

SUMMARY OF ANALYSIS of BILL C-56  
ASSISTED HUMAN REPRODUCTION ACT  
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- The Bill erroneously or inadequately defines or completely fails to define several key terms. In the opinion of the author, if a term is not defined accurately in a piece of legislation, the real procedure accurately defined cannot be considered to be covered by the legislation.
- Many reproductive procedures are not mentioned and therefore fall outside the jurisdiction of the Bill.
- Once a scientific error is accepted as part of the language of a piece of legislation, the courts are not required to correct the error but simply to apply this as legal precedent.
- Also, although the issue of lack of accountability to parliament of the regulatory agency is not addressed here this presents very serious ethical problems.

The following is not a comprehensive list of erroneous, omitted or inadequate definitions, but the terms included here are among the most problematic.

**Omitted Definitions:**

**“Human Being”** - "Human" must include the human embryo, defined as beginning to exist from the beginning of penetration of the ovum by the sperm (sexual reproduction) or as the immediate product of a-sexual reproduction. the Canadian Criminal Code states that a human being does not come into existence until it has completely left the mother's body. The term human being is used throughout the Bill but nowhere is it defined.

**“Person”** - Some bioethicists feel that great apes and higher animals are “persons”.

**“Human person”**

**“Ethics”** - There are many different forms of ethics. To which one does the Bill adhere?

**“Ethically Acceptable/Unacceptable”** -What is acceptable varies depending on the definition of "ethics."

**“Human Mosaic”**- The bill does not include a definition of "mosaic." Thus mosaic research would not be covered by this Bill. Again, if the entity is not specified in the Bill there is no reason to think it will be prohibited.

**“Children”** - The Bill refers only to "children born." The child before birth is not included.

**“Free And Informed Consent”** - Consent can be neither free nor informed if accurate definitions are not given. This is of special importance to vulnerable persons.

**“Individuality”** - Some bioethicists make “delayed personhood” arguments which claim that before “X” biological marker event there is no human “individual” and therefore the human embryo or foetus has a reduced moral status.

**“Cloning”** - At least eight varieties and techniques are not mentioned and are therefore not prohibited. The one technique that is mentioned is inaccurately described.

### **Inaccurate Definitions:**

- “Clone”** - The only cloning procedure, Somatic Cell Nuclear Transfer (SCNT), referred to in the Bill is inaccurately defined. It is the opinion of the author that the real process of SCNT, accurately defined would therefore not be prohibited. The Bill therefore can be interpreted as prohibiting no form of human cloning at all.
- “Chimera”** - The definition given in the bill does not adequately distinguish between chimeras and hybrids. Other forms of human/non-human life are either omitted or mis-defined. These entities are often used in eugenic research.
- “Embryo”** - The definition given does not include a single-cell zygote. Again, no mention means no restrictions on research or other activities. The legislation also includes in the definition of “embryo,” a “totipotent” cell. A “totipotent” cell is a stem cell derived from an early embryo. To define the cell as an embryo is a gross scientific error.
- “In Vitro Embryo”** - The Bill excludes protection for the embryo in a frozen or otherwise suspended state of development.
- “Gene”** - The legislation does not distinguish between RNA nucleotide sequences and DNA nucleotide sequences. Both are used in cell research.
- “Genome”** - as defined in the Bill does not include any RNA, especially that of non-human entities such as bacteria and viruses in which RNA is the only kind of genetic material found and which are used in cell research.

### **Other Problems:**

- Transplanting a non-human clone into a human being is not prohibited.
- Transplanting a human clone into a non-human animal is not prohibited.
- No mention is made of transplanting human or non-human pronuclei into a human being, eg, into a single-cell zygote. This is another form of cloning.
- There is no mention of pronuclear research, which is commonly performed.
- An offer to do or to advertise to do anything prohibited by Bill C 56 is prohibited, but to do anything not explicitly mentioned in the bill is not prohibited.
- Retrieval of primitive germ-line cells, those cells that form the gametes, is possible from early embryos at about two and a half weeks to three weeks after fertilization. This is not prohibited.