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Humor – Why and how?

Evolution and adaptive value of the sense of humor

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Abstract: Humor is one of the most complex traits of mankind. There are many theories, from the Accepted Theory of Humor, to the False Alarm Hypotheses, or the Mind Reading Hypotheses. Besides these evolutionary theories, there are several social and psychological ones. In this article, I review some of these theories, and suggest a way to merge them in one hypotheses.

Key words: humor, laughter, evolution, social interactions

Introduction

Humor is perhaps one of the defining characteristics of *Homo sapiens* (Howe, 2002). There's probably no cultures without it, from Australian natives (Chewings, 1936; Schulze, 1891) to the Western civilisation, from the desert dwelling bushmen to the Chinese. Humor consumes much of our time, energy (Howe, 2002), and laughter, has its costs as well: e.g. it could attract predators (Weisfeld, 1993). In the following article, I'd like to review some of the evolutionary theories, as well as psychological approaches, and furthermore, I'll try to smooth the differences between these often contradictory theories.

Laughter, humor

Laughter is a social signal, often, but not always accompanying humor (Ramachandran, 1998). It is a time and energy consuming activity, and as a loud signal, it can even attract predators or other sorts of enemies. The question is, what are the advantages, if the disadvantages are plainly understandable? There are two main theories concerning laughter.

The first one is the false alarm hypothesis (Ramachandran, 1998) which is based upon the idea, that every humorous situation is composed of a tension-building phase, concluding in a shift, which denies the expectations of the viewer. In addition this 'shift of paradigm' (Kuhn, 1962) is supposed to be less of a threat than the expected outcome. If a situation takes a turn, but for the worse, we rarely find it amusing. The false alarm hypothesis assumes, that when the shift reveals the anomaly as of 'trivial consequence', the viewer sends a loud signal (i.e. laughter) which informs those who accompany him, that there's no need to be alert, there's no danger. Those, who are around the sender, are probably related to him, sharing same genes, or if regarding humans, could be the sender's friends or other people important for him in some way. This may explain why people are reluctant to laugh when in the company of strangers (Ramachandran, 1998).

However, I might add, that this may not be the only reason for this reluctance, as there are cultural factors, in some situations, for example amongst strangers, it may not be considered appropriate to laugh loudly. Furthermore there's evidence, that people with better self-assuring humor are less self-regulating (Pálfay, 2008), which should support the impact of cultural factors mentioned above (i.e. they don't care if it's not appropriate).

On the other hand, *Homo sapiens* can use laughter for various ends, not only to help his kin to save energy and time.

False alarm theory may be supported by the fact, that when a patient's insular cortex is damaged, he can feel pain, but it no longer hurts, and it has been observed, that some of these patients giggle, when exposed to pain. This could be, because their expectation (i.e. it will hurt) is denied, and as the theory states, the patient signals loudly, that there's no danger (Martin, 1950).

The other theories assume, that laughter is a way to show the appreciation of the viewer towards the humorist, ensuring him to continue this social interaction. The latter approach is mainly based on the social value of humor.

Humor, as social interaction

There are those, who don't agree with the false alarm theory, arguing that laughter is one thing, and the sense of humor is completely another, which is much more sophisticated, then what should be expected from the false alarm theory. This opposite approach is considering humor as a socially advantageous activity.

Paul McGhee proposed four selective advantages of humor: „facilitation of social interaction; popularity and friendship; socially acceptable expression of aggression and; moderation of assertive/dominating styles of interaction.”

As humor is really complex, those who utilize it are supposed to have a creative mind. Some argue, that humor should be a part of the education, as it encourages creativity and flexibility (Ramachandran, 1998).

A military study seems to confirm this idea, in which soldiers were examined concerning the sense of humor, and their ability to cope with stress. (Bizi, 1987) It has been found, that those who were reported humorous (by peers, not by self) were more likely to overcome difficult situations. There was no difference found between self-centered and other-directed humor.

Those with a sense of humor can more easily solve conflicts (Norrick, 2007) can bolster their social status, achieve greater fitness (during courting), or may even demonstrate superiority, as it was observed in Inuit tribes who „traditionally resolved disputes by engaging in public contests of ridiculing each other” (Weisfeld, 1993)

„Evolving theory”

Taking into consideration the theories above, I'd venture, that all of them, being as far from each other, as they are, are true in some ways. I'd propose the following scenario: It may be possible, that in the beginning smile and laughter evolved as it is stated by the false alarm theory, being the first an aborted orientation and the latter a signal to the kin (who share genetic information with the one sending the signal, thus increasing fitness on a group-level) However, as humans evolved, and a more complex brain was at their disposal, social interaction, symbolic thinking and speaking became available, the use of humor, laughter and smile may have shifted, evolved as well. Being now a social creature, humor became a sophisticated method usable for various ends, from courting, to easing tension (Freud, 1963), from expressing aggressive emotions in an acceptable way (which is somewhat more common in the male sense of humor (Pálfay, 2008) , to bolstering social status (Weisfeld, 1993).. as a creative mind is needed for a good sense of humor, it may also be a way to show our superiority over others, increasing self-confidence. It can be used to end, or postpone conflicts, or to defend ourselves ridiculing the unpleasant.

Therefore the sense of humor may be one of our traits, that evolved from a basic, defensive mechanism aiming to cope with anomalies, to one of our most complex and sophisticated tools, usable in nearly every endeavour in our life.

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