Cine and Child: An analysis of the stereotypes present in the children's film *Frankenweenie*

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Abstract

Children's films are part of the universe and the daily lives of children. Far from constituting impartial and neutral in their representations, they are full of meanings and discourses that influence the constitution of the child, collaborate to the formation of contemporary identities of children, support new forms of representation and produce other cultures, establishing itself as authentic archetypes of social prestige in a society that focuses on culture media. This article aims to analyze, in the light of cultural studies, the film *Frankenweenie*. Produced by Disney, directed by Tim Burton and written by John August, *Frankenweenie* is a stop-motion animated film that tells the story of Victor Frankenstein, a small scientist who lost his dog Spark in a car accident and after de loss decides to resurrect the animal through a scientific experiment. The main objective of this article is to analyze how the processes related to the marking of gender identities and reinforcement of stereotypes associated with scientists and scientific practice are present in *Frankenweenie*. The methodology applied to this article will be the content analysis, a method characterized by using a set of techniques that attempt to describe and interpret communication contents. Through content analysis, it is expected to understand the

messages in the film and analyze it on a deeper level. This study will allow the crossing of discourses on science to the field of scientific divulgation, showing that cultural production can be excellent sources of research on cultural studies of science.

Introduction

Children's films have always exerted charm in a large number of people. It is, however, among children that they manifest their deepest and almost hypnotic effects. For Francisco (2006), due to the fact that they are part of kid's life since their early years, animated films exert a strong influence on children's thinking. Each day more engaging and well produced, films for children have become an investment of high financial value, characterized for its complex production level in all aspects that compose them: textual, audiovisual and special effects, which exploit the possibilities offered by technology.

Studies have pointed out that the children and adolescents' view of science receives a decisive influence of the media and even of spaces and channels dedicated to scientific divulgation, such as cartoons, films, books, magazines and TV program (KOSMINSKY; GIORDAN, 2002; OLIVEIRA, 2006; SIQUEIRA, 2006). Thus, the mass media has shown to be an important source for disseminating a range of stereotypical images about the personal and professional characteristics of scientists.

Regarding the use of films as means for communicating science, Smith (2006) emphasizes that:

> Animations can be a way to encourage children to become interested in a variety of subjects, including science, in a provocative, interesting and creative way. They can present the ethical challenges of the scientist profession and can accomplish the task of reconnecting science with life (SIQUEIRA, 2006, p.145).

Thinking about the potential and limitations of children's films in relation to scientific divulgation, this paper aims to analyze, under the light of cultural studies, how

occur the processes of labeling gender identities and reinforcing stereotypes of scientists and of the scientific practice in the children's film *Frankenweenie*.

Metodology

This paper is based on a qualitative approach and uses the methodology of content analysis, which according to Bardin (2008), is characterized by the selection, organization and interpretation of the content present in the messages studied. Thus, before the analysis, two categories were established for the corpus. The first one is related to gender identities while the second one covers the stereotypes of science and scientists. Through content analysis, one aims to infer knowledge about the messages of the feature film *Frankeenweenie* and study them on a deeper level, interpreting the meanings present in the film.

Results and Discussion

Produced by Disney, directed by Tim Burton and written by John August, *Frankeenweenie* is a remake of an eponymous short film, *live-action*, from 1984. Released in October 2012 in the United States, the feature film produced in stop motion tells the story of Victor Frankenstein, a little scientist who got depressed after losing his inseparable friend, the dog Sparky, which was hit by a car. Then, in a science class given by the visionary Mr. Rzykruski, the kid has the idea of resurrecting Sparky, through the use of electrical discharges from lightning. Victor conducts a science experiment to bring the animal back to life, but this feat has serious consequences for the population of New Holland.

Gender in *Frankenweenie*

The concept of gender emerged among feminist scholars to make opposition to the idea of essence, rejecting any explanation guided by biological determinism that could explain men and women's behaviour (ESCOSTEGUY, 2002). Notably, feminist criticism was directed to a naturalized, universal and unchanging view of behaviours, as if there were a naturally masculine or feminine essence marked in the subjectivity of each individual.

