

Bioethical Debates on Embryonic Stem Cell Research in Korean Newspapers

Bang-Ook Jun and Manjae Kim
(Kangnung National University)

Abstract

This paper analyzes chronological changes regarding embryonic stem cell bioethics, by using 1,625 newspaper article contents between January 1, 2000 and February 3, 2006. For this purpose, it first divided the whole period of analysis into eight phases according to major events.

Results show that the media portrayed more positive contents than negative ones over the time period. In terms of issues, it is noticed that egg donation, cloning, and religious concerns were the most frequently mentioned issues. Table 2 also shows that, in spite of some exceptions, issues generally became more specific in later phases than before.

It is also found out that Hwang was the most influential source of information except journalists. Considering journalists represent the group of reporters from various newspapers, it is hard to ignore Hwang's incomparable power over the media.

Although Hwang's scandal provided an opportunity for the Korean people to realize the importance of bioethics, the Korean society lost a series of opportunities to reach an agreement regarding bioethics. Considering these limitations, this paper suggests the cooperation between bioethicists and science reporters to avoid another scandal in the future.

1. Introduction

The embryonic stem cell research brought about the nationwide debates which the Korean society has never experienced before in the fields of scientific study. For last five years, diverse groups have expressed controversial opinions. By analyzing Korean newspaper articles, this paper aims to present dramatic chronological changes concerning embryonic stem cell bioethics.

2. Data

First, 371 articles containing three key words, "embryonic stem cell", "bioethics" or "controversy" were selected from the Korean Integrated News Database System between January 1, 2000 and February 3, 2006. After 140 irrelevant ones were excluded, the total of 231 articles were finalized for the analysis of this paper. For contents analysis, each article was further divided into specific contents, which resulted in the total of 1,625 cases.

3. Eight Phases

Phase I covers four years between 2000 and 2003. During this relatively long period, Korean government announced to enact the Bioethics Law which finally passed on December 29, 2003. This phase can be recognized as the initial stage of bioethical debates.

Phase II begins with Hwang's announcement that he and his team had created an embryonic stem cell from cloned human embryos in February 2004. Phases III is related with Nature's report that Hwang used eggs extracted from his two junior researchers in May 2004. In Phase IV, Hwang announced an even greater success of world's first establishment of patient-specific embryonic stem cells free of immune rejection from cloned human embryos in May 2005. Phases II, III, and IV, in general, can be considered as the stage that scientific successes overshadowed ethical questioning.

Phase V includes two sensational events, Gerald Schatten's surprising announcement that he had ceased his collaboration with Hwang on November 13, 2005 and Roh Sung-il's admittance that he had compensated donors of egg used in Hwang's research on November 21, 2005. Phase VI provides a turning moment to bioethical debates. For the shortest time period of three days among eight phases, PD Diary of MBC reported the possibility of Hwang's ethical misconduct on November 22. As a result, Hwang had to admit his ethical lapses on November 24. Phases V and VI can be seen as the stage of reigniting bioethical debates.

During Phase VII, it was revealed that Hwang's work was faked. Seoul National University set up a panel to investigate the allegation. Phase VIII represents relatively stabilized environment after the panel announced its initial finding on December 23. It was during these two phases that media attention moved from original concerns surrounding bioethical issues to research ethics.

4. Media Attitudes Toward Bioethical Debates

Table 1 shows radical changes of media attitudes toward bioethical debates. The media portrayed more negative arguments than positive ones in the first half of phases except phase III during which Hwang's ethical problems were seriously challenged by Nature for the first time. During phases V, VI and VII, however, favorable contents almost doubled their counterparts, which reflected Hwang's unveiled misconduct. Although this favorable environment was reversed in the final phase of VIII, it is hard to consider this change as a significant turnover considering the high percentage of neutral contents.

Table 1. Media Attitudes (in percent)

	Favorable	Unfavorable	Neutral	Total
Phase I	40 (16.8)	68 (28.6)	130 (54.6)	238 (100.0)

Phase II	27 (25.5)	36 (34.0)	42 (40.6)	106 (100.0)
Phase III	23 (33.8)	18 (26.5)	27 (39.7)	68 (100.0)
Phase IV	59 (29.6)	78 (39.2)	62 (31.2)	199 (100.0)
Phase V	89 (41.0)	26 (12.0)	102 (47.0)	217 (100.0)
Phase VI	174 (42.3)	91 (22.1)	146 (35.5)	411 (100.0)
Phase VII	93 (29.1)	38 (11.9)	189 (59.1)	320 (100.0)
Phase VIII	3 (4.5)	9 (13.6)	54 (81.8)	66 (100.0)

5. Major Issues of Eight Phases

Because original expressions were used not to distort diverse actors' own voices, too many issues were listed in each phase. In spite of presenting only a part of whole picture, Table 2 helps to understand major issues of eight phases.

