Science and Society: The Impact of Science Abuse on Social Life in Well’s *The Invisible Man*

Jumino Suhadi
English Literature Department, Faculty of Letters, Universitas Islam Sumatera Utara, Medan, Indonesia

Burhanuddin Arafah
English Department, Faculty of Cultural Sciences, Hasanuddin University, Makassar, Indonesia

Fatnia Paramitha Makatita
English Language Study, Postgraduate Program, Faculty of Cultural Sciences, Hasanuddin University, Makassar, Indonesia

Herawaty Abbas
English Department, Faculty of Cultural Sciences, Hasanuddin University, Makassar, Indonesia

Azhariah Nur B. Arafah
Faculty of Psychology, Universitas Gunadarma, Indonesia

Abstract—This article explores the relationship between science and society in *The Invisible Man* and elaborates the impact of science abuse on social life conveyed in H. G. Wells's *The Invisible Man*. This article uses the qualitative method and sociology of literature approach by Alan Swingewood and Diana Laurenson. The study result shows that the science abuse act committed by the main character later leads to social rejection and anger toward him. As the consequence, people hunted and murdered him.

Index Terms—science, abuse, society, *The Invisible Man*, Wells

I. INTRODUCTION

Advances in Science and Technology have changed the way of thinking in this era (Arafah & Hayim, 2019). Science development has a major impact on society by drastically changing how to live and how to believe. It continues to flow in all aspects of human life (Arafah et al., 2021). It makes human life easier and gives the chance to expand societal concerns such as education, and ethics; create culture; and improve human conditions (Burke et al., 1983, p.1). The rapid development of science made human life easier. Humans use science and technology in their daily lives. For example, the internet has become the most important medium of communication (Arafah & Hasyim, 2022). Social media has been inseparable from modern people where they use it to communicate and update their lives to each other without being limited by space and time, even taking part in democracy in the advanced situation (Hasjim et al., 2020; Arafah et al., 2021).

There are many reasons why few great scientific discoveries are kept to be classified and concealed to the public (Tudge, 1999). One of them is to minimize the chance of science abuse by unreliable people who might exploit and use it to harm others. Rozell (2020) in the preface of his book *Dangerous Science* argued that even some people believe scientists are free from the responsibility about how their discoveries are used, yet the potential use of the discovery can be difficult to predict (p. x). Tudge (1999) added that even though science should be value-free, the idea might be interrupted in harmful ways. When science knowledge flows into society and is influenced by certain values, on that occasion, science would appear dangerous. Without moral control, science would become hazardous and irresponsible (Hammond, 1979, p. 90).

Science is like a double-edged sword. It can invent a cure for a deathly disease but also can make the deathly disease itself. It is beneficial but also destructive, depending on who is using it. Because of its versatility, science also can be abused by certain people to fulfill their benefit. Science abuse is an act of manipulating science to meet personal interests and gain benefits, not only by a person but also can be in a massive scenario (Mooney, 2005, p. 1). At their best, scientist represents the best in humanity as an epitome of human intelligence and curiosity. However, the possibility of using their knowledge in the wrong way is always still there.

In the Victorian era, Science development grew rapidly and often adapted in Art and Literature (Gahatraj, 2021). Literature is a written piece of work containing aesthetic merits produced by authors, (Arafah et al., 2021) and often regarded as mere imagination (Ardiansah et al., 2019). People are spending their leisure time and enjoying the literary work for the scenes, plots, and characters (Sunardi et al., 2018). However literary work is also called a social product.
because it is reflecting on life at one period (Irmawati et al., 2020). It can be considered as a culturally valued text reflecting human life (Arafah et al., 2020). Literary works contain information on history, culture, and morals existing in the particular society (Andi & Arafah, 2017; Arafah & Kaharuddin, 2019). Therefore, Art and Literature can be used as reliable tools to promote an individual's responsibility and awareness (Arafah et al., 2021). The imitation of life reflection in literary works is usually identified by describing a piece of descriptions the author presented in form of text on pages, chapters, and parts of the novel (Purwaningsih et al., 2020). An author of a literary work also uses utterances on the text that have rich meaning and interpretation based on how the reader will interpret it to give more experience in reflecting the human real life while reading (Yulianti et al., 2022).

