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Research Paper

Does the Nature of Research Reveal Differences in Humor Styles?

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ABSTRACT

The present study explored the differences in humor styles between agricultural and computer scientists. The participants included 100 agricultural scientists and 100 computer scientists. The age of agricultural scientists ranged from 29 to 40, whereas computer scientists were between 25 and 40 years. Descriptive statistics and a t-test were computed to analyze the data. The findings reveal a considerable difference between agricultural and computer scientists in affiliative, self-enhancing, and aggressive humor styles. However, there was no difference in self-defeating humor between agricultural scientists and computer scientists. Future researchers can examine how disparities in the degree of collaboration, autonomy, and working situations of scientists operating in diverse fields contribute to individual differences in the extent and usage of humor.

Keywords: *Humor Styles, Scientists, Agricultural Scientists, Computer Scientists*

Research is indispensable for the betterment of society. When conducted ethically, it can be transformative and uplifting, smearing the world with salubrious outcomes. The progress of nations rests on the fulcrum of research and development initiatives. The initial curiosity that kindles the desire to seek answers and tread the path of discovery produces the preliminary leap in the research process (Spielberger & Starr, 2012). However, researchers must be determined and committed to making it come to fruition.

Research is an intensive, laborious process with a welter of steps and procedures requiring meticulous planning and execution. Sometimes even the best efforts of researchers fail miserably, accentuating the complex nature of research. The disappointments and frustrations ingrained in the research process make it a breeding ground for stress and despair (National Academy of Sciences, 1995). Researchers must combat failures and cultivate resilience to succeed and meet their research goals. Besides cognitive ability, researchers should acquire emotional skills to weed out impediments and make progress in scientific inquiry.

Leaving out the horrendous suffering and misery, COVID-19 did well to resurrect the value of research (Harper et al., 2020) and turn the spotlight on its massive scope in transforming nations and building flourishing communities. Research advancement permeates national boundaries, affecting people's lives in numerous ways. Even the remotest communities are not entirely immune to the metamorphic power of research and eventually come under its

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grip. Research is an irrefutable means to revive societal well-being and promote thriving, especially when the world is grappling with problems such as climate change and ecological degradation that might soon turn our planet inhospitable. It is a practical solution (Bornmann, 2013) for the crises and afflictions hampering the progress of nations. Good research stems from the propensity to discover the truth (Grinnell, 1992) and create a better world, while the remaining motivations driving research efforts drift to the periphery. The ineffable benefits of quality research outweigh the risks and costs (Martin, 1998), making it the surest way to attain Sustainable Development Goals.

The challenges emanating from specific research domains demand distinct competencies (Nurius & Kemp, 2019) and outlooks to streamline scientific progress. The nature of research is explicitly linked to the working conditions and the degree of collegiality needed to achieve research goals. The overarching goal of conducting research is to add to the repertoire of knowledge, and scientists operating in different fields of inquiry accomplish this goal by formulating research questions and designing experiments specific to their discipline. While agricultural researchers strive to enhance productivity and crop quality (Loebenstein & Thottappilly, 2007), improving the livelihood of farmers, computer science researchers develop software and hardware to mitigate diverse problems, leverage technology, and strengthen world infrastructure.

To a considerable degree, the job of agricultural scientists alternates between working outdoors in the field and operating indoors in the laboratory. Occasionally, they spend time in nurseries and greenhouses. Although the work of agricultural scientists demands a fair degree of collaboration, they mostly prefer working independently (Reddy & Venkateswarlu, 1989). A few agricultural scientists also spend time teaching and carrying out extension activities besides conducting research (Manjunath & KK, 2011). The job of agricultural scientists demands sifting through an array of scientific data (Diekmann, 2012); to draw inferences and reach meaningful conclusions. Agricultural scientists aspire to fix problems arising from climate change, population explosion, and dreadful ecosystem degradation (Midmore, 2017) and put in painstaking efforts to enrich the lives of farmers.

