

The creation of story authenticity — a case study of the Taiwanese fictional medical program “Wake Up”

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Science in TV dramas

Public representations of science and medicine are not just influenced by communication about actual scientific projects, findings, or explanations of medical problems. They are also shaped by novels, movies, or TV dramas that focus on science-related topics and include scientists or medical professionals as characters.

Behind the scenes of several successful movies stand many prominent scientists - for example, the physicists in *Interstellar* and the virologists in *Outbreak*. Collaboration between the scientific community and the entertainment industry should benefit both sides. From the angle of filmmakers, the involvement of scientific consultants enhances the legitimization of fictional reality in their movies and makes fictional scenarios more convincing. It is also good for marketing. From scientists' viewpoint, they see responding to requests from the entertainment industry as part of their "service" of science (Kirby, 2003b, p. 264). Scientific advisors assist filmmakers in constructing a scientific working environment and atmosphere in a film and create a "perceptual reality" scenario for the audience (Kirby, 2003a). Scientists also expect to contribute to a better public understanding of science by becoming involved with the pop culture industry (Kirby, 2003b).

This paper analyses the case of the popular Taiwanese fictional TV series “Wake Up” that centers on an anesthesiologist, which is the first Taiwanese drama focusing on this field of medicine. Plots of “Wake Up” revolve around the anesthesiologist who is pressured to take the blame for a patient’s death due to a rare anesthesia complication and subsequently suspended from his duty. However, the insurance agent who handles this death case has discovered that there is more to the cause of death and teams up with the anesthesiologist to investigate further. The fictional series reflects on overworked medical employees and corruption in a hospital system, which has attracted widespread public attention and raised discussions on the Internet and among the medical community.

The question is whether fiction mostly proliferates a contorted image of science and medicine, or whether it contributes to a more comprehensive image. Furthermore, we are interested in how the collaboration between medical consultants and production influences the creation of authenticity.

Methods

We explored the production of medical scenes in the TV series and in particular the important role played by the medical consultant. In addition, we focused on the producer's view of communicating science to the audience.

“Wake Up” encompasses 6 episodes and 222 different scenes for analysis. We conducted the analysis on whether the scenes are related to the presentation of medical knowledge or the social contexts of medicine. Three coders participated in the coding process, and the final coding results were based on a majority principle, which was 2 of the 3 coders sharing the same opinions. The inter-coder reliability (average pairwise percent agreement) is 91%.

We recorded and transcribed interviews with the producer and the medical consultant. The interview language was in Mandarin Chinese. The quotes were translated by the authors.

Results

Content analysis

Sixty-eight of the total 222 scenes are related to presenting medical knowledge or the social contexts of medicine. However, medical knowledge is only peripherally presented in the program, as about 10% of all scenes (n=21) are relevant. In 17 of the 21 scenes related to medical knowledge, mostly only medical technical terms (ETCO₂, Antropine, TCP, etc.) are mentioned without further explanations. We argue that jargon is crucial in creating a perceptual reality for the audience, even though the audience does not understand the medical terms.

A quarter of the total scenes relates to the social contexts of medicine (n=57). The story reveals the injustice of the management hierarchy in a hospital and displays ethical conflicts in clinical practice.

Interview with the producer

Our interview with the producer reveals that he was very concerned about the clinical authenticity of the scenes, not because he was genuinely interested in accuracy, but rather he expected authenticity to enhance the entertaining function of the fictional story by enhancing the audience's empathy.

"I actually didn't consider this program as a drama type of knowledge or of science. For me, it is a drama mentioning about clinical treatment and medical doctors. [...] The REALITY we pursue in drama, or I should put in this way, if this is a story about medical doctors, actors should act like doctors and the clinical plots should be approximately real. This is what I pursue. I didn't focus on how scientific this drama should be."

"[...] I just thought, I should produce this drama in this way so that the drama would attract the audience's attention."

The emphasis on the organizational context of medicine aims at anticipating the potential audience. The producer assumed that medical experience is relevant to the everyday life of many individuals. Plots that discuss unethical or illegal issues in a hospital may thus be easier to arouse an audience's empathetic responses.

"The script itself is already an excellent script, a script with great potential. However, we still felt there must be some other elements to add to this script; elements that reflect current events and might anticipate current market trends, so that our production would gain more public praise or public influence."

