

THE CONTRIBUTION OF PSALM 139:13-16 TO  
THE ISSUE OF THE ETHICS OF THE  
GENETIC ENGINEERING OF  
HUMANS

by

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Submitted in partial fulfillment of requirements  
for the degree of Master of Divinity in  
Grace Theological Seminary  
May 1980



Title: THE CONTRIBUTION OF PSALM 139:13-16 TO THE ISSUE  
OF THE GENETIC ENGINEERING OF HUMANS  
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Degree: Master of Divinity  
Date: April 1980  
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Much concern has been raised in recent decades over the alarming increase in the appearance of genetic abnormalities in humans. Several areas are being explored for possible solutions. One of these is the area of the genetic engineering of humans. However, various aspects and applications of this research raise serious moral and ethical questions. The best source of answers to these questions is the Word of God. Therefore the purpose of this paper is to examine Psalm 139:13-16 in order to discover what contribution this text makes toward answering the ethical and moral questions of this issue.

An analysis of Psalm 139:13-16 shows that God is intimately concerned for David's welfare. This is demonstrated by God's activity on behalf of David during his prenatal development. The text states that God was involved in David's prenatal development and that he was thoroughly acquainted with David in the embryonic state.

The analysis of this text shows that Psalm 139:13-16 makes two important contributions to the issue being considered. In the first place, it reveals the fact that this text supports the Traducian theory concerning the origin of the human soul. It does so by showing that human procreation is a process complete in itself. The text also supports the Traducian theory by promoting the unity of the person. The importance of this point is seen in the fact that Traducianism insists that embryos are persons from the earliest stages of development.

The second contribution is that this text gives information with respect to two important attitudes relative to this issue. The text teaches that one should have a high regard for the process of human procreation. This is true because it is a process whose source is God and which demonstrates God's power and wisdom. The text also demonstrates that God places a high value on human life.

With this in mind, general guidelines have been suggested for seven techniques of genetic engineering in the paper.

Accepted by the Faculty of Grace Theological Seminary  
in partial fulfillment of requirements for the degree  
Master of Divinity

  
Advisor



## TABLE OF CONTENTS

Chapter		
I.	INTRODUCTION . . . . .	1
	The Problem	
	A Proposed Solution	
	A Major Concern	
	The Purpose of this Paper	
	The Procedure	
	The Format	
II.	TECHNIQUES OF GENETIC ENGINEERING . . . . .	5
	Introduction	
	The Seven Techniques	
III.	AN EXEGETICAL ANALYSIS OF PSALM 139:13-16 . . . . .	10
	Introduction	
	God's Work in the Process of Fetal Development	
	God's Knowledge of David during Embryonic Development	
	Conclusion	
IV.	THEOLOGICAL CONSIDERATIONS CONCERNING THE ORIGIN OF THE HUMAN SOUL . . . . .	32
	Introduction	
	The Identification and Definition of Two Theories	
	An Evaluation of these Two Theories	
	The Contribution of Psalm 139:13-16 to the Issue	
	Conclusion	
V.	BIBLICAL ATTITUDES CONCERNING THE PROCESS OF HUMAN PROCREATION AND THE VALUE OF HUMAN LIFE . . . . .	42
	Introduction	
	A Correct Attitude with Respect to Human Procreation	

A Correct Attitude with Respect to the  
Value of Human Life  
Conclusion

VI.	ETHICAL CONSIDERATIONS WITH RESPECT TO THE TECHNIQUES OF GENETIC ENGINEERING . . . . .	49
	Basis for the Considerations Statement of the Considerations	
VII.	CONCLUSION . . . . .	54
	BIBLIOGRAPHY . . . . .	56

## CHAPTER I

### INTRODUCTION

#### The Problem

##### Theologically

Since the fall of man, many thousands of years ago, man has been suffering. The effects of the fall both on man and his environment have caused all kinds of hardship. All kinds of physical and mental abnormalities have caused this suffering.

##### Genetically

In recent decades the corruption of the gene pool has caused much alarm to geneticists. This has been caused by a higher survival rate of genetically abnormal people. As genetically abnormal people live longer, marry, and reproduce, an increasing number of their kind has become evident. One source says that about 250,000 defective births occur annually in the United States, about 20 per cent of which are known genetic causes. This source also states that more than 2,000 genetically distinct defects have been identified. Along with this, it was said that the annual cost of institutionalizing people with Downs Syndrome is \$1.7 billion. And finally, it was stated that about 5 million couples now need genetic

counseling.<sup>1</sup> One thing is certain, if the current trend is allowed to continue, there will be serious problems in the future.

### A Proposed Solution

Many look to the field of genetic engineering to provide a solution to this problem. There are two possible contributions that can be made by research in this field. First, some are trying to find ways of altering or controlling the process of human procreation in order to avoid the propagation of genetically abnormal people. Second, some are seeking ways of correcting genetic abnormalities both prenatally and postnatally.<sup>2</sup>

### A Major Concern

In recent years there has been a continuous eroding of absolute values in today's society. Moral decisions are becoming increasingly relative. Along this line Francis Schaeffer speaks of "'sociological law'; that is, law based only on what the majority of society thinks is in its best

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<sup>1</sup>Craig Ellison, "Engineering Humans," Christianity Today, January 19, 1979, p. 14.

<sup>2</sup>Ellison mentions some other areas of genetic research, but this paper is limited in scope to the ones listed; cf. Ellison, p. 14.

interests at a given moment,"<sup>3</sup> Society tends to make the expediency of the situation be the criteria for value judgments instead of an absolute moral standard. For this reason one must turn to the Bible for ethical guidelines in the area of the genetic engineering of humans. For only in the Bible will one find an absolute moral standard.

However, before any ethical decisions can be made in the realm of genetic engineering, two very important items must be considered. First, the value which God places on the normal process of human procreation and the value which God places on human life. The Biblical information concerning these two items provides the necessary background for the determination of ethical principles concerning the genetic engineering of humans. Without this necessary background information, there can be no true Biblical ethics in this area.

#### The Purpose of this Paper

With this in mind, it will be the purpose of this paper to determine the value which God places on the normal process of human procreation and on human life itself. Once this has been done, some ethical guidelines will be given for some of the specific areas of genetic engineering.

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<sup>3</sup>C. Everett Koop and Francis A. Schaeffer, Whatever Happened to the Human Race (hereinafter referred to as Human Race); (Old Tappan: Fleming H. Revell Company, 1979), p. 69.

### The Procedure

The procedure is to analyze Psalm 139:13-16 in order to answer this question: What contribution does this text make in the determination of ethical guidelines relative to the genetic engineering of humans? It will be shown that this text makes two important contributions toward developing Biblical ethics on this topic. First, in the realm of theology, this text contains some truth concerning the origin of the human soul. Secondly, it makes very clear the attitude that one ought to have concerning the normal process of human procreation and the value of human life.

### The Format

First to be considered are the techniques of genetic engineering. A thorough analysis of Psalm 139:13-16 will follow. Then the theological considerations will be discussed; followed by a discussion of this text's contribution to attitudes concerning the process of human procreation and the value of human life. Finally, some ethical considerations will be given for each of the techniques of genetic engineering being considered in this paper.

## CHAPTER II

### TECHNIQUES OF GENETIC ENGINEERING

#### Introduction

This paper will involve the discussion of seven techniques used in genetic engineering. In this chapter these seven techniques are identified, explained, and some of the areas of moral concern are also mentioned.

#### The Seven Techniques

##### Artificial Insemination

This process involves the mechanically assisted fertilization of the female egg cell. The sperm used can come either from the husband or another donor. The process can be done with or without surgery. There are several areas of moral concern involved here. Some object to the involvement of masturbation, which is, perhaps, the easiest way of procuring the needed sperm cells. Of even greater concern is the situation in which a donor provided the sperm instead of the husband. Would this be considered adultery?

##### Amniocentesis

This is a procedure whereby amniotic fluid is withdrawn from the uterus. Fetal cells are then removed and

examined. The purpose of this is to discover genetic abnormalities in the fetus. At this point in time, over 500 genetic deficiencies are detectable by this process.