When analysing the film *Frankenweenie*, one notices an emotional and sexual division of labor between the characters. Rationality and objectivity are highlighted as masculine characteristics, while sensitivity and subjectivity are labelled as feminine traits. Thus, the roles of authority in the scientific field are attributed to men, while women are excluded from this universe.

The central character, the intelligent, creative and curious kid, who finds science solutions to his problems, is played by a boy. In addition, a male is chosen to give life to the science teacher. For woman, it is reserved the role of devoted mother, exemplar homemaker and good wife. The only woman who occupies a position in the labour market, and especially in the scientific universe, is the substitute science teacher. However, she is presented in a negative way. Characterized as bad scientist, she appears yelling at the students. In a dialogue with Mr. Rzykruski, Victor regrets that she will replace him, saying: “She is not even interested in science”. It seems that there is certain resistance of the media in receiving women as scientists (CRUZ, 2007).

The images and languages in children's movies have a performative effect on children, who will be drawing themselves as boys/men and girls/women based on socially appropriate values for each gender experience. It is in this fantasy universe carefully produced to seduce that social relations of gender are subtly proposed. According to Giroux (2005), children's movies inspire as cultural authority and legitimacy for teaching specific holes, values and ideas as more traditional places of learning.

Images of science and scientists

Studies suggest that students from kindergarten to higher education have inauthentic and unfavourable images of scientists and of scientific work (BARMAN, 1997). Men, disheveld, wearing white coats, egocentric and owners of an extraordinary intelligence, working in a laboratory with many visual resources, are the scientists’ stereotypes more commonly broadcasted by the mass media. Literature concerning the students’ perceptions of science suggests that stereotypes are generated and sustained by a wide range of socio-cultural agents, including schools, families, science museums and

also the media, through magazines, TV programs, movies and cartoons (SHARKAWY, 2012).

In *Frankenweenie*, these stereotypes are reinforced through the image of a little scientist named Victor Frankenstein, featured as a creative child, passionate for science, who prefers the solitary life, without the presence of friends or activities that involve social interaction. Stereotypes attributed to scientists are also easily identified in the image of the science teacher (Figure 1), represented as a lone man/scientist, egocentric, with the appearance of "mad". On the other hand, the teacher is characterized as a great scientist, endowed with superior intelligence and interested in stimulating the creativity of his students. It is based on an experiment conducted by Mr. Rzykruski that Victor finds a way to bring his dog Sparky back to life. The teacher tries to awaken children's taste for science through several strategies, including encouraging them to develop scientific experiments.

Figure 1. Teacher of Science Mr. Rzykruski

Source: Disclosure

When performing tests in an experiment for the science fair, one of the students of Mr. Rzykruski hurts. After the accident, the citizens of New Holland start to have a bad impression on the teacher's work. For them, children should not be encouraged to participate in experimental activities, but should agree with everything written in books and never interpellate their parents about "difficult to answer" questions. Dissatisfied

with the teacher, parents have a meeting to decide if he should stay in school. The discussion culminates in the resignation of Mr Rzykruski. Parental behavior indicates that the population of New Holland is resistant to science, an idea that becomes evident in an excerpt from the film in which the teacher states:

> *"Ladies and gentlemen, I think the confusion here is that you are all very ignorant. Is that the right word? Ignorant? I mean, stupid. Primitives. Uneducated. You do not have the talent to understand science, then, are afraid of her, like a dog afraid of thunder or brooms. For you, science is magic, spell, because you have small minds. ".*

In consonance with what is seen in *Frankenweenie,* Bucchi (2008) states that the traditional conception of public communication of science was born based on the idea that scientific issues were too complicated to be understood by the general public. Therefore, there was a need to establish a mediation between scientists and ordinary citizens. This task was handled by certain professionals and institutions, such as teachers and schools. It was up to them to 'translate' scientific content to the public, featured as layman and scientifically illiterate. In the 1980s, scholars of public communication of science have defined this approach as a deficit model.