On the contrary, computer scientists spend most of their time working in offices, sometimes remotely. They design hardware, develop software, generate algorithms, and discover solutions to computing problems in diverse settings. The constant need to work around complex algorithms and develop sophisticated designs to increase efficiency and improve the technological landscape demands high levels of collaboration and teamwork among computer scientists (Bureau of Labor Statistics). Even though computer scientists spend substantial time in meetings, their primary work involves monitoring projects, testing prototypes, reviewing products, and solving complex problems, paving the way for technological advancement.

In addition to the disparate lines of investigation, the work of agricultural and computer scientists reveals striking differences in the working conditions, degree of autonomy, and need for collaboration. While agricultural scientists predominantly work in the field or lab, computer scientists work in offices or remotely. Furthermore, the work of agricultural scientists involves greater autonomy and a lesser need for collaboration compared to computer scientists. The differences in the research terrain of agricultural and computer scientists demand distinctive competencies and temperaments for driving results.

To embark on research, scientists must rely on cognitive and non-cognitive abilities. Whereas cognitive abilities help scientists design and conduct experiments, non-cognitive abilities allow scientists to pass through the labyrinth of obscurities embedded in the research process. Among the several non-cognitive abilities, humor is glorified for elevating job performance (de Souza et al., 2019) and promoting thriving at work (Sclavi, 2021). Humor has garnered the unswerving interest of psychologists, scholars, and writers. While some, intrigued by its stupendous quality, favored studying it, others wove magic by using it to create literary masterpieces. This multifaceted construct generated substantial research output cutting across transdisciplinary borders (Ford et al. 2016), vividly portraying its usefulness. Humor ameliorates workplace negativity and boosts productivity. It expands creative potential (Romero & Cruthirds, 2006) and augments problem-solving (Zhou et al., 2021), thereby charting the course of scientific inquiry.

Scientists benefit from having a sense of humor. The complexity nested within the research process makes cognitive and emotional faculties vital for scientific progress. A sense of humor is intimately tied to intellectual prowess (Christensen et al., 2018). The ability to create and apprehend jokes is an offshoot of wit, the cognitive segment of humor. Besides wit, humor comprises emotional and physiological segments: mirth and laughter.

While there are multiple ways to conceptualize humor, exploring individual differences in the type and amount of humor would divulge insights into distinct joking behaviors that stimulate scientific inquiry. Martin et al. (2003) proposed four types of humor, of which two hold the potential to generate favorable outcomes. Healthy humor types, such as affiliative and self-enhancing humor, entail using humor to foster cordial relationships and enhance psychological functioning. In contrast, deleterious humor styles, like aggressive and self-defeating humor, lead to opposite outcomes. Aggressive humor applies scorn, ridicule, and mockery to damage the target's self-esteem, whereas self-defeating humor involves deliberate and exaggerated attempts to bring oneself down to produce laughter. Both aggressive and self-defeating humor impair coping and harm interpersonal relationships.

Individual differences in the use of humor may be attributed to factors such as personality, education (Saroglou & Scariot, 2002), upbringing, societal ideals, and cultural influences. Furthermore, the nature of the job could also determine the type and extent to which humor is used, particularly in a workplace context. The current study looked at how agriculture and computer scientists differ in their sense of humor. Besides contributing to current knowledge, this research would also help discover the situational variables determining the proclivity for distinct humor styles. Likewise, it would assist organizations in designing specific learning and development interventions to generate top-tier research.

METHODOLOGY

Participants

The participants comprised 100 agricultural scientists and 100 computer scientists from India. Agricultural scientists were drawn from agricultural research institutions. They are primarily involved in applying scientific ideas and methodologies to develop new technologies for increasing crop productivity and safeguarding the environment. On the other hand, computer scientists worked at software and hardware development centers. Unlike other computer professionals, they display a higher theoretical understanding and ingenuity level, which helps them handle complex issues and develop new technologies. As a group, computer scientists ranged in age from 25 to 40, while scientists in the field of

agriculture ranged in age from 29 to 45. Both groups belonged to a higher middle class or a higher socio-economic status.

Instruments

Humor Styles Questionnaire (HSQ): Despite the availability of various instruments for measuring humor, it was considered appropriate to use the Humor Styles Questionnaire (HSQ) developed by Martin et al. (2003) for the study. This 32-item instrument provides scores on affiliative, self-enhancing, aggressive, and self-defeating humor styles. The scale has satisfactory levels of reliability, making it appropriate for the study.