Dr. Koop sees this as a search and destroy mission. He has this to say about its purpose, "Obviously, the whole system is to find out if there is something wrong with the fetus. And if the fetus is defective some parents will decide to abort it."<sup>4</sup> Craig Ellison points out that this is only a diagnostic device. If the fetus is defective, then a choice must be made between several options, one of which is abortion. However he also adds that at some point in the future, genetic surgery could be performed. It is also possible that other medical treatments such as fetal blood transfusions or fetal surgery may be performed.<sup>5</sup>

#### Genetic Surgery

This is the purest form of genetic engineering. Also known as recombinant DNA, it involves the changing of genome by means of special enzymes and bacterial plasmids. Eventually, direct manipulation of human genes may be able to free people from genetic defects. It may be possible, in the future, to correct such genetic defects as Tay-Sachs

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<sup>4</sup>C. Everett Koop, "Medical Ethics and the Stewardship of Life," Christianity Today, December 15, 1978, p. 8.

<sup>5</sup>Ellison, "Engineering Humans," p. 15.



disease, sickle cell anemia, hemophilia, diabetes, Down's Syndrome and epilepsy, by means of genetic surgery.<sup>6</sup>

### Ectogenesis

This is the fertilization and gestation of a fetus in a special incubator. A baby born in this way would be the true test-tube baby. Ellison states that spontaneously aborted fetuses have been kept alive for up to forty-eight hours in the stainless steel fetal incubator. He also says that the cost of developing ectogenesis would be generally prohibitive, though it could be used to help scientists develop more efficient fetal immunization and genetic engineering procedures by making the fetus more accessible to treatment.<sup>7</sup>

### In Vitro Fertilization

This is the process whereby an egg cell is removed from the ovary, fertilized in the laboratory, and returned to the uterus of a hormonally prepared female. The mother may or may not be the original donor of the egg. If she is married, her husband may or may not be the donor of the sperm. This kind of procedure would allow for babies when

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<sup>6</sup>For a good discussion of the complexity of this process and some of the problems and potentials see Charles R. Smith, "The Ethics of the Genetic Engineering of Humans," Grace Bible Conference Syllabus, Grace Theological Seminary, 1979, pp. 1, 2, 5.

<sup>7</sup>Ellison, "Engineering Humans," p. 15.

the fallopian tubes of the woman are blocked. However, there are some problems that are of moral concern. In the process, there may be many attempts before an embryo becomes implanted in the uterus. What about those that did not implant; is that the killing of persons? It should also be mentioned that in nature, about 30% of fertilized eggs implant.<sup>8</sup> Another consideration is the fact that when fertilization takes place outside of the body, the risk of chromosome abnormalities is five times as great in mice.<sup>9</sup> However this process is of great interest to geneticists, because one can have greater control over the product when the egg to be fertilized can be chosen. There are many possibilities here. A woman considered a high genetic risk could buy an egg cell from a genetically fit person and then have it fertilized by her husband's sperm. This embryo could then be implanted in her womb and she could then carry the child to full term, and give birth.

### Cloning

This involves removing an egg cell, substituting any adult body cell nucleus from the original nucleus, and implanting the renucleated egg in a prepared uterus. Cloning

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<sup>8</sup> Smith, "The Ethics of the Genetic Engineering of Humans," p. 4.

<sup>9</sup> June Goodfield, Playing God (New York: Random House, 1977), p. 56.

is asexual reproduction; no father is required. The offspring is genetically identical with the donor of the body cell. The offspring would be an identical twin of the donor with varying age. There has been no documented case of the successful cloning of a mammal yet. However, in his book In His Image: The Cloning of Man, David Rorvik claims that a successful attempt at the cloning of a human took place in December 1976.<sup>10</sup> This claim has been much disputed.

#### Embryonic Sex Change

It is now possible to determine the anatomical sex of the embryo. This can be done early in pregnancy by the blockage of hormonal changes. The result is an anatomical female fetus. However is there more to the sex of a person than mere physical appearance? Is it ethical to interfere in this area?

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<sup>10</sup>David Rorvik, In His Image: The Cloning of a Man (Philadelphia: Lippincott, 1978).

## CHAPTER III

### AN EXEGETICAL ANALYSIS OF PSALM 139:13-16

#### Introduction

##### Occasion

Upon receiving the great Messianic promises of 2 Samuel 7, David was so impressed with the grace, wisdom and love of God, that he expressed his reflections in the words of this Psalm.<sup>11</sup> Instead of being saddened over not being allowed to build God's house, he rejoices in a God who is so transcendent and yet so intimately acquainted with mere mortals who fear him.

##### Context

The message of the Psalm is that God's omniscience, omnipresence, and omnipotence are seen in and by means of David's life.

Verses 1-12 form a unit and show how God's omniscience and omnipresence are seen in David's life.<sup>12</sup> His omniscience is seen in that God knows all that there is to know about David. His omnipotence is seen in that God is

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<sup>11</sup> Joseph A. Alexander, The Psalms (Grand Rapids: Baker Book House, 1975), p. 538.

<sup>12</sup> Ibid.

always present with David. There is no place where David can go to escape God's presence.

Following this, David gives the reason for God's knowledge of him and presence with him in verses 13-16. This section begins with a כִּי. There seems to be some controversy over the function of this particle. Most of the commentators thought that this was causal. Edward J. Young sums up the majority of the opinions in this way. "This word introduces the reason why God is all knowing and also omnipresent, and that reason is found in the fact that God is the creator."<sup>13</sup> Mitchel Dahood disagrees on this point. He says that the particle is asseverative and not causal. However he goes on to make this very interesting comment, "The point of the affirmation seems to be that creation implies full knowledge of the person created. Hence Yaweh should know the innermost thoughts of the Psalmist."<sup>14</sup> Thus for the purpose of this paper it makes very little difference which is the correct view. In either case, the meaning conveyed is the fact that God has an intimate knowledge of David due to the fact that he was instrumental in David's creation.

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<sup>13</sup> Edward J. Young, Psalm 139 (London; Banner of Truth Trust, 1965), p. 15.

<sup>14</sup> Mitchel Dahood, Psalms, Vol. III (Garden City: Doubleday and Company, 1975), p. 292.

Hence in these verses there is a beautiful description of God's work in David during his development as an embryo. However, along with giving the reason for God's omniscience and omnipresence concerning him, David also demonstrates the omnipotence of God. For only an omnipotent God could do the things mentioned by David in these verses. Delitzsch makes a good point concerning this with these words:

The fact that man is manifest to God even to the very bottom of his nature, and in every place, is now confirmed from the origin of man. The development of the child in the womb was looked upon by the Israelitish chokma as one of the greatest mysteries, Ecclesiastes 11:5; and here the poet praises this coming into being as a marvellous work of the omniscient and omnipresent omnipotence of God.<sup>15</sup>

In this text David looks beyond the process of human procreation to its source. God is pictured as David's creator in that he designed and instituted the process.

#### God's Work in the Process of Fetal Development

For thou didst form my inward parts; thou didst weave me in my mother's womb. I will give thanks to thee, for I am fearfully and wonderfully made; wonderful are thy works, and my soul knows it very well (Ps. 139:13-14, NASB).

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<sup>15</sup>Frantz Delitzsch, The Psalms, Vol. III, trans. by Francis Bolton, Biblical Commentary on the Old Testament (Grand Rapids: Wm. B. Eerdmans Publishing Company, 1970), p. 349.

### God's Action in the Process

In verse 13 there are two verbs used by David which describe God's work in the process of fetal development.

The first verb to be mentioned comes from the root נָסַב. Brown, Driver, and Briggs say that this word has the primary meaning of to get or acquire. But in this context it is used of God as originating or creating and has the meaning of to form or create. They also point out that it is used in the same way in Genesis 14:19, 22, Deuteronomy 32:6, and Proverbs 8:22.<sup>16</sup> Some others who agree with this opinion are Lange,<sup>17</sup> Maclaren,<sup>18</sup> and Briggs.<sup>19</sup> However, some disagree; among them is Alexander. He feels that the word should be understood here in its primary sense. Thus he would translate it as "possesest."<sup>20</sup> He stresses the fact of God's ownership and control due to his creation. This fits in with the primary meaning of the word. However,

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<sup>16</sup>Francis Brown, S. R. Driver, C. A. Briggs, A Hebrew English Lexicon of the Old Testament (Oxford: Clarendon Press, 1976), p. 889.