Science in Literature is classified in a different genre called Science Fiction or Sci-Fi. Science Fiction is regarded as Literature of Change because of its distinct characteristic (Gunn, 2020, p. xii). It has its fictional device called the novum. This fictional device contains the premise that inserts the significant difference between the fictional world and the real world (Roberts, 2016). There are countless works in this genre, Jules Verne and H. G. Wells are regarded as pioneers of Science Fiction.

This study explores the impact of science abuse on social life based on character performance in The Invisible Man, a novel of scientific romance written by H. G. Wells. It shows how a scientific discovery caused a negative reaction after it had been applied to society with harmful intentions. Regardless of the benefits human gained from science, it is important to acknowledge how scientific creativity can lead to destruction if it used non-ethical choices (Thomas, 2013, p. 42).

II. LITERATURE REVIEW

A. The Invisible Man: A Scientific Romance

The Invisible Man (1897) by H. G. Wells is one of the modern science privileged works that is honored in Victorian Literature (Gahatraj, 2021). The Invisible Man has given various film adaptations since it was released, The Invisible Man (1933), Abbott and Costello Meet the Invisible Man (1951), Memoirs of an Invisible Man (1992), Hollow Man (2009), and The Invisible Man (2020). The most obvious meaning of this novel is its moral warning about one's individual desire to go beyond human boundaries with science as a tool. The Invisible Man represents various perspectives about the possibilities of science and its place in society (Sirabian, 2001). Wells examines the impact of science on society through the eyes of various characters. It presents how science has been viewed from an essentially societal point of view (Singh, 1984).

The idea of invisibility alone is tempting enough to draw the attention and curiosity of readers. It is fascinating but also terrifying. Anyone with this ability could easily escape from people's notice and be free from social criticism and social pressure. Tons of benefits could be gained from invisibility. One who possessed this could easily go entering an unlocked room, eavesdrop on information, and secretly monitor people. Invisibility in literature itself exists for a long time ago. Some references come from Roman and Greek mythology. One of the earliest is "Ring of Gynges" by Plato (Williams, 2010).

The Invisible Man is Wells's third work. As a young man, he got a scholarship to the Royal College of Science in England. This formal education in science linked Wells's great works of science fiction (McDonell et al., 1982). He got a degree in zoology and published several scientific essays and educational journals aside from his science fiction works. Wells said that "he is simply a storyteller who happens to be a student of science" (McLean, 2009). McLean (2009) added that The Invisible Man is Wells's first scientific romance that shows "a recognizable society". The significance of the novel is more in exploring the potential complexities in the relationship between science and society rather than just focusing on the scientific aspect.

The Invisible Man tells about a brilliant scientist named Griffin, who made a discovery in physiology and made him invisible. He later turned into a megalomaniac driven by his fierce ambition and became a parable of the dangerous power of science. Griffin felt superior after obtaining such an ability and used it to create terror in society. With his ability, he committed several crimes such as robbery and violations, even casually murdering innocent people in the process of creating his "Reign of Terror." After being such a nuisance, he later being hunted by society and beaten to death.

The story implied that science is powerful and humans should be wise in the application. The Invisible Man portrays the image of a mad scientist who abuses his knowledge and uses it for his greed. Singh (1984) noted that "Wells affirms the scientist has a moral and social commitment which he cannot abdicate under any circumstance." Griffin remains the portrayal of a self-doomed scientist because of his selfishness.

B. Sociology of Literature by Alan Swingewood and Diana Laurenson

The sociological approach in the study of literature has a long history. This approach believed that literature is a social product because it cannot be separated from the fact that literature has a relation with society. This approach helps people to see how people interact and socialize in a community then see the relationship between a literary work with the social condition where the story was written (Fadillah et al., 2022). This theory has different approaches by many scholars, one of them is Alan Swingewood and Diana Laurenson. Alan Swingewood was born in 1938, in
Staffordshire, England. He was a lecturer in Sociology at the London School of Economics and Political Science. He had an impressive sociological career and has published several works on the sociology of literature, sociology theory, and culture. In early 1972, he co-authored a book with Diana Laurenson which became one of the most influential works in the Sociology of Literature approach (Jadhav, 2014).

