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Book Review

Survival of the Funniest

A review of Rod Martin, *Psychology of Humor: An Integrative Approach*. Elsevier Academic Press: Burlington, MA, 2007, US\$74.95, 446pp. ISBN 13:978-0-12-372564-6

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The scientific study of humor has much in common with evolutionary psychology. Humor is a ubiquitous phenomenon, present as part of everyone's life; studying it can illuminate many aspects of human behavior. Similarly, an evolutionary framework is imperative in any discussion of human beings. Yet, despite their respective importance, both humor and evolutionary psychology have been neglected subjects in mainstream psychology over the years, rarely mentioned in psychology textbooks and hardly ever acknowledged in introductory psychology classes.

Although things have changed rapidly for evolutionary psychology in the past decade, humor studies are still far from being center stage in psychology. It is interesting to compare the history of both fields for another reason. The objections to humor research parallel in some respects those raised against evolutionary psychology. Whereas studying humor is unlikely to cause any political storm, many think there is not much importance in humor beyond the anecdotal level. Part of this rejection arises because over the years, social scientists tended to focus on negative aspects of human behaviors and emotions, such as psychopathologies and depression. Although humor also touches on some harmful aspects, the common perception of humor is positive. This led to neglect in studying the subject, which is itself a good reason to learn more about it. In recent years however, especially with the rise of "positive psychology," there is growing interest in studying humor. This shift to examine positive behaviors and emotions comes from the increasing understanding that positive psychology offers an important contribution to people's well being, cognitive abilities, and more.

The Psychology of Humor by Rod Martin was written as an effort to promote the study of humor in mainstream psychology. If nothing else, Martin's book shows that humor is a serious subject of study, and humor researchers should not be taken lightly. There is a bit of a paradox for any humor researcher, as many expect that writing about humor in academia should be funny, and are somewhat surprised at the dryness of most humor papers and books. However, as Martin correctly points out, expecting humor research to be funny

is analogous to assuming that writings about human sexuality should be sexually arousing (p. 30).

It is important to note that Martin's book does not focus on evolutionary explanations for humor. In fact, only four pages are devoted specifically to evolutionary theories of humor and laughter (although chapter six is devoted entirely to the psychobiology of humor and laughter). Nonetheless, his book is essential to any researcher who wishes to study humor and laughter from an evolutionary standpoint.

First, Martin is clearly sympathetic to the evolutionary framework, and throughout the book he mentions evolutionary approaches for understanding humor. This starts in the introduction, where he specifies the key reasons humor is a product of natural selection and why evolutionary explanations should be considered. Among the major tenets: People laugh in every society in the world (although what they are laughing at may vary). Laughter develops spontaneously in babies at about four months old. Even blind and deaf babies smile involuntarily, meaning that no early interaction or observation of laughter in others is required to elicit it. Brain imaging studies explored specific neurological paths and areas where humor is processed as well as enjoyed. Other primates exhibit two expressions - the silent bared teeth display which is equivalent to the human smile, and the relaxed open mouth display - which researchers see as homologous to human laughter (Gamble, 2001; Preuschoft and Van-Hooff, 1997). By looking at the phylogeny of laughter, we can trace the evolutionary origin of the trait. In fact, the origin of laughter probably extends well before primates. Recent studies suggest that some form of laughter might exist in rats, which produce high frequency sound (outside the range of human hearing) when tickled by humans and during social rough and tumble play. Rats will actively seek tickling from humans, and prefer other rats that produce the high frequently sound (p. 168). Non-human examples of laughter illustrate that we are not unique in our quest for and enjoyment of it. What makes us special is the range and amount of laughter we seek and produce, which in large part stems from our unique evolution, as well as our culture. Indeed, as Martin writes (p. 3): "...being able to enjoy humor and express it through laughter seems to be an essential part of what it means to be human."

