According to Which Paradigm do Reformed Scientists Work? A Response to Zwart's Response to Walicord and Hayes

Jurgen-Burkhard Klautke

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A Response to Zwart’s Response to Walicord and Hayes

I. Review of the continuing debate

First, I would like to thank the editors of Pro Rege for allowing me to contribute (once again)

Dr. Dr. J.B. Klautke studied theology and philosophy in Switzerland, Germany, and the Netherlands (including the Vrije Universiteit in Amsterdam). After decades of teaching at universities and seminaries in Switzerland, the Netherlands, and Germany, where he also confronted questions of scientific theory in the light of the Holy Scriptures, he is currently working as Dean at the Academy for Reformed Theology in Giessen, Germany. He can be contacted at jbklaute@gmail.com.

to the debate. The debate was initiated by an article by Ben Hayes and Sacha Walicord. Their article was entitled Science vs. Faith: The Great False Dichotomy. Since this article and the subsequent contributions date back somewhat, I will first briefly recall what the debate is about.

Walicord and Hayes had reminded us that “every scientific outcome will be determined a priori by the presuppositions that the scientist, who is engaged in the scientific endeavor, holds by faith.” In discussions of the philosophy of science, this is actually a given. The authors emphasized that this principle applies to all branches of science, not only to the natural sciences, but also, for example, to the human sciences. They revealed—convincingly, in my opinion—what this means for the work of an atheistic scientist: such a scientist is quite capable of recognizing “fragments of truth,” but he is not able to explain “why this fact exists or to what ultimate end it exists.” Pointing out that Holy Scripture is not “only useful for personal salvation and personal piety,” Walicord and Hayes rebuke the “many scientists in the Christian realm [who], apparently in order to find acceptance with secular Christian academia, utilize the same secular naturalistic presuppositions as non-Christian scientists and then claim that their supposedly neutral research has rendered results that conflict with the perceived teachings of God’s Word.”

by Jürgen-Burkhard Klautke
Recalling J. G. Machen, G. Bahnsen, C. van Til, and J. Lisle, and citing Rom. 1:18,19, we find their affirmation that there is no neutral position in science. They also emphatically reject the idea that a Christian scientist can refer exclusively to the “general revelation” of God. They explain that without special revelation, i.e. without the Holy Scriptures, one must inevitably go astray, for reality can only be rightly understood according to God’s authoritative special revelation.

The authors explicitly admit that certain passages of the Bible can be interpreted differently. But they do not accept the idea that when a Reformed scientist draws the conclusion, he may completely ignore Holy Scripture for his scientific work or give it only a subordinate importance: “Of course, people can interpret biblical texts differently, but to use the possibility of different interpretations as an excuse to abandon biblical validity for doing science apart from (=contrary to) biblical principles means to engage in the *ab usus non tollit usum* fallacy.”

When I first read this article, I did not find these remarks particularly exciting. I was all the more surprised by the sharp reaction to this article by the former professor of Dordt College, Arnold E. Sikkema. Introducing himself as “co-director of the Kuyper Scholars Program,” he not only expressed outrage that the authors had brought such a man as Jason Lisle “to the attention of the academic world” at all, but also stated that he had discovered in Walicord’s and Hayes’ article “numerous misunderstandings about science, about faith, and about the decades-long dialogue that has been undertaken by scholars, including Reformed Christians, in many disciplines.” He also found their use of the term “plain reading of scripture” untenable. And Sikkema even put things into the mouths of Walicord and Hayes that they had never said. For example, he twisted the term “naturalistic” used by the two authors into “natural.”

In what follows, I will discuss John Zwart’s article: “How do we do our sciences as Reformed Christians?” The author places his article in continuity with the preceding remarks by adding “The Debate Continues” to the title.