Diana Laurenson was a lecturer at North East London Polytechnic. She has co-authored a book with Alan Swingewood entitled The Sociology of Literature. This book presents the approaches and methods to analyze literary works from the societal point of view (Swingewood & Laurenson, 1972).

Swingewood and Laurenson (1972) believe that the relationship between sociology and literature has been very close and inseparable. They share similar conspectus at the most basic level regardless of being in a quite distinct area of research. With the sociology approach, literature is concerned with man's world, including the adaptation, and the desire to change it. Thus, the literary works can be considered as a faithful attempt in re-creating the social world (Swingewood & Laurenson, 1972).

The book The Sociology of Literature has concluded three ways in approaching a literary work. The first one is the most popular approach that adopts the documentary aspects of literature. This approach considered literary works as the mirror of the age. The second one moves away to the production side, which deals with the author. This approach believes that the social situation of the author has a consequent impact on his work regarding style and content. The last is tracing how a literary work is received by a particular society in a specific period (Swingewood & Laurenson, 1972).

Sociology of Literature focuses on people's relations and society. It seeks the relationship between literary work and social reality from various perspectives and dimensions. Spector and Kitsuse (1977) state that literary works usually reveal situations or problems that occur in social life. Sociology of Literature describes reality and social fact by using language through the authors' imagination to deliver to the readers (Afiah et al., 2022). The existence of literature cannot be separated from the social reality which occurs in society.

Based on the elaboration of the theory, it can be concluded that analyzing the novel The Invisible Man by H. G. Wells from the perspective of sociology will reveal the social problems in the story.

III. METHODOLOGY

This research was conducted by using the descriptive qualitative method. The data were chosen from text and clustered by using library research. The writer collected data through the novel The Invisible Man written by H. G Wells as the primary source, and from books, articles, and other reliable material related to research. In analyzing data, the writer uses the sociology of literature by Laurenson and Swingewood to examine the impact of science abuse on social life as reflected in Wells's The Invisible Man.

IV. FINDINGS AND DISCUSSION

Most of Wells’s work portrays science-based stories such as time machines, alien invasion, and a mad scientist. His novel stands as one of the foundational works of science fiction (Sayeau, 2005). Well’s The Invisible Man explores the horrible potential that would happen if science fell into the wrong hand. In this novel, the main character named Griffin did a secret experiment and succeed transform himself into the Invisible Man. With the new ability he obtained from long research and countless experiments, he terrorized the entire village and became a social nuisance.

From the very first day after he got the invisibility, Griffin realized the extraordinary advantage he got. “My head was already teeming with plans of all the wild and wonderful things I had now impunity to do” (Wells, 2019, p. 142). This sentence implied Griffin's undesirable act he planned to do using his invisibility of him. Singh (1984) also sensed the growing urge of self-importance and ill intentions. Griffin committed several crimes, such as robbery, violations, terrorization, and murder. Science development is crucial, however, it needs to consider the implications on society (Sekar, 2018).

A. Social Rejection

This novel had a setting in rural Sussex, England, in the 1890s. The people there are mostly country folks who focus on their land and weather. Well's portrayal of those country folk comes off noisy, extraverted, opinionated, and loud. They are also close-minded and superstitious. Like any rural people who like gossip and preying around people's business, the villager of Iping is tremendously turned off by Griffin's elitism, and his suspicious secrecy. They despise his cold act and individualism. Well's portrays Iping as "a tight-knit community: everybody knows everybody else, and indeed everybody minds everybody’s business" (Cantor, 2010).

From the first day he arrived in Iping, and stayed in Mrs. Hall's inn, he already attracted the villager curiosity because of his grotesque appearance. Many speculations arise about his overtime. The stranger did not go to church, and indeed made no difference between Sunday and the irreligious day, even in costume. Communication with the other world beyond the village he had none (Wells, 2019, p. 30)

The early chapters of The Invisible Man contain the finest recognizable societal point of view. The story was narrated through the various perspectives of different individuals from Iping society (Bergonzi, 1961, p.116). As typical rural people in a small village, a religious matter is important to them. The church is considered as one of the socializing
places aside from bars and not seeing him in none makes them curious. Their curiosity starts growing into suspicion and they judge him silently. They observe his activities and openly discuss them in the bar. Most of the topic is about his occupation, wild speculations about Griffin spark here and there, from being a fugitive to a heretic. The entire village hated him, children feared him and called him Bogey Man (Wells, 2019, p. 32).