In the movie, the teacher's speech reinforces the notion that the domain of scientific knowledge is not for everyone. He, the expert, stands as connoisseur of science and as responsible for opening the minds of ordinary people. Other citizens, specifically parents, are placed as laymen, unscientific, who do not support science because do not understand it.

In *Frankenweenie*, the image of that little attic that turns into a magical lab (Figure 2) relates to the film *Frankenstein*, 1931 (Figure 3), and passes the distinct impression of positivist science, able to make the impossible happen. In fact, the scenes hold the viewer, but reinforce the stereotypical image of scientific work connected to the laboratory. According to Pérez et al. (2001), with time, such deformations, which together express a naïve image, deeply away from what is supposed to be the

construction of knowledge and scientific work, will consolidate until become a stereotype socially accepted, which science education itself strengthens actively or passively.

In consonance, Christidou (2010) draws attention to the fact that the image the general public has about the scientific world is based more in science fiction than in "real science". If on one hand few scientists are known to the general public, on the other heroes like Frankenstein are very popular. As the author emphasizes, "these fictional heroes determine the images of science that are (re)produced and disseminated by the media in a much higher proportion than actual scientists" (CHRISTIDOU, 2010, p.3).

Figure 2. The *Frankenweenie* magical lab

Source: Disclosure

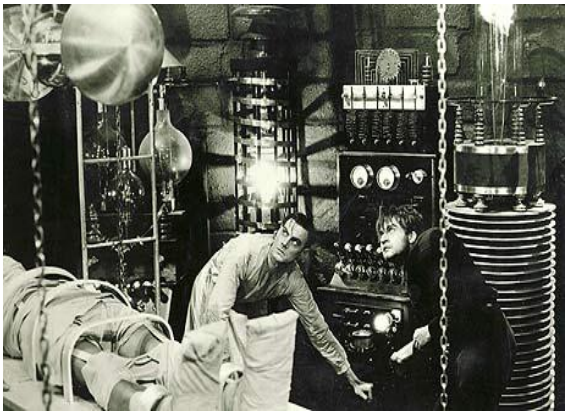

Figure 3. *Frankenstein's* lab

Source: Disclosure

The analysis of *Frankenweenie* movie also showed that science is presented as a result of the work of a single individual, when in fact, most of the major research results from the collective efforts of groups and institutions. At first, it is also shown as being linear. The successes and failures, common to scientific activity, are omitted. In the first attempt to bring Sparky back to life, Victor achieves the expected result.

Tim Burton also draws attention to the fact that any invention can always be used for good or for evil. For example, to find the successful experiment of Victor, his colleagues seek to imitate him, running the same experience with their deceased pets. However, reaching dangerous results (the emergence of monsters), threatening the lives of the people of New Holland. In the words of Professor Mr. Rzykruski, Burton gets the message that: "Science is not good or bad. It can be both. Therefore, you should always be careful. "

Conclusion

The analysis of film animation feature *Frankenweenie,* in light of cultural studies, allowed the intersection of discourses on science to the disclosure field, showing that cultural products can be excellent sources of research on cultural studies of science.

Children's movies are part of the universe and the daily lives of children. Far from constituting impartial and neutral in their representations, they are full of meanings and discourses that influence the establishment of infant subjects and collaborate to shape the identities of contemporary children, supporting new forms of representation and producing other cultures, constituting as authentic archetypes of social prestige in a society that focuses on culture media.

The movies can be exploited as a tool to show people a more realistic image of scientists and of their work and, at the same time, familiarizing them with scientific research. In a provocative and compelling way, can awaken children's interest in science. It is believed that, through the children's movies, it is possible to present the ethical challenges of scientific work and of scientist, and, approaching the science to everyday life. However, the film *Frankenweenie*, not unlike many other films, conveys to the public images that contribute to the labeling of gender identities and the reinforcement of stereotypes of scientists and the scientific activity.