### II. Accommodation

#### 1. Accommodation as used by Zwart and Walicord/Hayes

Prof. Zwart wants to continue the debate by focusing on the term *accommodation*. His thesis, for which he invokes Calvin, citing Alister McGrath, is that Calvin’s “approach to biblical discussion of astronomical observation is to explain it in terms of accommodation. Calvin’s accommodation principle explains that biblical passages use everyday language rather than scientific terminology or models. This is not trying to accommodate a ‘secular interpretation of reality over biblical truths,’ as Walicord and Hayes describe it, but rather refers to God’s using common language to accommodate the limited understanding of readers of his Word. The plain words of Scripture are not necessarily the literal words of Scripture.”

Walicord and Hayes also mentioned this term in their article. But they cautioned against it: “If science is done from the basis of the affirmation of the divine inspiration and infallibility of Scripture, it requires scientists to develop and analyze their theories and interpretations according to what has been revealed in God’s Word. The problem with many Christians today is not one of outright denying the truths of Scripture, but of trying to accommodate secular interpretations of reality over against biblical truth. Schaeffer warns that ‘here is the great evangelical disaster—the failure of the evangelical world to stand for truth as truth. There is only one word for this—accommodation.’”

While Zwart uses the term *accommodation* positively, Walicord and Hayes warn against the implications of this term.

In order not to talk past each other in this debate, I think it is indispensable to account for the previous historical use of the term *accommodation*.

#### 2. Accommodation in the history of the church

Already in the early church, Christians used this term. They used it to describe the way God revealed himself to human beings in this world. God is incomprehensible in Himself; He is unchanging, infinite, omnipotent, omniscient and eternal. In order for this Being to make himself intelligible,
to humans, he must condescend to them. This condescension (\textit{synkatabasis}) of God they called \textit{accommodation}. The entire salvation and redemptive work of God, particularly the incarnation of the second person of the Trinity, is \textit{accommodation}. The fact that God used human language and also used anthropomorphisms in His revelation, so that the Bible, for example, speaks of God repenting or regretting (Gen. 6:6; Ex. 32:12-14; 1Sam. 15:11, 29, etc.), shows that God is accommodating himself.

In the use of this term, the Church Fathers were always aware of the fact that God, in speaking to mankind, did indeed condescend, but never lied. The accommodation of God was always about God making himself understandable, and it was pedagogically motivated. Only because of the accommodation of God is man able to understand God at all.

Perhaps this fact can be illustrated by the following example: When parents explain to their child that he or she came into being in the womb of the mother, they certainly do not use medical terminology, but what they say is undoubtedly not wrong. It is the truth in a way that the child can understand. If they tell their child that the stork would deliver the children (as some parents in Europe do), they lie. Christians understood God’s speaking in a similar way: no one is able to fully understand God. But that does not mean that one cannot understand Him at all.

In the following centuries, the accommodation of God was an important part of dogmatic thinking. It was only a question of how man can understand the accommodation of God at all. So theologians referred to the illumination by the Holy Spirit and to the covenant relationship between God and man. They also pointed to the fact that man is created in the image of God and that therefore a link exists between object and subject. Especially in the Middle Ages, the analogy that exists between God and man (\textit{analogia entis}) was emphasized.

John Calvin also understood the accommodation of God as God’s pedagogical form of his friendly condescension. God clothed Himself in a form in which He was able to be understood by man. The accommodation of God therefore means that God spoke to man in clarity and perspicuity.

3. \textit{Accommodation in the Age of the Enlightenment and in Modern Times}

In the Age of the Enlightenment, people continued to speak of \textit{accommodation}. But now, this term was understood in a completely different way. By bringing a fundamental change in the understanding of the relationship between God and the world, deism also changed the understanding of God’s revelation. Thus, also the term \textit{accommodation} was understood differently. Some equated God with nature (Spinoza), others thought of Him as constrained within the limits of human rationalism (Descartes). From now on, humans and their reason sat on the throne of knowledge. Humanity now questioned the anthropomorphic speaking of God, and they sought to leave it behind. The miracles reported in the Bible were for them an inadequate “clothing” that was childlike or childish.