<sup>17</sup>John Peter Lange, Psalms, trans. by Philip Schaff, Commentary on the Holy Scriptures (Grand Rapids: Zondervan Publishing House, n.d.), p. 647.

<sup>18</sup>Alexander Maclaren, "The Psalms," The Expositor's Bible, ed. by Robertson Nicoll (New York: Funk and Wagnalls Co., 1900), p. 387.

<sup>19</sup>C. A. Briggs, A Critical and Exegetical Commentary on the Book of Psalms, Vol. II (Edinburgh: T & T Clark, 1906), p. 496.

<sup>20</sup>Alexander, The Psalms, p. 540.

in the context, David is putting much stress on the creative activity of God. Therefore this author has to agree with the others who translate this verb as formed.

The second verb used here by David comes from the root  $\gamma\text{וּב}$ . As with the previous verb, there is a difference of opinion as to the precise meaning of this verb in context. In their lexicon, Brown, Driver, and Briggs claim that in this context, the term means "to weave together."<sup>21</sup> Several of the commentaries consulted supported this view among whom are Scroggie,<sup>22</sup> Maclaren,<sup>23</sup> and Lange.<sup>24</sup> Spurgeon gives a good summary of this view as well as showing the basis for disagreement, with these words:

Thou hast woven me in my mother's womb--meaning that God had put his (David's) parts together, as one who weaves cloth, or who makes a basket. The original word also has the idea of protecting, as in a booth or hut, woven or knit together,--to wit, of boughs and branches.<sup>25</sup>

As Spurgeon mentioned, this word can also mean to cover in the sense of protecting. Some authors claim support

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<sup>21</sup>Brown, Driver, Briggs, Lexicon, p. 697.

<sup>22</sup>W. Graham Scroggie, The Psalms, Vol. IV (London: Pickering and Inglis Ltd., 1948), p. 52.

<sup>23</sup>Maclaren, "The Psalms," p. 387.

<sup>24</sup>Lange, Psalms, p. 647.

<sup>25</sup>C. H. Spurgeon, The Treasury of David, Vol. VII (New York: Funk and Wagnalls Company, n.d.), pp. 241-42.



from the LXX, Vulgate, and Peshitta for this view.<sup>26</sup>

Alexander suggests that, "The sense of weaving, which is given to the last verb by some modern writers, rests on a mere etymological deduction, and has no foundation either in tradition or usage."<sup>27</sup> Dahood agrees and translates the word, "have sheltered me."<sup>28</sup> He says that this makes a good parallel to the previous verb (you created) and, "turns the verse into an affirmation of the two doctrines of creation and providence."<sup>29</sup>

This author feels that there are convincing arguments for both sides. However, the view which translates the verb to weave, is the one preferred at this point. The word is used in the same way in Job 10:11. Also, the stress in the context seems to be on God's creative work in David's embryonic development. This term is parallel to the previous verb, to create, and is expressing the same idea. It is also interesting to note some of the other words that come from the same root. The word 70 is a masculine noun meaning

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<sup>26</sup> cf. Briggs, Psalms, p. 496, and E. W. Hengstenberg, Commentary on the Psalms, Vol. III, trans. by John Thompson Leith and Patrick Fairbairn (Edinburg: T & T Clark, 1854), p. 500.

<sup>27</sup> Alexander, The Psalms, p. 540.

<sup>28</sup> Dahood, Psalms, p. 292.

<sup>29</sup> Ibid.

"throng," and has in mind an interwoven mass.<sup>30</sup> The word הכס is a feminine noun meaning "booth" with the idea of "interwoven boughs."<sup>31</sup>

However, even in these cases, it is admitted that the idea of a covering or protection could be seen also. It could easily go either way; however, in the context of verses 13-16 the emphasis is on God's creative working and therefore would be an indication that the verb should be understood as to weave. Yet, let it again be said that either view would support the purpose of this paper. To translate the verb as to weave would show God's involvement in the process of human procreation. To translate it as to cover would show God's intense interest in the fetus. In any case, the point is made that God is involved in fetal development and thus is very much interested in the embryo.

Thus it can be seen that God was busily engaged in the fetal development of David. This was expressed by David with the verbs to form and to weave.

#### The Object of God's Action in the Process

In the text David says that God formed "my inward parts," and that he wove "me."

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<sup>30</sup> Brown, Driver, Briggs, Lexicon, p. 697.

<sup>31</sup> Ibid.

The word used here for "inward parts," is the word כְּלִיָּה, which literally means "kidneys."<sup>32</sup> In this text the word is a figure of the seat of man's emotion and affection. This is brought out especially well in other places where the word is used. In Job 19:27 it is rendered "my heart faints within me." In Proverbs 23:16 it is translated "my innermost being will rejoice." Also in Psalm 73:2 it reads "my heart was embittered." Thus by its usage it can be seen to refer to the seat of man's emotions. One other source added on to this and said that in the Psalm 139 text it was a figure of "the organ of man's consciousness."<sup>33</sup> Probably both are true. For both the emotions and affections of man, and his self-consciousness are the traits which distinguish him and set him apart from the animal world. They are the characteristics which make man a person. Thus it is this quality of man, his personhood, to which David is referring. This part of man was formed by God.

The personal pronoun used by David in the phrase "thou didst weave me," is a pronominal suffix on the verb with the form being חִסְכֵנִי. The significance here is in the parallel construction. A personal pronoun is in parallel form to a word which is a figure of David's innermost being.

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<sup>32</sup>Ibid., p. 480.

<sup>33</sup>L. C. Allen, "Faith on Trial: An Analysis of Psalm 139," Vox Evangelica, 1977, p. 13.

This author understands that David is trying to communicate the fact that a person was being worked on by God in the womb, and that David is stressing the unity of his person. Hence the word used for inward parts is a reference to those things characteristic of David which make him a unique individual.

#### The Location of the Action in the Process

David gives the location of this marvelous work with the words בִּרְחֵם אִמִּי, meaning in my mother's womb. This is important because some of the techniques of genetic engineering either take place outside the womb or else eliminate the use of the mother's womb altogether. This text points out that in the normal process of human procreation the location of the activity is in the mother's womb.

There is a minor textual problem that should be mentioned here, for it could help to determine the correct meaning of the word סָכַן in this text. In the apparatus of Biblia Hebraica Stuttgartensia, it can be noted that the LXX and the Syriac version have a different spelling for the word בִּרְחֵם.<sup>34</sup> They prefer a מָן prefix to the prefixed preposition כֹּ of the Masoretic Text. Many who prefer the LXX reading also understand סָכַן to mean to cover, with a stress on protecting. The message of these words would center

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<sup>34</sup>K. Elliger, W. Rudolph, ed., Biblia Hebraica Stuttgartensia (Stuttgart: Deutsche Bibelstiftung, 1977), p. 1218.

around God's protection from the time of being in the womb until the present.<sup>35</sup> However, this author prefers the reading of the Masoretic Text with the emphasis on God's creative activity within the mother's womb.

#### David's Response to God's Work in the Process

"I will give thanks to thee, for I am fearfully and wonderfully made; wonderful are thy works, and my soul knows it very well" (Ps. 139:14 NASV).

This verse is difficult to understand in the original and has caused some controversy. Yet, once the message has been understood, it gives some valuable insights into the nature and uniqueness of man.

David begins this verse with an ascription of praise to his God. He uses a Hiphil form of the verb נָתַן, which in the qal stem means to throw or to cast.<sup>36</sup> But in the Hiphil stem it means to give thanks or to confess.<sup>37</sup> Here it has in mind giving thanks as an act of worship. From this word it can be seen that David is extremely thankful for something. Upon discovering the reason for David's thanks, the intensity of his thanksgiving can be easily understood.

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<sup>35</sup>Dahood, Psalms, p. 292.

<sup>36</sup>Brown, Driver and Briggs, Lexicon, p. 392.

<sup>37</sup>Ibid.