In their narratives, gender differences are shown conventionally and conservatively. The role of women in different areas of society (in family, labor market and in science) remains bound to stereotypes of wife, mother and homemaker. The way they are represented in science is also not very different. They are treated as disinterested and inferior to the male scientist.

In relation to the image of the scientist, some stereotypes are maintained, reinforcing the imagery that scientists are: male, egocentric, with superior intelligence, work in laboratories that exhibit a magical scenario and where impossible things may happen. Thinking about these linked images to the scientist and how they are linked and reinforced by the media in general, here are some concerns. How would be possible to loosen up the representations, disclosures, cultures and languages given, commonly exploited by the media? How could the film, as well as the school, the scientific-cultural spaces and other communication channels, contribute to the formation of a scientific culture in society? Consideration should be given that the diffusion of unrealistic images of scientists and their work may result in detachment and lack of interest of young people in science and, to a greater or lesser extent, in scientific careers.

References

Bardin, L. (2008), Análise de conteúdo, Lisboa: Edições 70.

Barman, C. (1997). Students' views of scientists and science: Results from a national study, Science and Children, v.35, p.18–23.

Bucchi, M. (2008). Of deficits, deviations and dialogues: Theories of public communication of science. En: Bucchi, M.; Trench, B. (Eds.), Handbook of public communication of science and technology, p. 57-76, Londres, Nova York: Routledge.

Christidou, V. (2010), Greek students' images of scientific researchers. International School for Advanced Studies. Journal of Science Communication.

Cruz, J. O. (2007). Mulher na Ciência - Representação ou Ficção. Tese (Doutorado) – Comunicação – Universidade de São Paulo.

Escosteguy, A. C. (2002), A contribuição do olhar feminista, Revista InTexto, p.1-11, Porto Alegre.

Francisco, I. H. (2006). Repensando o Brincar e a Afetividade na Educação Infantil. Monografia (Conclusão de Curso) - Pedagogia, Universidade Estadual de Campinas.

Giroux, H. A. (2005), Memória e pedagogia no maravilhoso mundo da Disney. En: Silva, T. T. (Ed.), Alienígenas na sala de aula: uma introdução aos estudos culturais em educação, p.132-58, Petrópolis: Vozes.

Louro, G. (1997), Gênero, sexualidade e educação, Petrópolis: Vozes.

Kosminsky, L.; Giordan, M. (2002), Visões de Ciências e Sobre Cientistas entre Estudantes de Ensino Médio, Revista Química Nova na Escola, São Paulo, n.15, p.11-18.

Oliveira, B. J. (2006), Cinema e imaginário científico, Revista História, Ciências, Saúde, Rio de Janeiro, v.13, p.133-50.

Pérez, D. G. et al. (2001), Para uma imagem não deformada do trabalho científico, Ciência & Educação, Bauru, v.7, n.2, p.125-153.

Sabat, R. (2003). Gênero e sexualidade para consumo. En: Louro, G. L.; Neckel, J. F. Goellmer, S.V. Corpo, gênero e sexualidade: um debate contemporêneo na educação. Petrópolis: Vozes.

Schneider, D. (2004), The psychology of stereotyping, New York: The Guilford Press.

Scott, J. (1995), Gênero: uma categoria útil de análise histórica, Educação & Realidade,

Porto Alegre, v.20, p.71-100.

Sharkawy, A. (2012), Exploring the potential of using stories about diverse scientists and reflective activities to enrich primary students' images of scientists and scientific work, Culture Studuies of Science Education, v.7, p.307–340.

Siqueira, D. C. (2006), O cientista na animação televisiva: discurso, poder e representações sociais, Revista Em Questão, Porto Alegre, v.12, n.1, p.131-148.