This part of being human seems to be hidden from most non-humor researchers who sometimes view humor as an isolated phenomenon that has no significant implications for human behavior. This somewhat naïve look at the subject tends to change once one starts seriously studying humor and encounters the challenges it evokes. Two of the key problems in researching humor are that there is no clear and accepted definition of humor, and the relationship between humor and laughter are not fully established. Humor is one of those subjects for which everyone seems to have an intuitive understanding, but when discussing what it is, no one can agree. For example, what is funny for one person might be offensive to another. Chris Rock can easily get away with jokes about black people. If a white person told the same jokes, however, many would consider him racist. Sometimes the situation itself can change the view of a joke: a woman who is offended by a sexist joke in a mixed group might laugh if it were told by the same person privately.

Humor can also involve laughter or not, but not everything that involves laughter is humorous, such as tickling. To add to that confusion, we can sometimes find something not to be funny even though we can "see" the humor in it. Such problems led some researchers

to draw conclusions that are valid only for a narrow range of the phenomena.

Due to the complexity of the topic, it is not surprising that hundreds of theories, varying in specificity, have been offered to explain humor. Evolutionary explanations are no exception. Although it is widely accepted that humor has an evolutionary origin, how it evolved and what evolutionary purpose it served is far from clear and is heatedly debated (Gervais and Wilson, 2005; Polimeni and Reiss, 2006). No one has yet proposed a comprehensive theory of humor, and a unitary theory may not even exist, as different aspects of humor may have different origins and purposes.

Take, for example, one of the most common explanations for the adaptive function of humor, known as the “false alarm” theory. The idea gained recent popularity after it was put forward by the famous neuroscientist Ramachandran, although it was known for at least two decades (Chafe, 1987; Ramachandran, 1998). This theory holds that when facing an ambiguous event, laughter serves as a signal to other members of the group that the perceived threat or anomaly is in fact unimportant. Using a stereotyped vocalization such as laughter helps others to determine the non importance of the event. Thus, they should not allocate energy towards it. Whereas this theory has intuitive value and can explain certain aspects of humor (for example, why laughter is contagious), it is not hard to find examples that do not quite fit. One of the open secrets among humor researchers is that most laughter comes in response to trivial comments. Despite the tendency to focus on analyzing jokes, they comprise only a small portion of what humor is. Thus, the importance of humor in a social context goes far beyond the narrow definition that the “false alarm” theory seeks to explain.

But the social aspect of humor is only one lens through which it can be viewed. As Martin notes, a complete understanding of humor also involves developmental, cognitive, personality and other aspects as well. Each chapter in his book is organized around each of the sub-disciplines of psychology. This is also what many evolutionary psychologists envision when they think about the ultimate introductory psychology textbook. Like humor, incorporating the topic into existing paradigms illustrates how every aspect of psychology can benefit from it. This leads me to the second main reason that this book is important for anyone interested in evolution and humor.

If you search any academic database in the social sciences, you will find thousands of papers on humor. Alas, only a small fraction of them are scientific studies, while the amount of qualitative research in disciplines such as sociology, linguistics, cultural studies and others is enormous. Without taking anything from these fields, it is impossible to develop valid theories, evolutionary or otherwise, without hard data. Although the book’s title focuses on the psychological aspects of humor, Martin reviews studies from many other disciplines such as sociology, anthropology and biology. He systematically reviews recent scientific research, and includes an extensive reference section. Because of this, reading the book in its entirety might be tiresome. However, this is a small price to pay considering the large benefits that can be gained it. Each chapter contains dozens of fairly detailed descriptions of the various studies, and which might be challenging for the average undergraduate student (something that Martin acknowledges). It is not your typical introductory textbook, with flashy pictures and diversions that try to catch the eye, but a serious tome that is up to the task of providing the most accurate and comprehensive

account of the scientific study of humor.

The case of humor and play illustrate this point. Many studies documented throughout the book can explain how humor might have evolved from play behavior. Play and laughter develop approximately at the same age in infants. Most developmental psychologists believe that humor and laughter develop in children within the play context, and many view humor as just another type of mental play. Humor and play are similar in many ways. Both are enjoyable, do not have any obvious or immediately serious function, and are performed in safe environments with familiar people (p. 234).