David then goes on to give the reason for his thanksgiving. He does so by making two statements about man, preceeded by the construction על כי, which here functions as a causal conjunction, and indicates the reason for David's praise.<sup>38</sup>

David's first statement, following the conjunction, is expressed in these words נוראֹת נפְּלִיֹּתִי. These are both in the niph'al stem. The word נפְּלִיֹּתִי is the finite verb from the root פלה, meaning to be separate, distinct, or wonderful (in the sense of being distinct).<sup>39</sup> The word נוראֹת is a participle from the root ירא meaning to fear.<sup>40</sup> In this text the participle is used adverbally and modifies the finite verb.<sup>41</sup> So that David is saying that he was made to be fearfully distinct.<sup>42</sup>

So in the first place, David is thankful because he was made to be distinct in a way that is awe-inspiring. Maclaren has correctly interpreted this statement when he says that, "wondrously made probably means here 'selected'

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<sup>38</sup> Ibid., p. 758.

<sup>39</sup> Ibid., p. 811.

<sup>40</sup> Ibid., p. 431.

<sup>41</sup> cf. Alexander, The Psalms, p. 540, and Hengstenberg, Psalms, p. 500.

<sup>42</sup> This author does not agree with the NASB translation because it does not accurately represent the finite verb. It translates the finite verb as an adverb.

or 'distinguished,' and represents man as the 'chef d'oeuvre' of the Divine Artificer."<sup>43</sup>

One other item that should be mentioned here is that there is a textual problem. Again the apparatus of Biblia Hebraica Stuttgartensia shows that the LXX and Syriac favor an ם suffix on the verb פלל, instead of the ך suffix of the Masoretic Text.<sup>44</sup> This would change the translation from "I am made fearfully distinct," to "you have made yourself fearfully distinct." This makes God the subject instead of David.<sup>45</sup> Now while this would be a true statement about God, this author thinks it best to stick to the Masoretic Text and the emphasis that it contains.

The second statement that David makes, in which he expresses the reason for his thanksgiving, is also composed of two words. The first word נפלאים, is a niph'al participle, masculine plural from the root פלא. This word means "to be surpassing, extraordinary, or wonderful," and here is used with reference to God's works.<sup>46</sup> The second word מעשיו is a masculine plural noun in the construct form from the noun מעשה. The word means deed or work and is here used of the

<sup>43</sup>Maclaren, "The Psalms," p. 387.

<sup>44</sup>Elliger, Rudolph, Biblia Hebraica Stuttgartensia, p. 1218.

<sup>45</sup>cf. Dahood, Psalms, p. 292.

<sup>46</sup>Brown, Driver and Briggs, Lexicon, p. 810.

"works of God."<sup>47</sup> This is a reference to God's involvement in the creation of man.

Now in these two statements, David not only states his reasons for giving thanks to God, he also gives some amazing information about man, who is the creation of God.

In the first place, he says that man was made to be fearfully distinct, i.e., there is something about man that makes him distinct from animals. Whatever it is that makes him distinct is awe-inspiring.

The second thing that he says about man is that he is surpassing or extraordinary; in this sense he is wonderful. When compared with the animals, man is considered surpassing and extraordinary.

#### God's Knowledge of David when a Developing Embryo

My frame was not hidden from thee, when I was made in secret, and skillfully wrought in the depths of the earth. Thine eyes have seen by unformed substance; and in thy book they were all written, the days that were ordained for me, when as yet there was not one of them (Ps. 139:15-16 NASB).

These verses tell three things about David which God saw while David was a developing embryo.

#### David's Material Being Seen by God

The fact that David's material being was seen by God, while he was a developing embryo, is seen in these

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<sup>47</sup>Ibid., p. 795.



words: "My frame was not hidden from thee, when I was made in secret, and skillfully wrought in the depths of the earth" (Ps. 139:15).

The reference to David's material being comes from the word *עצמי*, which is a masculine, plural noun from the word *עצם*, which means "might or bones."<sup>48</sup> Here the word is used collectively and means "my frame."<sup>49</sup> The idea here is that the skeletal frame, with the addition of sinews, are the source of strength to the body.<sup>50</sup> Hence this would be a very important consideration with respect to the physical makeup. One needs to be careful here lest an unwarranted dichotomy be made between the immaterial and material parts of David. Reference was made in verse 13 to David's "inward parts." It was said that this refers to the seat of his emotions and to the organ of his self-consciousness. It was a reference to that which made David a person. Now David makes reference to his "frame," which is a reference to the source of strength of his physical being. Some even take it a bit further to say that, in reality, this is a reference to the sum total of elements of his being.<sup>51</sup> However one interprets this, it is wise to avoid extremes

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<sup>48</sup>Ibid., p. 782.      <sup>49</sup>Ibid.

<sup>50</sup>Hengstenberg, Psalms, p. 500.

<sup>51</sup>cf. Delitzsch, The Psalms, p. 349, and Alexander, The Psalms, p. 540.

that would destroy the unity of David's person. For David expresses beautifully the unity of the person in these verses. In any one case he may be referring to the material or immaterial aspect of man. But in either case he parallels these expressions with personal pronouns to keep a proper balance and, in this way, shows the unity of the person.

David says that his frame was not hidden from God. The verb here is a niph'al perfect of the root כָּתַר, which means to be hidden.<sup>52</sup> This author feels that the use of the niph'al is significant. This places the verb in the passive. David is not saying that his frame was visible to God because he did all he could to keep it that way. Instead this condition was so because God wanted it that way. This is true because God was David's creator. However, this author believes that this shows that God had a vital interest in David even during the days when he was a developing embryo.

David then uses two phrases to tell when it was that his frame was not hidden from God. These two phrases are introduced by the relative pronoun אֲשֶׁר, which is used here adverbally to indicate the time period during which the main action took place.<sup>53</sup>

First, David says that his frame was not hidden when he was made in secret. The verb translated was made, is the

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<sup>52</sup> Brown, Driver and Briggs, Lexicon, p. 470.

<sup>53</sup> Alexander, The Psalms, p. 540.

pual stem of the root עשה, which means "to make or do."<sup>54</sup>

The word translated in secret is סתר. This comes from the word סתר, which means covering, hiding place, secrecy. With the addition of the prefixed preposition ב, it has the idea of "in a secret place," which in this case is the mother's womb.<sup>55</sup>

Secondly, David says that his frame was not hidden when he was variegated or skillfully woven in the lowest places of the earth.

The verb translated skillfully woven is also in the pual stem. It comes from the root רקם, meaning "to variegate."<sup>56</sup> There has been a difference of opinion as to the meaning of this word in this text. Many understand the significance of this word here to imply a comparison between woven cloth of variegated colors to the formation of the human fetus.<sup>57</sup> Alexander gives a good representation of this opinion in this statement: "Embroidered: a bold but beautiful expression for the complicated tissue of the human frame, in which so many and such various threads are curiously interwoven."<sup>58</sup> Dahood disagrees with this

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<sup>54</sup>Brown, Driver, and Briggs, Lexicon, p. 795.

<sup>55</sup>Ibid., p. 712.      <sup>56</sup>Ibid., p. 955.

<sup>57</sup>cf., Lange, Psalms, p. 647, Delitzsch, The Psalms, p. 349, Alexander, The Psalms, p. 540, and Maclaren, The Psalms, p. 384.

<sup>58</sup>Alexander, The Psalms, p. 540.

interpretation. He does admit that the metaphor is understood as cloth of variegated colors, but he still disagrees because the ancient versions do not reflect this usage, and because no one has been able to explain satisfactorily the comparison of the human body with multicolor cloth.<sup>59</sup>

At this point a quote by Perowne is appropriate to show some of the confusion in this area;

The verb is used of some kind of part-coloured work, but whether woven or embroidered is doubtful. Gesenius, who discusses the question at large in his Thesaurus, decides for embroidery. On the other hand, it has been denied by Hartmann that the Hebrews possessed this art.<sup>60</sup>

This author tends to agree with the position that understands a metaphor used here comparing a piece of woven cloth with the development of an embryo. When the lexical meaning of the word is considered in the context of the Masoretic Text, this seems to be the best interpretation.