Because of the intense rumors circling the village, Mrs. Hall, the inn lady, provoked Griffin and complained directly to him. The complaint occurs because of the violations of social norms and failing to meet social expectations (Arafah & Kahraruddin, 2019). Griffin's hostile image and delayed accommodation pay made Mrs. Hall angry and demanded the answer. She provoked him to tell the truth about himself. He responded with “who I am or what I am. I’ll show you. By Heaven! I’ll show you” and started taking off his clothes (Wells, 2019, p. 51).

After stripping his disguised in front of people, Griffin presented himself as the Invisible Man. As the result, the culprit of robbery in Vicarage came to light, Griffin being chased out from Iping. His cover blew up, and the story about the Invisible Man came into the newspaper. People are aware of his ability. He can trespass, rob, and escape easily. “He could walk through a cordon of police officers as easy as me or you could give the slip to a blind man!” (Wells, 2019, p. 91). Griffin, who no longer welcomed in Iping, left the village and went to another village named Port Burdock. Griffin met his old colleague, Kemp, there and asked him to be his partner in crime and create “A Reign of Terror” together, but he got rejected by Kemp. Griffin’s had a self-concept as superior to humans. Self-concept is the view of someone to himself (Arafah et al., 2020). The negative self-concept he had produced negative energy in him led to hostile intentions and being a social nuisance that was rejected everywhere. He branded himself as "A Terror" and made it his identity, personality, and image (Hasyim et al., 2020).

B. Hunted by Society

Kemp is Griffin’s old college mate. McLean (2009) described Kemp as "much closer to adhering to Wells's ideal scientist as a hero and is the perfect anti-thesis to Griffin's egotistical ambitions" (p. 82). After hearing Griffin's story and his proposal to create “A Reign of Terror”, Kemp realized how dangerous Griffin could be.

"He is mad," said Kemp; "inhuman. He is purely selfish. He thinks of nothing but his advantage, his safety, I have listened to such a story this morning of brutal self-seeking. He has wounded men. He will kill them unless we can prevent him. He will create panic. Nothing can stop him. He is going out now-furious!"

“He must be caught,” said Adye.

“But how?” cried Kemp, and suddenly became full of ideas. “You must begin at once. You must set every available man to work; you must prevent his leaving this district. Once he gets away, he may go through the countryside as he will, killing and maiming. He dreams of a reign of terror! A reign terror, I tell you. You must set a watch on trains and roads and shipping. The garrison must help. You must wire for help.”

“I tell you, Adye, he is a danger, a disaster, unless he is pinned and secured, it is frightful to think of the things that may happen” (Wells, 2019, p. 177-178).

Through the dialog above, it shows the horror of Kemp, and he quickly joined hands with the police to stop the terror Griffin caused. The “inhuman” term identified Griffin as a social threat (Handcock, 2013). Kemp, as the ideal image of the scientist as a hero and also as society representative, took a lead to hunt Griffin down. The whole village noticed the existence of the Invisible Man. Police officers and civilians worked together and guard the village. All doors were locked so the Invisible Man cannot get rest or food, powdered glass has been spread to limit his movement, also closed the station and port to prevent his leaving. The hunt was a success and caught Griffin. However, because of the uncontrollable anger of the people, he was beaten to death by mass.

V. CONCLUSION

The Invisible Man has offered a fascinating glimpse of the potential relationship between science and society. Science often associated with goodwill can be dangerous on the wrong hand. Even though it should be value-free, the implications on society should be guided so it would not be harmful. Griffin’s brilliance and his scientific discovery were corrupted by his selfish ambition of abusing science. He was identified as a social nuisance and seen as a threat to society because of the chaos he bought. The result of scientific abuse is damaging society and the individual. This paper highlights the impact of science abuse on social life that will be a good example of promoting awareness in science application and the impact on society.