During this shift of the understanding of accommodation, the natural sciences were detached from God’s revelation: What the Holy Scriptures say about the world was an adaptation or accommodation to the previous human infancy. But now this infancy was to be overcome in the name of reason. It was no longer the Holy Scriptures, but reason, from which we recognize how the natural world works and how it is to be understood correctly.

In principle, this attitude did not change in the following centuries. In the liberal theology of the 19th century, theologians limited themselves to the so-called salvation questions and left the investigation of the world to the secular sciences. Also in the dialectical (neo-orthodox) theology of the 20th century, nothing really changed. In view of the Holy Scripture, theologians spoke humbly of its “servant-form” (Knechtsgestalt). But these theologians made the \textit{diastasis} between God and man...
so large that practically no connection existed be-
tween God and man. It sounded very pious when
a theologian proclaimed that God is in heaven and
we are on earth. But in everyday life it meant this:
to God belongs heaven, to us belongs the earth. Or
even more clearly: God may deal with heaven and
leave us alone here on earth in our (scientific) ac-
tivities.

4. Accommodation: Evaluation

So, until the beginning of the 17th century, the
term *accommodation* was used to describe the way
in which the incomprehensible God has conde-
sceded to his creatures so that we can understand
Him in His revealed Word, the Holy Scriptures.
However, in modern times, the same term was used
for humanity’s emancipating themselves from the
revelation of God and, in the name of their mature,
autonomous reason, largely despising this accom-
modated revelation.

In the classical sense, accommodation happens
in every sermon of the preacher of the Word. In any
evangelistic or missionary outreach, a pastor has to
take into account the situation of his hearers. Paul
did the same (see for example 1Cor. 3:1ff). In mod-
ern times, however, humans declared themselves to
be of age, and they thought that they could dis-
paragingly call God’s revelation *accommodation*
by virtue of their enlightened reason, and then criti-
cize it or use it only selectively. Accordingly, higher
criticism arose.

Only very few theologians resisted this develop-
ment. Among these exceptions was Abraham
Kuyper. He strictly rejected the understand-
ing of accommodation as it had arisen in the
Enlightenment and dominated in his time.19
Kuyper himself distinguished between *theologia
archetypa* and *theologia ectypa*, emphasizing that all
our knowledge of God is anthropomorphic:20 we
can understand God at all only through the im-
ages and symbols of the created world we live in.
Now, we look at God only through a mirror (1Cor.
13:8-12).21

Bavinck thought along the same lines.22 In any
case, it is clear that both theologians strictly refused
to disregard the first chapters of the Holy Scriptures
for scientific work, acknowledging at the same time
that God has adjusted his speech to the limited
capacities of man, and that he does not speak in
scientific language, but in the language of everyday
experience.

III.

John Zwart’s understanding of accommodation

1. Not a question of terminology

After this short overview of the history of the term *accommodation* so far, let us now consider the
view on accommodation of John Zwart, emeritus
professor physics, Dordt University. John Zwart
invokes Calvin.23 In doing so, he suggests to the
reader that Calvin answers the question of how a
Reformed theologian should do science in the same
way that he does.

First of all, we should understand that Zwart
shifts the entire issue to the level of language:
“Calvin’s accommodation principle explains that
biblical passages use everyday language rather than
scientific terminology or models.”24 Of course, nat-
ural scientists use terminology that is not found di-
rectly in the Bible. As we all know, scientific termi-
nology is used not only in the natural sciences but
also in other branches of science. Theologians, for
example, also use terms that are not directly found
in the Bible, such as “Trinity,” “incarnation,” “justi-
fication,” etc.

But the terminological issue was not and is not
in dispute in the debate so far. Neither Walicord
nor Hayes—nor I—have ever demanded that
Reformed (natural) scientists must dispense with
all conceptual terminology and quote only biblical
passages in their lectures. Nor did Walicord and
Hayes ever claim that the Bible is a natural science
textbook. The general message of Scripture is how
the triune God comes to His saving purpose in this
world and glorifies Himself through it. But just as
a river is defined by the fact that water flows in it
(even though stones and many other things also
flow through the river), we learn much more than
God’s saving purpose in the Word of God—we
learn about the beginning of world, the history of
the world, and the end of the world. Thus, we learn
much that is relevant for our scientific work.