It was mentioned that both of the verbs in these two phrases are in the pual stem. The question that comes to mind here is this: what is the significance of the use of the pual stem with these two verbs? Both Gesenius and Davidson agree that the pual is the passive of the piel. With transitive and intransitive verbs it serves to intensify. It can also denote repetition, as well as be

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<sup>59</sup> Dahood, Psalms, p. 295.

<sup>60</sup> J. J. Stewart Perowne, The Book of Psalms, Vol. II (Boston: Bradley & Woodruff, n.d.), p. 441.

causative and factitive.<sup>61</sup> It seems to this author that, in general, the significance is to intensify the action of these verbs.

The use of the pual here shows that there is something special about the manner in which David came into being.

There were two phrases, translated from the Hebrew, in parallel construction which told where this activity took place. The phrases are in secret and in the lowest places of the earth. Both of these phrases refer to the womb. By means of this comparison, David is communicating the fact that the womb is a concealed and dark place. The same kind of comparison takes place in Job when he said, "Naked I came from my mother's womb, and naked I shall return there" (Job 1:21).<sup>62</sup> In any case this text is not teaching the pre-existence of either body or soul in sheol, as suggested by Dahood.<sup>63</sup>

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<sup>61</sup>Edward C. Mitchell and Ira M. Price, Gesenius' Hebrew Grammar, 2nd ed. (Boston: Bradley & Woodruff, 1895), pp. 132-33, and A. B. Davidson, An Introductory Hebrew Grammar, 26th ed., revised by John Mauchline (Edinburgh: T & T Clark, 1966), p. 106.

<sup>62</sup>cf. Hengstenberg, Psalms, p. 501, Lange, Psalms, p. 648, Maclaren, Psalms, p. 388, and Perowne, Psalms, p. 441.

<sup>63</sup>Dahood, Psalms, p. 295.

### David's Developing Being Seen by God

David reveals that his developing being was seen by God in this statement, "Thine eyes have seen mine unformed substance" (Ps. 139:16a).

The word translated "unformed substance" is the masculine noun  $\text{בלל}$  meaning "embryo."<sup>64</sup> In this verse it appears with a first, common, singular suffix and is thus rendered, "my unformed substance."<sup>65</sup> This noun comes from the verb root  $\text{בלל}$ , which means to wrap up, fold, fold together.<sup>66</sup> By the use of the word an embryo is pictured as a developing (unformed), ball of mass.<sup>67</sup> It was an exciting thing for David to realize that God saw him even when he was but a developing embryo. This demonstrates God's loving care which was present with David while in his mother's womb.

### David's Life Events Seen by God

David finishes verse 16 with these words, "And in thy book they were all written, the days that were ordained for me, when as yet there was not one of them." These words contain the final indicator of God's loving concern for David.

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<sup>64</sup>Brown, Driver, and Briggs, Lexicon, p. 166.

<sup>65</sup>Ibid.      <sup>66</sup>Ibid.

<sup>67</sup>cf. Alexander, The Psalms, p. 540, Delitzsch, The Psalms, p. 350, Hengstenberg, Psalms, p. 501, Lange, Psalms, p. 647, and Perowne, Psalms, p. 441.

The psalmist here says that even his days were foreordained by his God.

The first word to be considered here is כָּלֵם. This is the masculine plural form of the noun כָּל which means "all, the whole."<sup>68</sup> This word refers to יָמִים translated, "days." Hence David is saying that his days were written in God's book. He goes on to say that these days were foreordained. This comes from the pual perfect form of the verb יָצַר, which in the qal means "to form, fashion."<sup>69</sup> But here, in the pual, it has the idea of foreordination. Concerning this, Hengstenberg says, "יָצַר in the pual is elsewhere used of the divine pre-determination, as contrasted with its execution and actual introduction."<sup>70</sup>

Here David is testifying to the sovereign and omnipotent God who is so great, and yet has seen fit to become intimately acquainted with one such as he. It is no wonder that David's heart is full of praise.

#### Conclusion

Thus it has been seen that David, being overwhelmed by God's gracious Messianic revelation, responds by writing a Psalm of thanksgiving to his God. He demonstrates God's

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<sup>68</sup> Brown, Driver, and Briggs, Lexicon, p. 481.

<sup>69</sup> Ibid., p. 428.

<sup>70</sup> Hengstenberg, Psalms, p. 501.

omniscience by stating that God knows all that there is to know about David. He further shows that God is omnipresent by stating that there is no place that David can go to escape God's presence. Then he states the reason for God's knowledge of and interest in David; the reason is that God was instrumental in David's creation. In verses 13-16 of this Psalm, David looks beyond the process of human procreation to its source. In the first two verses of this section he acknowledges God's work in his creation. This knowledge so overwhelms him that he bursts into praise of his God in verse 14. In the last two verses of this section, David speaks of God's knowledge of him while he was a developing embryo in his mother's womb.

Along with praising God for his activity with reference to his coming into being, David reveals some important information about man. He says in verse 13 that God made man with an immaterial aspect which was identified as the seat of his emotions and self-consciousness. This is what makes man a person. This characteristic of personhood was true of David even while in the womb. In verse 14 David reveals the fact that man was made to be fearfully distinct and extraordinary when compared with animals. By the use of the pual stem in verse 15 David says that there is something special about the way in which he came into being. Finally, in verse 16 David mentions that God saw him even when a



developing embryo. He also shows God's concern for and involvement in David's life by revealing the fact that his days had been foreordained by God.

David's message is that God demonstrated his love and omnipotence by designing and instituting an amazing process for the procreation of man. This process results in a distinctly unique kind of being who is a person; complete with a material and immaterial aspect. This knowledge leaves David utterly amazed.

Now that this text has been analyzed, it is important to discover how this text speaks to the issue of genetic engineering. The next chapter begins to answer this question by discussing the theological implications regarding the issue.

CHAPTER IV

THEOLOGICAL CONSIDERATIONS CONCERNING  
THE ORIGIN OF THE HUMAN SOUL

Introduction

The first way in which this text speaks to the issue of genetic engineering is by giving some insight into the controversy concerning the origin of the soul. The determination of this issue is of great importance in deciding what can and cannot be done with the fetus at various stages of development. In this chapter two theories concerning the origin of the soul will be identified, defined and evaluated. Then argumentation will be presented supporting the proposal that Psalm 139:13-16 supports the Traducian theory of the origin of the soul.

The Identification and Definition of the Two Theories

The Creationist Theory

Definition

This theory proposes that the soul of the child is not generated or derived from the parents. Instead it is created by the immediate agency of God,<sup>71</sup> It is then joined with the fetus.

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<sup>71</sup>Charles Hodge, Systematic Theology, Vol. II (Grand Rapids: Wm. B. Eerdmans Publishing Company, 1975), p. 70.

### Implications

There are three implications of this theory pertinent to the issue of this paper.

First, this theory recognizes a distinction between the body and soul; the soul comes from God, whereas the body comes from dust.<sup>72</sup> Secondly, this theory states that the soul of each person is created by God ex nihilo and then placed into the embryo at some time between conception and birth.<sup>73</sup> The implication drawn from this is that the process of human procreation is not complete in itself. God has to intervene by both the creation of each individual soul and by the implantation of that soul into the fetus. Thirdly, among the proponents of this theory there is very little agreement as to the time in which the soul is implanted in the fetus. Because of this there is uncertainty as to when the fetus becomes a person.

Dr. Daniel R. Hinthorn, assistant professor of medicine in the School of Medicine at the University of Kansas in Kansas City, who holds the creationist view, says that the soul is joined to the body at the time that the fertilized

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<sup>72</sup> Ibid.

<sup>73</sup> Hodge, Theology, p. 70, and Charles R. Smith, "Salvation and Christian Life," Class syllabus for Grace Theological Seminary, 1977, p. 20.

egg is implanted in the wall of the uterus.<sup>74</sup> But some other creationists would disagree, as there are varying opinions among them.<sup>75</sup>

### The Traducian Theory

#### Definition

This theory states that normal human procreation results in the generation of a whole person, complete with body and soul.<sup>76</sup>

#### Implications

There are three implications of this theory relative to the issue of this paper.