REFERENCES


© 2022 ACADEMY PUBLICATION


Jumino Suhadi, Ph.D. is a Professor of Linguistics at Master's Program in English Literature, Universitas Islam Sumatera Utara, Medan, Indonesia. He was graduated with Bachelor's Degree in English Literature from the Department of English Literature UISU Medan in 1978 and a Second Degree in 1982. He got his Master's Degree in Linguistics from the University of Delhi, India in 1986 and joined a short course in TESOL (Teaching English for Speakers of Other Languages) in Atlanta USA in 1993. He got his Ph.D. degree in Linguistics from Aligarh Muslim University India in 1999. He has written more than thirty scientific works published in several scientific journals and books. He has a lot of experience as the top leader in various positions. He held the position as the Second Assistant Dean of the Faculty of English Literature, UISU Medan (1987-1990), Dean of the Faculty of English Literature, UISU Medan (Three periods: 1990-1993, 1993-1994, and 2000-2003). In 1994 he was appointed as Second Assistant Rector of UISU Medan until 1995. In 2005 he was appointed Head of the Department of Master's Program in English Literature, until 2007 and was reappointed for the second period in 2010 until 2014. He was reappointed as the Dean of the Faculty for the fourth period in 2014 until 2018.

Burhanuddin Arafah obtained his Ph.D. degree in English (Australian) literature at the University of Newcastle Australia in 2003. He earned his Master's degree in American literature at Gadjah Mada University (UGM) Yogyakarta of Indonesia in 1995, and his Bachelor's degree in English literature at Hasanuddin University (UNHAS) in 1988. He is currently a full Professor in English literature at the English Literature Study Program, Faculty of Cultural Sciences of Hasanuddin University (UNHAS) Indonesia. He has published 4 books in English language and literature and more than 50 research articles ranked international journals published in the English language. He also has received 24 Intellectual Property Right Certificates from the Indonesian government. His areas of interest are English literature, language education, and cultural studies, and currently, he is actively involved at the National Accreditation Board-Higher Education, Ministry of Education and Culture of the Republic of Indonesia for his position as Assessor. Professor Arafah is currently a member of the Indonesian Literature Scholar Association, and Linguistics and Literature Association of Indonesia, as well as actively involved in the Indonesian Linguistics Society Association.

Fatnia Paramitha Makatita obtained both her bachelor's and master’s degrees in Hasanuddin University (UNHAS) Makassar of Indonesia. She completed her bachelor’s degree in English Literature, Faculty of Cultural Sciences UNHAS in 2016. She earned her master’s degree in English Language Studies Program, majoring in English Literature at the Postgraduate Program of the Faculty of Cultural Sciences. Her scholarly interest includes science and literature, sociology of literature, and Science Fiction novels. Her first publication is entitled The Case of Science Abuse: Science for Crime in Wells’s The Invisible Man published in the International Journal of Innovative Science and Research Technology in January 2022.

Herawaty Abbas got her Ph.D. at the University of Newcastle Australia in 2013, and her master's degrees in Gadjah Mada University (UGM) Yogyakarta of Indonesia in 1997 and Saint Mary's University Canada in 2001. She is currently an Associate Professor at the English Literature Study Program, Faculty of Cultural Sciences of Hasanuddin University Indonesia. Her doctorate thesis examines the potential dialogue between Australian and Buginese culture in terms of feminism. Her research interests are in feminist literature, children's literature, and Indigenous literature. She has published some articles in reputable international journals, such as Women Discrimination in Malaysia: Examining ‘The Gender Agenda’ from the Viewpoint of Lenore Manderson’s Women, Politics, and Change, published in Linguistica Antverpiensia, 2021 (1), 2204–2222; and The Values of Character Education in Pullman’s The Golden Compass, published in Multicultural Education, Volume 7, Issue 1, 2021. Dr. Abbas is currently a member of the Indonesian Literature Scholar Association, and the Indonesian Linguistics Society Association.

Azhariah Nur B. Arafah is currently a lecturer and Doctoral student in Psychology at Gunadarma University (UG) Jakarta of Indonesia. She obtained her MA degree in Clinical Psychology at Gadjah Mada University (UGM) Yogyakarta in 2020 and earned her Bachelor’s degree in Psychology at Hasanuddin University (UNHAS) Makassar in 2017. She wrote some research articles ranked International journals were published both in the English and Indonesian languages. Her areas of interest are Clinical Psychology, Social Psychology, and Interpersonal Relationships. She is also actively spreading awareness about Mental Health on social media (@awareliness).