Table 2. Top Three Issues

Top Three Issues
Phase I 1. respect for human embryo 2. danger of reproductive cloning 3. undermining human dignity
Phase II 1. danger of reproductive cloning 2. creation and destruction of life 3. therapeutic potential of research
Phase III 1. in-house egg donation 2. raising ethical problems 3. misunderstanding caused by bad communication
Phase IV 1. danger of reproductive cloning 2. creation and destruction of life 3. impossibility of reproductive cloning
Phase V 1. irregularities in egg collection 2. in-house egg donation 3. Schatten's accusation of Hwang's ethical improprieties
Phase VI 1. paid egg donation 2. in-house egg donation 3. insisting the legality of Hwang's research
Phase VII 1. legal enactment for ethical research

2. concern for delayed research due to ethical questioning
3. importance of keeping global standard
Phase VIII
1. coerced egg donation
2. considering adult stem cell research as an alternative 3. paid egg donation

Among the top three issues, egg donation related issues, such as in-house, paid and coerced egg donation and irregularities in egg collection, topped the list, while cloning related issues pointing out its danger and impossibility, and religious concerns for life, human dignity and human embryo were equally listed as the second.

Table 2 also shows that, in spite of some exceptions, issues generally became more specific in later phases than before. Not surprisingly, the top three issues reflected significant events which were already addressed in dividing eight phases.

6. Major actors

According to Table 3, journalists were naturally the primary source. The fact that Hwang occupied the second implies that the media faithfully delivered Hwang’s own words and failed to present balanced opinions. Particularly in Phases II and III, Hwang fully utilized the media as a way of promoting his research.

Whereas religious groups were frequently quoted in the first two and last phases presenting religious beliefs against embryonic stem cell research in general, bioethicists played an active role in Phases III, IV and VII during which Hwang' misconduct and fabrication emerged as major events. It should be also noticed that scientists were passive in asserting their ideas even during critical periods requiring high professionalism such as Phases VI and VII. From the fact that some scientists wrote newspaper articles without revealing their names, it can be partly inferred that they were afraid of attacks by Hwang's supporters.

Table 3. Top 10 Sources of Article Contents

	P-I	P-II	P-III	P-IV	P-V	P-VI	P-VII	P-VIII	Total
Journalists	30(12.6)	24(22.6)	19(27.9)	43(21.6)	100(46.1)	191(46.5)	74(23.1)	9(13.6)	490(30.2)
Hwang Woo-suk.	20(8.4)	33(31.1)	20(29.4)	35(17.6)	31(14.3)	19(4.6)	27(8.4)	5(7.6)	190(11.7)
Religious group	59(24.8)	22(20.8)	2(2.9)	20(10.1)	1(0.5)	8(1.9)	22(6.9)	18(27.3)	152(9.4)
Bioethicists	5(2.1)	-	8(11.8)	57(28.6)	7(3.2)	16(3.9)	36(11.3)	6(9.1)	135(8.3)
Scientists	43(18.1)	3(2.8)	1(1.5)	6(3.0)	15(6.9)	23(5.6)	29(9.1)	4(6.1)	126(7.8)
Foreign media	-	5(4.7)	16(23.5)	21(10.6)	39(18.0)	10(2.4)	20(6.3)	-	111(6.8)

Other Scholars	31(13.0)	-	1(1.5)	3(1.5)	-	-	68(21.3)	-	103(6.3)
Citizen's Group*	35(14.7)	17(16.0)	1(1.5)	8(4.0)	5(2.3)	1(0.2)	16(5.0)	4(6.1)	87(5.4)
Bureaucrats	9(3.8)	-	-	6(3.0)	14(6.5)	36(8.8)	6(1.9)	4(6.1)	75(4.6)
Roh Sung-il	-	-	-	-	1(0.5)	66(16.1)	-	-	67(4.1)
Others	6(2.5)	2(1.9)	-	-	4(1.8)	41(10.0)	22(6.9)	17(24.2)	89(5.5)
Total	238 (100.0)	106 (100.0)	68 (100.0)	199 (100.0)	217 (100.0)	411 (100.0)	320 (100.0)	66 (100.0)	1625 (100.0)

*: citizens' group also include women's group.

7. Conclusion

When the PD Diary of MBC first aired Hwang's scandal, it caused furious backlash in the Korean people. Although scientific evidences revealed his misconduct and fabrication, recent opinion polls still show the lay-audiences' consistent support for embryonic stem cell research.

There is no doubt that Korean embryonic stem cell research and Hwang's scandal provided an opportunity for the Korean people to realize the importance of bioethics related issues and the danger of unethical scientific achievement. Some results of analyses indicate positive changes in the Korean society regarding these issues. However, it is hard to deny that there are still some limitations.

As Table 3 suggests, the media clearly showed the lack of scientific professionalism. By heavily quoting Dr. Woo-Suk Hwang's sly statements, it was the media that contributed to portraying bioethical issues as obstacles for worldly recognized scientific achievements. During critical phases VI and VII, some science reporters openly supported Hwang on the ground that national interests were more important than scientific findings.

This study also indicates that the Korean society lost a series of opportunities to reach an agreement regarding bioethics. When the Nature first raised a question concerning the possibility of ethical violation in Phase III, the media did not properly deliver some bioethicists' insistence on thorough examination. Furthermore, the media attention was moved away from bioethical consideration to research ethics, as Hwang's misconduct and fabrication became a sensational scandal.

Considering current problems, the analyses of newspaper article contents emphasize the cooperation between bioethicists and science reporters to avoid another scandal in the future.