First, this theory maintains the unity of the person.<sup>77</sup> Second, this theory also maintains that God completed his ex nihilo creative work in the six days of creation. He now works through providence and natural processes that were divinely designed and instituted.<sup>78</sup> Thirdly, this theory

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<sup>74</sup>Daniel R. Hinthorn, "When Does Human Life Begin," Christianity Today, March 24, 1978, p. 36.

<sup>75</sup>cf. John R. Connery, "Abortion and the Duty to Preserve," Theological Studies, 40:2 (June 1979), p. 318, and Smith, Salvation and Christian Life, p. 20.

<sup>76</sup>William G. T. Shedd, Dogmatic Theology, Vol. II, part A (Minneapolis: Klock & Klock Christian Publishers, 1979), p. 21.

<sup>77</sup>Ibid., pp. 19, 21.

<sup>78</sup>Ibid., p. 25.

teaches that normal human procreation results in a person complete with body and soul.<sup>79</sup>

### An Evaluation of these Two Theories

#### A Word of Caution

Caution should be exercised when evaluating these two theories. There are problems with either theory.

#### A Word of Commitment

Even though there are problems with both theories, this author prefers a modified form of Traducianism. Shedd causes some unnecessary problems with some of his teaching. But a modified form of his basic theory eliminates most of the problems.<sup>80</sup> This writer endorses the Traducian theory because it advocates the unity of the person, and the fact that God's work of ex nihilo creation was finished after the six days of creation.

### The Contribution of Psalm 139:13-16 to the Issue

It is the opinion of this writer that David gives support to the Traducian theory in this text. Although it would not be used as a major text in the defense of Traducianism, nevertheless, it does give support to this theory in the following ways.

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<sup>79</sup>Charles R. Smith, "The Ethics of the Genetic Engineering of Humans," printed in the Grace Bible Conference Syllabus, Grace Theological Seminary, 1979, p. 6.

<sup>80</sup>cf. Smith, Salvation and Christian Life, pp. 18-20.

### A Process Complete in Itself

It is the opinion of this author that Psalm 139:13-16 demonstrates that human procreation and embryonic development is a process complete in itself, designed, instituted, and maintained by God.

#### The source of the process

David states very emphatically in verse 13 that God was his creator. He does this in two ways. First by the use of the emphatic personal pronoun  $\text{אֲנִי}$ , for God. Secondly, by the position of this pronoun. It is in the emphatic position. So, very early in this text, David emphasizes the activity of his God. By so doing, is David trying to communicate the fact that God created him directly? Obviously not, otherwise there would be no reference to his mother's womb. The message which David is trying to communicate is that human procreation is a process of which God is the source. God, who is all wise and all powerful, designed, instituted, and now maintains the process of human procreation.

#### The unity of the process

By the use of certain verbs in this text, David seems to be communicating the unity of this process. By unity, it is meant that both the material and immaterial aspect of man came into being as a result of this process. The process is complete in itself. This opposes the idea

that God intervenes in each individual case by creating the immaterial aspect.

The imagery of the verbs רקם and סך

Both verbs speak of something being woven. The word סך shows a comparison between a piece of woven cloth or a woven basket. Just as these involve a process, so also does the development of an embryo.

The word רקם shows a comparison between a piece of woven cloth of variegated colors to the formation of the human fetus in the womb. The development of the fetus is like the weaving of a variegated piece of cloth in that both involve a complicated process.

Thus, it can be seen that the imagery of these two verbs helps to demonstrate the unity of the process. Human procreation is a process complete in itself; from beginning to end.<sup>81</sup>

The use of the verb עשה instead of ברא

Even though these verbs can be used synonymously, they are distinct in the following way.

The verb עשה is the more general of the words in meaning. It can be used anywhere ברא is used and make sense.

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<sup>81</sup> While this text does not explicitly teach that personhood begins at conception, it is believed by this author that Psalm 51:5 does teach this. Thus it may be that this teaching is implied in this text, written by the same author.

It has the idea of "to make from existing materials."<sup>82</sup>

The verb ברא has the more narrow meaning. It can convey the idea of creation from nonexistent material as in Genesis 1:1.<sup>83</sup>

Therefore it seems that if the soul is the result of a separate act of creation, then the word ברא would have been used in order to make that point clear.

It is this author's opinion that עשה was used here in order to show the idea of a process. God is involved in that he designed, instituted, and maintains that process. Therefore David is not the result of the ex nihilo creative power of God in any way, but rather the result of a complex process designed and instituted by the omnipotent God of all creation.

The use of the pual stem with the verbs עשה and רקם

This writer feels that the pual here has the intensive passive use.<sup>84</sup> It is the opinion of this author that the use of the pual stem here draws attention to the marvelous process which resulted in the creation of David.

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<sup>82</sup> Charles R. Smith, "God and the Word," Class syllabus for Grace Theological Seminary, 1977, p. 14.

<sup>83</sup> Ibid.

<sup>84</sup> cf., James Battenfield, "Advanced Hebrew Grammar," syllabus for Grace Theological Seminary, 1978, p. 10a, Davidson, Grammar, p. 106, and Gesenius, Grammar, pp. 132-33.



Thus it is seen that the imagery of the verbs רָקַם and סָכַךְ, along with the use of the verb עָשָׂה, and the use of the pual stem with the verbs סָכַךְ and רָקַם show the unity of the process of procreation. Human procreation is a process complete in itself. God normally does not intervene directly in any way.<sup>85</sup>

By supporting the fact that the procreation of people is a process complete in itself, which has been designed, instituted, and maintained by God, this text supports the Traducian view. This theory recognizes the fact that God finished his work of ex nihilo creation in the six days of creation. Hence God does not individually create human souls and then place them within human embryos.

#### The Unity of the Person

In this text two key terms are used in parallel construction with personal pronouns, in order to show the unity of the person.

The word כְּלִיָּהִי is used figuratively to mean the seat of the emotions and self-consciousness. This is a reference to man's immaterial part but it also has in mind the whole person. This is shown by the fact that it is used in a

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One exception to this is the virginal conception of Christ, in which case God intervened directly by preventing the normal means of conception, c.f., Smith, "Genetic Engineering," p. 6.

parallel construction with a personal pronoun with reference to David himself.

The word *יָמָיו* is used here to figure the source of strength of the body. This word is used with reference to David's material aspect; it also has in mind the whole person. Again, this is demonstrated by its use in a parallel construction with a personal pronoun.

Hence it is seen that these two terms which are used symbolically for David's immaterial and material aspects respectively, are used in parallel constructions with two personal pronouns that refer to David's person. In this way this text shows the unity of the person. Both the material and immaterial aspects of man are a vital part of personhood right from the beginning.

In showing the unity of the person this text supports the Traducian theory which also recognizes the unity of the person. This is in contrast to the Creationist theory which proposes a distinction between the material and immaterial aspects of man.

### Conclusion

It seems to this author that David contributes to the issue of the origin of the soul by giving some support to the Traducian theory in Psalm 139;13-16. He does this by showing that human procreation is a process complete in

itself. God is involved in that he is the source and maintainer of that process. He also shows the unity of the person. Since the Traducian theory advocates these same two truths, it can be said that David supports this theory.

This is important to the issue of Genetic Engineering because traducianists insist that embryos are persons.<sup>86</sup> This author would add that they are persons from the earliest stages of the process. Therefore, one needs to be careful what is done with these embryos.

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<sup>86</sup>Smith, "Genetic Engineering," p. 6.

## CHAPTER V

### BIBLICAL ATTITUDES CONCERNING THE PROCESS OF HUMAN PROCREATION AND THE VALUE OF HUMAN LIFE

#### Introduction

In any discussion on genetic engineering, one must be sure that the proper attitudes with respect to the process of human procreation and the value of human life have been established. Is human procreation merely a chance development in the evolutionary process of man? Or was there a wise designer behind it? Of what value is human life? In the case of genetic engineering, does the end justify the means? Or do human values have a part in what can be done? Paul Ramsey says that the value which one places on human life will determine the ethics for what can be done with that life.<sup>87</sup> David makes an important contribution toward developing a Biblical attitude in both of the above mentioned areas in Psalm 139:13-16.