"Why did 'Wake Up' focus on the organizational problems in the medical system? Our medical system does have some problems. [...] I think, it (the problems presented in 'Wake Up') resonates among audiences, not because of how authentic this drama is."

The producer reported a good working relationship with the medical consultant. The producer respected the medical consultant and relied on the consultant's judgement in clinical scenes.

"Take anesthesiology as an example. Anesthesiologists may have different opinions about how to deal with a certain case. They may have different judgments and different clinical

approaches. I did not go to medical school and thus have no way to judge about right and wrong."

Interview with the medical consultant

The medical consultant for this drama is a practicing anesthesiologist himself. He was involved in the drama's production process in a variety of ways, including preparations, scripts, and post-production. The main function of the medical consultant was to ensure authenticity of the atmosphere in the clinical scenes. One way to ensure authenticity is to make the scripts and acting in the clinical plots correct and accurate.

"[I] checked the lines, [...] every medical term written in the scripts. [...] During the development of the plots, I was invited to a meeting with the writers. We met 3 or 4 times to prepare the draft and to designate leitmotifs in this drama."

"My involvement was to answer the inquiries from actors about how they should act under certain situations. I had meetings with actors and accompanied them during preparation. During filming, I avoided interfering with their acting."

As this drama centered on an anesthesiologist, whose work routine involves the monitoring and management of patients, the checking for accuracy in the drama included the text of the scripts, clinical treatments, and sound effects. For example, the consultant monitored whether the frequency of beeps indicating the heart rate corresponded to the information shown on the examination monitor.

The medical consultant perceived his important job as to connect different scenarios and to make the whole story correspond to medical logic. This checking of logic became even more crucial during post-production, especially for film editing, which assembles separate shots into a coherent sequence. Because the scenarios were shot separately, the medical logic may appear incoherent after film editing. The medical consultant had to help prevent such incoherence and provided advice to correct it.

"For example, a patient was not so seriously ill at the beginning; how could the patient in the end be operated on for brain surgery, and then bleeding erupted during this part. It is illogical. [...] If this had happened in reality, would anyone consider the anesthesiologist a good doctor? Right? If the patient becomes so ill at the end, there must be some hints of what might happen in the beginning. When they filmed one scenario, the film team was not aware about what was to come later in the story. [...] That is the reason that during the film editing phase I had to re-adjust several medical scenarios."

During the post-production phase, the medical consultant performed as a quality controller. He checked whether the actors and actresses' performances in the clinical plots were correct or proper.

"If actors and actresses did not act properly or correctly, especially the anesthesiologist, I did not let the scenes pass and would demand to film the scenes again. The team filmed several scenes again. [...] However, in several cases, one of the main actors did not have free time, and thus I could only compromise."

The medical consultant also reported a positive experience with the drama team. Respect seems to be crucial to this working experience. As the producer mentioned that he respects the medical

consultant's judgement in clinical scenes, the medical consultant stated his understanding that entertainment is the essence of the story.

Conclusion

Three main conclusions can be drawn from this study. First, instead of medical knowledge, this fictional program shows more organizational context of the medical system. Second, story producers showed an interest in scientific/medical authenticity, because they anticipated a positive effect on audience success. Third, while producers value medical accuracy only instrumentally as a means to increase the authenticity of the story, scientific advisors are genuinely interested in a correct "medical logic".

Popular culture has been seen as a factor of influencing the public's understanding of science. It is interesting to note that in our case, neither the producer nor the medical consultant mentioned about this aspect concerning public education. Both of them saw accuracy as being important, but not at the expense of entertaining the audience. Our findings show that certain proportions of scenes dealt with social contexts. We argue that fictional stories may help the audience better understand the organizational and ethical context of science or medicine.

It is still unclear what kinds of audience effects lead to scientific/medical authenticity. The popular TV series in the U.S. about Crime Scene Investigation (CSI) has prompted a debate about the existence of the "CSI effect" (cf. Schweitzer & Saks, 2007; Shelton, 2008; Willing, 2004). It assumes that the popularization of the forensic TV series results in an overestimation of the presence of scientific evidence by laypeople. In our case, authenticity was assumed to intensify the audience's anticipation.

To better understand the actual effects of scientific/medical authenticity in fiction, the next phase of our study will focus on audience reception.

Reference

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