

# Human cloning:

## A soap opera as a science communication tool



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## **Objective:**

- **To analyse the advantages and limitations of a soap opera as a tool for communicating issues related to human cloning**

## **Object of study:**

- **O clone (The clone)**
- **Soap opera broadcast from October 2001 to June 2002, by the channel with the largest audience in Brazil**
- **Audience of around 85 million people per day**
- **Soap opera with the highest audience in the last six years**
- **Currently broadcast on Telemundo, the Spanish-language television network that reaches 2.8 Million Hispanic households in the US (with English subtitles in most areas)**

## **Methodology:**

- **‘Exhaustive qualitative methodology’**: we recorded every chapter in videotape and identified every part related to science and scientists
- **Analysis of the recorded material aiming...**

**... to answer the following questions:**

- **What and how are scientific issues and genetic techniques being presented?**
- **What image of scientists is being transmitted?**
- **How are ethical and risk aspects being considered?**
- **To what extent is it possible to put in debate, in an appropriate way, such a controversial subject, involving so many different aspects, using a fanciful soap opera to discuss the topic?**
- **Finally... Is it possible that a soap opera like *O Clone* can be used as a significant science popularization tool?**

## The script

- **Starting point of the story: premature death of Diogo, one of the 18-years-old twin sons of Leônidas, a very rich man**
- **Dr. Albieri – close friend of Leônidas – decided to clone the brother, Lucas, arguing that Lucas's copy is Diogo**
- **Albieri produced the clone in a secret way: he didn't tell his supposed success to his lab partners, his friends or even to the matrix or to the woman who carried the baby – a poor black woman, to whom he guaranteed a very desired pregnancy**
- **After his birth, Leo, the clone, disappeared for many years**
- **He showed up when he was 18 years old, exactly the same age as when Diogo died**

## **Main character representing a scientist:**

- **Dr. Albieri, a very lonely person, unable to love a woman after losing his fiancée when he was young**
- **A geneticist and an owner of an artificial insemination clinic**
- **He clones animals (cows) in a farmer**



## **Scientific contents**

- **Tried to explain scientific issues such as cloning techniques**
- **To accomplish the explanations, in some situations the author adopted a didactic approach: scene in a classroom, where a character adopted a typical teacher behaviour writing at the blackboard**

**This strategy led to a fragmentation of the story and we can in a certain sense say that there were two soap operas in *O clone*:**

- (1) talks about science, with the image of the scientist drawing on the stereotypical caricature – a man with a white coat, immersed in his laboratory and far away from reality**
- (2) follows the usual rhythm of the soap operas, with forbidden romances, betrayals, etc**

## **Ethical aspects**

- **The ethical aspects of cloning human appeared since the first chapter of the soap opera**
- **Several different point of views are presented**
- **Ambiguity toward the point of view of Albieri (and other characters) toward human cloning ethical issues: Is it ethically acceptable cloning a human being? Acceptable or not, the fact is that in the soap opera a human being clone is made.**
- **Argument that ethical resistance against some new issues in science could be changed**
- **Can ethical issues stop science to progress?**

- **The ethical issues related to the secret scientific experiment were presented, including the fact that Dr. Albieri cloned a person without consulting him**
- **Dr. Albieri became a tormented man because of his secret. He feared that the clone would be defective; he feared also the way people would react when they were aware of his experiment**
- **In this case, *O clone* framed the dilemmas involved in cloning as individual issues, specifically centred on the scientist (Albieri), and did not give them a collective perspective**
- **The **risks** of cloning were considered in a very restrictive way and, in general, were limited to concerns about whether that specific clone would have physical defects**

## **Influence of genes in individual human behavioural**

- **Discussed several times, sometimes in a provocative and interesting way, stressing the existing scientific doubts on the subject**
- **On other hand, expressing a genetic determinism, Albieri states that there is a gene responsible for chemical dependence – a reference of drugs and alcoholism, another issue deeply discussed in the soap opera**

## **Influence of genes in individual human behavioural**

**Genetic memory also was explained to the public and the importance of social and cultural aspects stood out in this matter**

**But frequently the discussion was quite naïve:**

- Several scenes the matrix (the cloned person) and the clone scratched their right eyes at exactly the same time**
- The clone – as the matrix – enjoyed playing guitar, a portrayal that was possibly used as a tentative way of suggesting a hereditary tendency for musical aptness.**
- The clone was deeply fascinated by jade (the stone) and the life of Muslims (a clear reference to the matrix's forbidden love, one of the main themes throughout the soap opera)**

# The dilemmas of being a clone

Finally, when Leo found out that he was a clone, some dilemmas arise...

- **Paternity and maternity issues**
- **Existential problems because he considered himself only a copy and tried to define his own identity**
- **He felt quite uncomfortable with the way people looked at him after knowing he was a clone**
- **Leo had to face the doubt of how long he would remain alive making reference to the fact that it was discovered that Dolly the sheep was prematurely aging**

## Contemporaneous issues

Explored by the scriptwriter in the same moment that they were in fact happening:

- **Dolly the sheep prematurely aging (Leo had to face the doubt of how long he would remain alive)**
- **Announcements done by the American enterprise Advanced Cell Technologies that they succeeded in cloning embryos**
- **Statements done by Severino Antinori that he would be able to cloning human beings**

## Final comments

### *O clone* has big limitations...

- **Science and the scientific process are sometimes presented in a simplified way**
- **Scientists are shown several times as the usual stereotype of being male with a white coat, immersed in his laboratory and far away from reality**
- **The collective aspects of modern science are not stressed and more general factors related to the modern technology, such as economical and social issues, are also not considered**

## **But even with the recognized deficiencies...**

- ***O clone* allowed important ethical issues in contemporary science to be put in the public eye**
- **The genetic determinism issue was discussed several times stressing the existing scientific doubts on the subject**
- **This kind of TV soap opera can in fact be an interesting tool for evoking the curiosity of people toward cloning (or toward other important issues in modern science) stimulating them to look for further information**
- **In that sense, daring actions such as *O clone* could, in association with other tools and submitted to ongoing criticism and improvement, open new paths for science popularization activities**