Procedure

After obtaining informed consent, the participants were asked to complete the Humor Styles Questionnaire. The researcher provided clear instructions for filling out the questionnaire. Further, the participants were assured of the confidentiality of the research results. After receiving the filled-up questionnaires, the scoring was completed according to the guidelines prescribed by the test developers.

RESULTS AND DISCUSSION

The obtained data were statistically analyzed. Besides computing mean and standard deviation, a t-test was conducted to examine the differences in humor styles between agricultural and computer scientists. The results are presented in Table 1.

Table 1: Mean, SD, and CR of Agricultural and Computer Scientists on Humor Styles

Agricultural Scientists	**Mean**	35.00	34.44	31.01	28.22
	SD	5.62	5.49	5.04	6.06
Computer Scientists	**Mean**	37.99	37.80	27.52	27.53
	SD	5.78	4.62	5.81	5.59
CR		3.924	4.618	4.80	0.919
p		0.01	0.01	0.01	NS

***AF:** Affiliative Humor, **SE:** Self-enhancing Humor, **AG:** Aggressive Humor, **SD:** Self-defeating Humor*

Having a sense of humor is paramount for making headway in scientific discovery. It helps scientists avert setbacks and disappointments and fulfill their research goals. Beneficial humor, such as affiliative and self-enhancing humor, helps scientists build collaborative partnerships and alleviate harmful emotions (Ogurlu, 2015), consequently leading to favorable research outcomes. Conversely, hostile humor could hamper well-being and negatively influence research progress.

The comparison of humor styles between agricultural and computer scientists revealed fascinating differences in the extent and type of humor used. These variations could be attributed to the contrasting working conditions and degree of collaboration prevalent in agricultural and computer science research. Additionally, the research trajectories of agricultural and computer scientists show marked differences in the pace of change and competition levels, highlighting the need to embrace distinct humor styles to drive results and thrive at work.

The mean values of agricultural and computer scientists on affiliative humor were 35.00 and 37.99, respectively. The standard deviation computed for agricultural scientists on affiliative humor style remained at 5.62, while for computer scientists, it was 5.78. The critical ratio was 3.924, significant at a 0.01 confidence level. The result shows a significant difference

between computer scientists and agricultural scientists on affiliative humor. In other words, computer scientists are more likely to use affiliative humor when compared to their agricultural counterparts.

Joking about and utilizing humor to establish interpersonal bonds are examples of affiliative humor. People who favor affiliative humor relish engaging in lively banter and derive amusement in social situations. The happy repartee that characterizes affiliative humor aids in the formation of new interpersonal connections and the maintenance of existing ones (McCosker & Moran, 2012). It also minimizes disagreements, relieves stress, and improves relationship satisfaction (Martin, 2019), benefiting task accomplishment.

Computer scientists work at a blistering pace. Their work is inherently complex and volatile (Kallinikos, 2005). To achieve research goals, computer scientists must interact with others (Luna-Reyes, 2004), forge meaningful connections, and display esprit de corps. On the contrary, agricultural scientists spend considerable time conducting experiments in the field or the lab. Although agricultural scientists work with others, much of their time is spent conducting solo experiments, making cooperation less critical than it is for computer scientists. Affiliative humor helps computer scientists establish mutual connections (Wisse & Rietzschel, 2014) and deepen friendships. It reduces conflicts and expands interpersonal trust (Neves & Karagonlar, 2020), laying the groundwork for research progress.

Besides affiliative humor, self-enhancing humor helps scientists cope with complex and stressful situations and effectively conduct their research. Self-enhancing humor is a healthy form of humor where people seek fun in everyday situations. It refers to the ability to laugh at oneself without damaging one's self-esteem. Agricultural and computer scientists obtained mean scores of 34.44 and 37.80, respectively. The standard deviation for agricultural scientists was 5.49, and for computer scientists, it was 4.62. The critical ratio of 4.613 was significant at a 0.01 confidence level. The obtained CR value divulges significant differences in self-enhancing humor between computer scientists and agricultural scientists. In other words, computer scientists are more likely to use self-enhancing humor when compared to agricultural scientists.

