

Frustrated with football's pain fakers? Blame evolution – according to a new study

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Psychologists at the University of Sussex have shown that football's pain fakers may be tapping into an evolutionary strategy that aided our ancestors' survival and helped speech emerge.

Dr. Jordan Raine, a psychologist at the University of Sussex, says:

"We've seen fantastic football from the likes of Neymar and Mbappe at this year's World Cup, but they've also treated us to an unhealthy dose of play-acting antics and football con-artistry: quadruple rolls brought on at times by a mere Siberian breeze, often accompanied by devious squeals designed to deceive the referee into brandishing a colourful card or awarding a dangerous free-kick.

"While we all want to see such behaviour kicked out of the beautiful game, the vocal aspect of [pain](#) fakery – both on and off the pitch – is an effective strategy with evolutionary roots that may help explain how speech evolved, according to new research.

"Genuine pain causes both human infants and nonhuman mammals to produce cries, which are highly effective at engaging caregivers to respond and assist.

"From toe stubs to childbirth, adults cry out in pain too – but evidence suggests that humans routinely exaggerate or minimise our vocal responses to genuine pain depending on context and mood. This suggests that pain cries aren't just honest windows into our internal state, but social tools to influence others. To investigate further, we wanted to see if adults could produce convincing cries in the complete absence of pain."

For the study, which is newly published in the journal Bioacoustics, the University of Sussex psychologists recruited actors-in-training to simulate vocalisations expressing three levels of increasing pain, and asked listeners to rate how much pain each vocalisation conveyed. They then examined which aspects of their voices vocalisers manipulated, and how this influenced listeners.

The researchers found that vocalisers simulated increasing pain using similar voice characteristics to those that communicate authentic pain in

babies and other animals. The faked pain cries also influenced listeners' perceptions in a similar way.

The researchers' findings present the potential for a device to assess pain levels in people and animals that cannot use language to express their level of pain.

Dr. Raine continues:

"From an evolutionary perspective, for our ancestors navigating an environment with danger at every turn, this ability to convincingly simulate or exaggerate pain – and, crucially, elicit more urgent aid – may have provided a vital survival advantage.

"But more than this, developing the ability to produce and modulate pain cries and other vocalisations at will, as opposed to the automatic vocal responses to stimuli and internal states we observe in nonhuman mammals, was likely a key step in our progression from primitive nonverbal noises to complex speech.

"The light bulb realisation that the voice can intentionally be used to influence others, rather than just honestly communicating information, paves the way for a whole street of light bulbs, and an increasingly flexible use of voice. Simulating pain in cries would logically lead to more complex and varied vocal deception, and eventually, the production of an arbitrary sound whose meaning is agreed culturally rather than biologically. Or in other words, the first words."

Provided by University of Sussex

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