud and Carl Jung, poems and plays of Elizabeth Barrett and Robert Browning and poems of Sylvia Plath and Ted Hughes.


Language-style matching diminished as each relationship soured. Notable declines occurred when Jung left Freud's psychoanalytic group, when Elizabeth Barrett welcomed death's approach while her husband dreaded it, and when Plath and Hughes' marriage fell apart. 

Ancient horns played eerie tunes

Acoustic scientists put their lips to ancient conch shells to figure out how humans used these trumpets 3,000 years ago.

The well-preserved, ornately decorated shells found at a pre-Inca religious site in Peru produced haunting, droning tones that could have been used in religious ceremonies, the team reported November 17 at the Second Pan-American/Iberian Meeting on Acoustics in Cancun, Mexico.

Archaeologists had unearthed 20 complete *Strombus galeatus* marine shell trumpets in 2001 at Chavín de Huántar, an ancient ceremonial center in the Andes.

Polished and etched with symbols, the shells had well-formed mouthpieces and distinct V-shaped cuts (top). The cuts may have been used as a rest for the player's thumb, says study coauthor Perry Cook, a computer scientist at Princeton University and an avid shell musician. —*Marissa Cevallos* 



Theory trampled

Doubt cast on Lucy tool use

By Bruce Bower

Marks on two fossil bones, recently presented as evidence that Lucy's ancient hominid species butchered animals for meat, likely resulted from animal trampling instead, say anthropologist Manuel Domínguez-Rodrigo of Complutense University of Madrid and his colleagues.

Scientists working in Ethiopia unearthed a pair of 3.4-million-year-old animal bones that, in their view, bear incisions created as Lucy's kind, *Australopithecus afarensis*, sliced meat off carcasses with sharp stones (*SN: 9/11/10, p. 8*). But Domínguez-Rodrigo and his colleagues made similar marks just by walking over deer bones while wearing shoes with grass-covered soles, they reported online November 15 in the *Proceedings of the National Academy of Sciences*. 