#### A Correct Attitude with Respect to Human Procreation

##### The Attitude Stated

Human procreation, from beginning to end, is a process which God has designed, instituted, and maintains. The

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<sup>87</sup> Paul Ramsey, Fabricated Man; The Ethics of Genetic Control (New Haven: Yale University Press, 1970), p. 15.

observance of this process should lead one to give glory to God, its source, for his greatness.

It may be argued that the effects of sin have caused problems with the process. How does this fit in with the above stated attitude? In answering this, let it be stated that David was writing as a man who was familiar with the effects of sin. He was speaking of the process as it was after the fall. However, it is true that he was making reference to his own embryonic development in which there were no apparent genetic defects.

#### The Attitude Supported

##### From the context of Psalm 139

The above stated attitude concerning human procreation is supported from the context of Psalm 139. In the first twelve verses, David speaks of God's omniscience (vs. 1-6), and omnipotence (vs. 7-12) with respect to David. From David's perspective God knows all about him, and there is no place that David can go to escape God's presence. The reason for this, David explains, is because God was his creator; i.e., God was involved in the process that resulted to the generation of David.

##### From the grammar of verse 13

In this text, emphasis is placed upon the part that God had in the process of human procreation in two ways.

The use of the independent personal pronoun with reference to God, and the emphatic position of the same show that the emphasis is upon God's involvement.

#### From David's praise

Upon reflecting on God's activity in the process of his creation, David praises God for his greatness as revealed through his involvement in the process. David was praising his God for his involvement in an awe-inspiring process which reflects the glory and power of God. David offers praise even in view of the fact that this whole process had been effected by sin and the fall of man.

### A Correct Attitude with Respect to the Value of Human Life

#### Introduction

This is perhaps the most important issue to be considered relative to the ethics of genetic engineering. It is of such great concern because the trend today is to lessen the value of human life in some cases. In the recent book, Whatever Happened to the Human Race, co-authored by Francis Schaeffer and C. Everett Koop, M.D., the rapid, yet subtle, loss of human rights in contemporary society is exposed. The book shows this by dealing with three areas of concern: abortion, infanticide and euthanasia. In order to demonstrate the fact that human rights are rapidly eroding, some quotes will be taken from this book to prove the point.

The loss of humanness shown in allowing malformed babies to starve to death is not a thing of the future. It is being put forward as the accepted thing right now in many quarters. All that is left is for it to become totally accepted and eventually, for economic reasons, made mandatory by an increasingly authoritarian government in an increasingly selfish society.<sup>88</sup>

In January 1978, Francis Crick, also a Nobel laureate, was quoted in the Pacific News Service as saying, ". . . no newborn infant should be declared human until it has passed certain tests regarding its genetic endowment and that if it fails these tests it forfeits the right to life."<sup>89</sup>

In Ideals of Life, Millard S. Everett, who was professor of philosophy and humanities at Oklahoma A & M writes, "My personal feeling--and I don't ask anyone to agree with me--is that eventually, when public opinion is prepared for it, no child should be admitted into the society of the living who would be certain to suffer any social handicap--for example, any physical or mental defect that would prevent marriage or would make others tolerate his company only from the sense of mercy."--He adds, "This would imply not only eugenic sterilization but also euthanasia due to accidents of birth which cannot be foreseen."<sup>90</sup>

Drs. Koop and Schaeffer had this to say:

We are moving from the state of mind in which destruction of life is advocated for children who are considered to be socially useless or decreed to have unmeaningful lives to the stance that we should perhaps destroy a child because he is socially disturbing.<sup>91</sup>

One wonders what the chances are for someone who becomes a burden in a society that practices the concept of the survival of the fittest and has begun this practice by starting to eliminate its children. Most societies, recognizing the total dependency of children, have given their young a place of special protection. Since our society has begun by abusing and then killing children,

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<sup>88</sup> Koop and Schaeffer, Human Race, p. 73.

<sup>89</sup> Ibid.      <sup>90</sup> Ibid., p. 75.

<sup>91</sup> Ibid.

we feel that for us the worst has come first. Where the destruction will end depends only on what a small scientific elite and a generally apathetic public will advocate and tolerate. Any hope of a comprehensive standard for human rights has already been lost.<sup>92</sup>

In view of such astounding attitudes with respect to human life, it is vital that the Biblical attitude concerning the value of human life be investigated and advocated. David makes this contribution toward the Biblical attitude regarding the value of human life in Psalm 139:13-16.

#### The Teaching of this Text

This text shows that God was greatly concerned about David while he was a developing embryo.

In verses 15 and 16 this truth is stated directly. The words, "my frame was not hidden from you when I was made in secret" (vs. 15), and "your eyes saw my unformed substance" (vs. 16), show that God was very much concerned about David when he was yet an embryo.

This same truth is stated in an indirect way in verse 16 with these words, "the days that were ordained for me when as yet there was none of them." God was not only concerned about David's person, but he was also concerned about David's days.

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<sup>92</sup>Ibid., p. 78.



### The Implication of the Text

The implication to be drawn from the above mentioned truth is this; if God is so vitally concerned about a person while yet an embryo, he is also concerned about that person in his post-natal state. It is this concern about people that demonstrates God's high regard for human life; both pre-natal and post-natal. With this in mind it must be emphasized that any set of ethics concerning the subject of the genetic engineering of humans must reflect a high regard for the value of all human life.

The recognition of this text's teaching of a high value for human life results in two general principles true with respect to genetic engineering.

First, out of a high regard for human life, people must look with compassion upon the needs of others, especially with respect to the human suffering caused by genetic defects. In order to reverse the trend of starving deformed babies, alternatives must be found. If something can be done in the field of genetic engineering that will help alleviate human need and suffering in this area, then it must be done.

Secondly, because of the high regard for human life which is taught by this text, men need to be careful as to what is done with the embryo. For embryos are persons also.

### Conclusion

In the light of this material it can be seen that the process of human procreation is not a chance development in the evolutionary process. Instead, it is an awe-inspiring, complex process which God designed and instituted. Men should hold this process in high regard and recognize that it reflects the power and wisdom of God. One should also recognize the high value of human life which is taught by this text and understand the principles that accompany this truth. Men should be moved by the human need caused by suffering in the area of genetic defects. They should do what they can to alleviate the problem. However, care should be taken in what is done with the embryo. The lofty end in view does not justify immoral or unethical means to reach that end.

## CHAPTER VI

### ETHICAL CONSIDERATIONS WITH RESPECT TO THE TECHNIQUES OF GENETIC ENGINEERING

#### Basis for the Considerations

##### The Text's Support of Traducianism

Traducianism teaches that human procreation results in the generation of a person complete with body and soul. This being the case, it needs to be stressed that an embryo is a person with all the inherent rights of personhood. For this reason, one needs to be careful about what is done to an embryo.

##### The Text's Support of Certain Attitudes

#### Attitude concerning human procreation

Because of the emphasis of this text on the magnificence of God's process of human procreation, one should stay within the general framework of that process in attempting to counter the effects of sin.

#### Attitude concerning the value of human life

In view of this text's support for the high value of life, it must be stated that one should not compromise the value of a human life for the sake of progress. However,

in view of the high value of human life, every possible effort should be made to alleviate human suffering caused by genetic defect.

### Statement of Considerations

#### Artificial Insemination

If conception cannot be achieved by ordinary means, then this writer sees no problem with artificial insemination as long as the husband's sperm cells are used.

#### Amniocentesis

For the present, the normal, intended use of this procedure cannot be considered ethical. It is currently used as a "search and destroy" effort. When genetic problems are found, parents are often counselled to abort. Let it be understood that it is not the procedure itself that is unethical, but rather the current purpose of the procedure.

#### Genetic Surgery

If effective methods of genetic surgery could be developed to correct genetic problems then it would be a good way to alleviate human suffering. It is conceivable that with amniocentesis, embryonic surgery and genetic surgery, that genetic defects could be detected and corrected in the early stages of gestation. However, care must

be exercised in the development of these methods that no human rights are violated. It should also be mentioned that genetic surgery is a process that could easily be abused if it fell into the wrong hands. Guidelines ought to be adopted to help regulate its use. This is very much like the use of nuclear energy. It has great potential if used for the benefit of man, but there is also great potential for harmful and destructive use.