But once again, Walicord and Hayes were not
concerned with questions surrounding terminolo-
gy. Rather, they raised this question: In what paradigm should Reformed scientists work? To put it in terms of the natural sciences: Are they allowed to work within the framework of (evolutionary) naturalism, or are they to work on the basis that God created this world in six days?

Of course, people will try to evade this question by pointing out that there are different interpretations about the first chapters of the Word of God. But the answer to this question is that it can be interpreted in the right way only as the Holy Scriptures themselves interpret them. See for six-day creation, Ex. 20:11; Mt. 19:4; for the garden of Eden, in which Adam and Eve lived as historical persons: Rom. 5:12-19; 1Cor. 15:26; 2Cor. 11:2; 1Tim. 2:12-14; for Cain and Abel: Mt. 23:25; Hebr. 11:4; John 3:11,12; for the historical worldwide flood: Mt. 24:37-39; 2Pet. 3:5,6.

The Church Fathers and the scholastic theologians and, of course, also the Reformers, understood the first chapters of the Holy Scriptures in this sense. Calvin belongs unambiguously to those whom Zwart calls “young-earth-creationists.” Speaking of Genesis 1 in particular, Calvin says that this chapter “[is] by no means an obscure testimony which Moses bears in the history of the creation....” As is well known, Kuyper and Bavinck cannot be cited as representatives of an evolutionary cosmogony either.

Since we are dealing with self-evident facts, Genesis 1, of course, does not say everything that can be said about creation, leaving much for any natural scientist to explore. Yet, we learn from Genesis 1 some things which are not of central importance for a Reformed natural scientist in his daily business. To illustrate this point with the fourth day of creation, we learn here that God made not only the sun, the moon, and the stars, but also the purpose: so that humanity can, in this way, order and structure their times and also their holy festival times (Gen. 1:14, 15). In this way, God indicates that He created everything for humanity, so that creation serves humanity and that humanity in turn has to serve God. (I will come back to this aspect later). First, however, let us state that Genesis 1 and its teachings about creation must be taken seriously by any Reformed natural scientist.

This attitude naturally leads to conflicts with the (academic) environment. But this is what the creation account has always led to. In the Ancient Near East, the creation account was offensive by stating the stars were not gods. In the early church, Gnostic ideas were contested with reference to the creation account, as was Manichaeism. Accordingly, Genesis 1 and what else is mentioned in the Bible about the world will have to lead Reformed Christians today to profess that naturalism is false: It is God who created this world, and He is the one who directs everything.

This is precisely what John Calvin already made clear—interestingly on a passage that is also quoted by Zwart (Joshua 10): “No pious man, therefore, will make the sun either the necessary or principal cause of those things which existed before the creation of the sun, but only the instrument which God employs, because he so pleases; though he can lay it aside, and act equally well by himself. Again, when we read that at the prayer of Joshua the sun was stayed in its course (Jos. 10:13); that as a favor to Hezekiah, its shadow receded ten degrees (2Kings 20:11); and that by these miracles God declared that the sun does not daily rise and set by a blind instinct of nature but is governed by Him in its course to show that He renews the remembrance of His paternal favor toward us. Nothing is more natural than for spring, in its turn, to succeed winter, summer spring, and autumn summer; but in this series the variations are so great and so unequal as to make it very apparent that every single year, month, and day, is regulated by a new and special providence of God.”

So Calvin does not accept what had increasingly broken through since Occam’s nominalism, namely his understanding of nature as “if there
were no God” (etsi deus non daretur). Calvin contradicted all naturalism (“blind instinct of nature”). This is what Walicord and Hayes were concerned about in their article.