The work of computer scientists is inundated by stiff competition (Fransman, 1993) and tremendous pressure. To progress and thrive, computer scientists must keep pace with technological growth and development. They should be aware of the latest developments in the field and continually upgrade their skills and expand their knowledge base to succeed in their line of work. Further, computer scientists often spend long hours at work, and their demanding workload (Sherry et al., 2017) puts additional strain on their health and functioning. On the other hand, the developments in agricultural research are gradual and tread a slower course. Moreover, agricultural researchers could afford to buy some time to eliminate extraneous influences while conducting research, lessening the overall burden and strain.

Self-enhancing humor allows computer scientists to handle stressful situations and enables them to stay agile and alert. It helps them reframe challenges and thrive in a highly demanding and complex work environment. Computer scientists can combat stress and cultivate creative thinking by using self-enhancing humor, which is crucial for their functioning. This might explain the statistically significant difference in self-enhancing humor between computer and agricultural scientists.

In addition to self-enhancing humor, the study examined the differences between computer and agricultural scientists on aggressive humor. The mean value of computer scientists on aggressive humor was 27.52, whereas, for agricultural scientists, it was 31.01. The dispersion score for computer scientists was 5.81, and for agricultural scientists, it was 5.04. The critical ratio of 4.80 was significant at a 0.01 confidence level. The result reveals a substantial difference between computer and agricultural scientists on aggressive humor. Computer scientists are less likely to use an aggressive humor style when compared to agricultural scientists.

Aggressive humor is a derogatory form of humor that includes harmful invectives, threats, ridicule, and mockery. It is negatively correlated with self-esteem (Yue et al., 2014). Aggressive humor dents interpersonal ties and reduces trust in relationships. It may interfere with work performance and hinder research progress when used excessively. The work of computer scientists demands a high degree of cooperation and teamwork. Computer scientists cannot afford to use aggressive humor if they desire to succeed and achieve their research goals.

On the other hand, agricultural scientists usually conduct independent research. Though they collaborate with others, this may not always be necessary. Agricultural scientists enjoy greater autonomy and have more control over their work. Therefore, using aggressive humor may not harm agricultural scientists as much as it harms computer scientists. As a result, computer scientists might have scored lower than agricultural scientists on aggressive humor.

Apart from examining aggressive humor, the study also considered the disparities in self-defeating humor between agricultural and computer scientists. The mean values of agricultural and computer scientists on self-defeating humor were 28.22 and 27.53, respectively. The standard deviation of agricultural scientists on self-defeating humor was 6.06, whereas it was found to be 5.59 for computer scientists. The critical ratio obtained was 0.919, which is statistically insignificant. From the results, it can be inferred that agricultural and computer scientists did not differ in self-defeating humor.

Self-defeating humor involves putting oneself down to generate laughter. While occasional use of self-defeating humor may lead to beneficial outcomes, disproportionate use could hamper self-esteem and severely affect psychological functioning. Scientists are usually highly accomplished professionals with superior educational credentials and academic achievements. They have greater self-confidence (Wonch et al., 2017) and self-worth. Self-defeating humor could be equally problematic for computer and agricultural scientists when used excessively. Thus, no statistically significant difference was noticed between computer and agricultural scientists on self-defeating humor.

CONCLUSION

The nature of the research reveals disparities in the extent and use of humor styles. The study highlights significant differences between computer and agricultural scientists in affiliative, self-enhancing, and aggressive humor styles. However, no difference was noticed in the self-defeating humor. Future researchers can study a larger sample and scrutinize the role of demographic variables on humor styles. They can examine how dissimilarities in the degree of collaboration, autonomy, and working situations contribute to individual differences in humor styles among scientists. This study has tremendous implications for research institutes and organizations. It helps HR departments understand how personality

variables such as humor may affect how scientists conduct their research. Organizations could use such information to design customized training and development interventions to stimulate high-quality research.

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Conflict of Interest

The author(s) declared no conflict of interest.

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