Other primates, including our closest relatives, the chimpanzees, employ the relaxed open mouth display as an apparent sign of enjoyment during social play. Martin quotes several studies that show how vocal games like play fighting, gnaw wrestling, catch hands and play chasing are common in eliciting this display (p. 167). From chimpanzee studies we also learn that rates of affinity between individuals increase following the silent bared tooth display.

This type of behavior is commonly observed in children's play as well. Children from all over the world laugh when chasing and fleeing from each other, wrestling, etc. It is not uncommon to see a lot of hitting during such scuffles, but in order to decrease the hostile nature of this interaction there is also much tickling involved. This led Pinker (1997) to speculate that humor has an indirect adaptive value, since it does not enhance fitness directly. Pinker demarcated humor in the social context of conflicts. People use humor to undermine others' authority in a refined way, and without having to suffer the costs of using physical force. It is a way to practice fighting in a safe environment. As a reliable indicator for knowing that an event is not a real fight, children and other primates tickle each other, and laugh as a consequence. It appears, therefore, that during our evolutionary history, laughter has indicated that an interaction is not truly aggressive, something that continues to develop during development. It is also possible that throughout play individuals can rehearse and develop physical and social skill they will need as adults, with humor playing a large part.

The adaptive value of humor expands, of course, well beyond play behavior. Play may indeed depict the evolutionary roots of humor, but humans clearly use and enjoy humor in many other ways. The adaptiveness of humor must take into account both the producer and the appreciator. Laughter itself can be both a signal and a behavioral response, and it is not always easy to distinguish between the two (Gervais and Wilson, 2005). The behavioral response lies in the "good feeling" that we experience after a good laugh, which Martin calls mirth (surprisingly, there is no agreed term for that emotion). But the main question is, what benefits does humor supply for both the joke teller and the listener?

Recently, Miller (2000) suggested a comprehensive theory, based on sexual selection, that takes into account the co-evolution between signaler and recipient. In this view, producing humor serves as a "fitness indicator" displaying the genetic quality of the individual signaling. Since males are the ones mainly competing over mates, and females are choosier in selecting them, we should expect that females will be more sensitive to the production of humor by males, and will be attracted to the ones with the best sense of humor. It is well documented that females value a sense humor in a potential mate

compared to males (Feingold, 1992). Females tend to laugh more when there are males in the room, while males' laughter does not change much in the presence of females. Moreover, a recent study showed that even though both males and females seek partners with a sense of humor, they actually mean different things. Males want a female that will laugh at their jokes, while females look for a male that will make them laugh (Bressler, Martin, and Balshine, 2006).

As part of sexual selection, people also compete within each sex, and evolutionary theories of humor could benefit by trying to explore the role of humor in this competition. For example, how does the use of humor help gain and maintain status? Is it possible that the laughter which serves as a submissive signal in other primates serves a similar purpose in human beings? Does other-deprecating humor act as a way to ostracize other people? For that, the many studies on status, group's identity and cohesion, and even ingratiation that are abundant in the book could help shed light, though much more research is needed.

This book is admirably comprehensive, organizing humor studies in a readable manner. The only caveat, which should not diminish its significance, and which I hope will be fixed in later editions, is the absence of a research methods chapter. Since *Psychology of Humor* is divided into sub-disciplines of psychology, it makes sense to include a special section on how humor should be researched. Although many methodological comments are scattered throughout the book, humor research faces stiff challenges, and addressing these issues is necessary. For example, many psychological studies use jokes or cartoons in their experiments, but this is only a small part of how humor is experienced in everyday life. This also exemplifies another major problem: studies of humor are overwhelmingly conducted in the laboratory, and laboratory studies notably do not reflect the natural occurrences of humor and laughter. Since most laughter transpires during natural conversations, laboratory studies readily miss the essence of humor. Of course, developing methods for humor studies stems directly from how humor is defined and consequently what humor really is. This is a matter that still remains to be elucidated.

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