2. The Revelation of God: directed towards man

Zwart also cites some other biblical passages. None of these biblical passages question the statements of the creation account in Genesis 1. Apart from Joshua 10, he mainly refers to passages from the Psalms, that is, from poetic parts of the Word of God. Referring to passages about the sunrise and the sunset, Zwart claims that the Bible presents a “geocentric” world view. Well, I am not sure that the Bible really teaches that. Rather, I would say that the Holy Scriptures give a theocentric or heaven-centered world view.

But there is indeed some truth to what Zwart writes, since the Scripture speaks in terms of man (ad hominem). As we have mentioned: The whole creation serves man, so that man serves God. Therefore, God does not only speak in anthropomorphisms and in pictures from everyday life but also uses language related to man.

In an anthropomorphic way, the Holy Scriptures speak not only when they speak about the world around us but also when they clarify spiritual truths. When Paul says that “we have been planted together in the likeness of his death” regarding our union with Christ (Rom. 6:5 KJV), he takes an image from botany to illustrate spiritual truth.

But not only do the Scriptures take images from creation to illustrate spiritual truths; they also relate creation to humanity. That is why expressions like sunrise and sunset are ways of speaking that reflect humanity’s experience. As I said, this is how the Scriptures speak in other passages as well, i.e. when they proclaim that the mountains burst into exultation and the trees clap their hands (Isa. 55:12).

When Paul was caught in a storm on his journey by ship to Rome, Luke reports that the shipmen thought that “the land approaches them.” The English translations of this verse translate correctly: “the shipmen deemed that they drew near to some country” (Acts 27:27, KJV). But literally, the Greek text says that the sailors got the impression that the land was drawing near to them.

Therefore, I would turn Zwart’s sentence around. Zwart writes, “The plain words of Scripture are not necessarily the literal words of Scripture.” I would say instead, “The literal words of Scripture are not necessarily the plain words of Scripture.” Let us not quibble about words here, but hold what is at stake: all of our language is full of metaphors taken from creation. Our language is directed toward humanity. And God, in His kindness, adapts Himself to humanity in His revelation.

Still, God did not make this accommodation so that we might disregard his revelation, but so that we might rightly understand Him and the world. The Word of God is given to us in order to save us from our self-inflicted blindness and questions and to shatter us again and again in our (scientific) self-assurance.

The following is important for our question: If a Reformed scientist defies the express statements of Holy Scripture in the name of reason, we may call it accommodation, but we are not using the term as Calvin used it but as the Enlightenment used it.

3. For comparison: Common Grace

In principle I have nothing against the term accommodation, at least not if we want to understand this term in the classical sense. Accommodation, then, means that God has condescended to us in his revelatory speaking, but without speaking error. And yet, given the abuse that has been and is being made of this term since the Enlightenment, I do not recommend using it. Perhaps I can illustrate the danger of what I mean by another misused term. I am referring to the term common grace.

In the middle of the 19th Century, when it became clear that all legislation in the kingdom of the Netherlands had changed from a legal order based on Christian norms to one determined by the atheistic spirit of liberalism, Reformed Christians were faced with the question of how they could still engage in political activities in good conscience in the face of this situation. Those who thought that this was nevertheless possible justified this engagement with the fact that non-Christians also live in this created world. Consequently, they argued, not everything that non-Christians think and do in politics and science can be wrong, because atheists cannot turn this world upside down. To argue
in this line, they used the term *gemeene gratie* for this. (Kuyper deliberately did not speak of *gemeene genade*).

When this term was translated into English (*common grace*), it was quickly misused in the sense of the cultural optimism of that time. It was often understood to mean that a Christian can more or less adopt the thinking of the world because there is also right thinking there. But because of this shift, other Reformed truths were pushed into the background or were totally ignored. These were truths that clearly taught that man is totally depraved (Heidelberg Catechism LD 2, qu. 5; LD 3, qu 7), that he is blind, and that without the special revelation of God no one can truly understand this world, in short, that all men are under the common wrath of God since the Fall (Rom. 1:18).