#### Ectogenesis

The purpose and use of this technique are important in deciding its ethics. If the purpose of this process is to eventually replace fetal development in the mother's womb, then it must be considered wrong. But if this technique is used to aid the normal process, as in the case of premature birth, then there is no ethical problem.

#### In Vitro Fertilization

At this time this writer sees real ethical problems with this procedure. There are two things about this procedure that are of immediate concern. First is the fact that there is a high rate of failure. Many of the embryos fail to become implanted in the uterus. These bench embryos die and are eliminated. The second area of concern is in the fact that in research with mice, when fertilization took place .

outside of the uterus the occurrence of chromosome abnormality was five times greater. This figure may be more or less with humans, but in any case the possibility is there and is greater than with the normal process. In both of these cases one has not gained anything.

### Cloning

This author views the cloning of humans as ethically wrong. In the first place, cloning is radically different from the God-designed plan of human procreation which includes in the process both men and women. In the second place, cloning takes the glory away from God and places it on man. It is narcissistic and pure self-worship.

### Embryonic Sex Change

Drs. Koop and Schaeffer cite an example of a couple who wanted an abortion when they found out, through amniocentesis, that the fetus was not the desired sex.<sup>93</sup> If parents are willing to go to this extreme because the fetus is not the desired sex, then how much more will they use this option once it becomes more widely known and used? This author views this procedure as wrong. This is playing God. Man has not been given this right or responsibility. Besides there is still a lot unknown about all of the qualities of maleness and femaleness. Perhaps there is more to a person's

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<sup>93</sup> Koop and Schaeffer, Human Race, pp. 77-78.

sex than physical appearance. It is better for us not to interfere in such things.

## CHAPTER VII

### CONCLUSION

In dealing with the issue of the ethics of the genetic engineering of humans, this paper has considered several areas of concern.

First to be considered was the growing concern in various professions over the increasing appearance of genetic defects. In the light of this, it was further mentioned that the field of genetic engineering may provide some solutions to the problem.

However, upon realizing that there were moral and ethical considerations involved in genetic engineering, it was the purpose of this paper to discover what contribution Psalm 139:13-16 made with respect to this issue. With this in mind, this text was then analyzed and it was discovered that the text contributed to the issue in two ways. First, in the realm of theological considerations, it was shown that this text supports the Traducian theory of the origin of the human soul. This was shown to be important because this theory insists that embryos are persons from the earliest stages of fetal development. Secondly, it was shown that this text contributes to the issue by revealing proper attitudes concerning the God-ordained process of human



procreation and the value of human life. This is important in that human procreation must be considered in the proper manner and, because of the high value placed on human life by God, one needs to be careful how the human fetus is treated.

Finally, on the basis of this text's contributions to the issue, some general guidelines were given concerning the ethics of certain techniques of genetic engineering.

It is the opinion of this author that pastors are going to be increasingly confronted with ethical issues in the field of genetic engineering in the very near future. It is the desire of this author that the things considered in this paper will be of some help to serious students who are concerned with the issues involved in the determination of the ethics of the genetic engineering of humans.

## BIBLIOGRAPHY

- Alexander, Joseph A. The Psalms. Grand Rapids: Baker Book House, 1975.
- Allen, L. C. "Faith on Trial; An Analysis of Psalm 139." Vox Evangelica, 1977, pp. 5-23.
- Battenfield, James. "Advanced Hebrew Grammar." Syllabus for Grace Theological Seminary, 1978.
- Berkhof, L. Systematic Theology. Grand Rapids: Wm. B. Eerdmans Publishing Co., 1972.
- Briggs, C. A. A Critical and Exegetical Commentary on the Book of Psalms, Vol. II. In The International Critical Commentary. Edited by C. A. Briggs, et al. Edinburgh: T & T Clark, 1906.
- Brown, Francis; Driver, S. R.; and Briggs, C. A., eds. A Hebrew and English Lexicon of the Old Testament. Oxford: The Clarendon Press, 1972.
- Carmean, Robert V. "Abortion: Biblical Considerations." M. Div. Thesis, Grace Theological Seminary, 1975.
- Connery, John R. "Abortion and the Duty to Preserve." Theological Studies, 40:2 (June 1979), 318.
- Dahood, Mitchel. Psalms, Vol. III. Garden City: Doubleday and Company, 1975.
- Davidson, A. B. An Introductory Hebrew Grammar. 26th ed., revised by John Mauchline. Edinburgh: T & T Clark, 1966.
- Delitzsch, Frantz. The Psalms, Vol. III. Translated by Francis Bolton. Biblical Commentary on the Old Testament. Grand Rapids: Wm. B. Eerdmans Publishing Company, 1970.
- Elliger K., and Rudolph, W., eds. Biblia Hebraica Stuttgartensia. Stuttgart: Deutsche Bibelstiftung, 1977.
- Ellison, Craig. "Engineering Humans." Christianity Today, Jan. 19, 1979, pp. 14-18.

- Flanagan, Geraldine L. The First Nine Months of Life. New York: Simon and Schuster, 1962.
- Gesenius, William. A Hebrew and English Lexicon of the Old Testament. Translated by Edward Robinson, 8th ed., revised. Boston: Crocker and Brewster, 1857.
- Goodfield, June. Playing God. New York: Random House, 1977.
- Hengstenberg, E. W. Commentary on the Psalms, Vol. III. Translated by John Thomson Leith and Patrick Fairbairn. Edinburgh: T. & T. Clark, 1854.
- Hinthorn, Daniel R. "When Does Human Life Begin?" Christianity Today, Mar. 24, 1978, pp. 35-36.
- Hodge, Charles. Systematic Theology, Vol. II. Grand Rapids: Wm. B. Eerdmans Publishing Company, 1975.
- Koop, C. Everett. "Medical Ethics and the Stewardship of Life." Christianity Today. Dec. 15, 1978, pp. 8-14.
- . "The Other Human Rights Issue." Eternity. Oct. 1978, pp. 38-40.
- Koop, C. Everett, and Schaeffer, Francis A. Whatever Happened to the Human Race. Old Tappan: Fleming H. Revell Company, 1979.
- Lange, John Peter. Psalms. Translated by Phillip Schaff. Commentary on the Holy Scriptures. Grand Rapids: Zondervan Publishing House, n.d.
- Leupold, H. C. Exposition of the Psalms. Grand Rapids: Baker Book House, 1974.
- Maclaren, Alexander. "The Psalms," Vol. III. The Expositor's Bible, ed. W. Robertson Nicoll. New York: Funk and Wagnalls Co., 1900.
- Mitchell, Edward C. and Price, Ira M. Gesenius' Hebrew Grammar. 2nd ed. Boston: Bradley & Woodruff, 1895.
- Perowne, J. J. Stewart. The Book of Psalms, Vol. II. Boston: Bradley & Woodruff, n.d.
- Ramsey, Paul. Fabricated Man: The Ethics of Genetic Control. New Haven: Yale University Press, 1970.

- Rorvik, David. In His Image: The Cloning of a Man. Philadelphia: Lippincott, 1978.
- Scroggie, W. Graham. The Psalms. London: Pickering and Inglis Ltd., 1948.
- Shedd, William G. T. Dogmatic Theology, Vol. II, part A. Minneapolis: Klock & Klock Christian Publishers, 1979.
- Smith, Charles R. "God and the World." Class syllabus for Grace Theological Seminary, 1977.
- \_\_\_\_\_. "Salvation and the Christian Life." Class syllabus for Grace Theological Seminary, 1977.
- \_\_\_\_\_. "The Ethics of the Genetic Engineering of Humans." Printed in the Grace Bible Conference Syllabus, Grace Theological Seminary, 1979.
- Spurgeon, C. H. The Treasury of David, Vol. VII. New York: Funk and Wagnalls Company, n.d.
- Strong, August Hopkins. Systematic Theology, Vol. II. Valley Forge: Judson Press, 1976.
- Thiessen, Henry Clarence. Lectures in Systematic Theology. Grand Rapids: Wm. B. Eerdmans Publishing Co., 1973.
- William, Ronald J. Hebrew Syntax: An Outline. Toronto: University of Toronto Press, 1976.
- Young, Edward J. Psalm 139. London: The Banner of Truth Trust, 1965.