When using the term *accommodation*, we must be careful not to instrumentalize it in order to emancipate ourselves from what God has said in his holy Word. With Calvin, we have to acknowledge that we only understand this world correctly when we see it “through the spectacles”\(^{30}\) of God’s special revelation. And of these “glasses,” the Reformer testified that they are characterized by clarity and perspicuity, making the understanding of the world not dark but bright (Ps. 119:105). At the same time, the Word of God passes scathing judgment on the autonomous, imagined “knowledge” of men: Jeremiah 23:16, 25-26, 30-32; Galatians 3:1; Romans. 1:16-23; Ephesians 4:17-19; 1Timothy 6:20-21; 2Timothy 3:5.

**IV. The only possible paradigm for Reformed scholars**

In Romans 1:18-32, Paul criticizes people who look at the world around them without wanting to acknowledge God’s divinity and His eternal power. But if I understand Paul correctly, his criticism of these people not only aims at the fact that they do not want to acknowledge God but also points at the nonsense they believe instead. For it is part of our humanity that if we deny God, we must instead make images and models from our environment to explain existence.

Paul describes what this meant in the 1st century AD. On questions about the origin of the world, the Egyptian worldview was quite popular at that time. This ideology attributed the cosmogony to all kinds of animals (like crocodiles) (Rom. 1:23). With regard to human beings, people in the Roman era perverted their sexuality. Instead of maintaining the creation order of male and female, they sought to satisfy their lusts in homosexual relationships (Rom. 1:26-28).

Is Prof. Zwart so sure that if the apostle Paul were writing today, he would evaluate the present godless cosmological models as well as the human scientific ideas of the 21st Century differently, perhaps even more scathingly? Regarding the origins of the world, we can think of naturalism with its idea of a big bang or of dark matter and the like. And when we look at human sciences, we could think of the “scientifically validated” gender ideas of Judith Butler, for example. Because of her scientific studies, this professor from Berkeley demands that one must see through the distinction between men (male) and women (female) as nothing other than a social construction. The consequence is that liberal politicians are now drawing conclusions from this “scientific result” here in Europe: In the short term, all children between the ages of 10 and 13 have to decide for themselves whether they want to live in the future as a boy or as a girl or as one of the 72 intervening genders.

Zwart, who at first morally rebuked the “heated language” of some of the previous participants in the debate, at the same time felt pushed to accuse young-earth-creationists of “ill-will.”\(^{31}\) I wonder whether he is aware of the fact that every natural scientific model is only “validated” until the next “scientific revolution” (Thomas Kuhn).
Habermas caused a big stir in Europe some years ago with his assertion that the whole scientific enterprise is nothing but a big “language game,”32 in which scientists participate until they are driven out of their cloud-cuckoo-land and enter another one. Even though this kind of thinking lies like a load over the whole science business at the universities in postmodernism today (at least here in Europe), I explicitly state that I do not represent this view. But I note that the “young-earth-creationists” criticized by Zwart at least try to think in the paradigm of God’s revelation as it is given to us by the Holy Spirit in His inerrant Holy Scripture.

Undoubtedly, they make mistakes in doing their science. Who does not? But is it really a serious alternative to limp along on both sides—a bit of rationalism and besides, of course, a bit of the Bible—calling this approach “humility”33 and propagating it under the flag of “accommodation”? Anyway, while Sikkema would advise student Ben Hayes to “afford expert direction by a qualified scholar of science and faith in any of the various Dordt departments where such matters are rigorously attended,”34 I would give him the following advice: First, inquire in what scientific paradigm the professor in question is thinking and working: Is he working on the basis of the inerrant Word of God? Or is he arguing atheistically and naturalistically? Or does he somehow maneuver his way in between? I would trust the professor only in the first case.

Zwart fears that young people will then leave the church if they are told that God’s Word teaches six-day creation. I have had just the opposite experience. Young people today have primarily one question. They are not so concerned today by the question of how to get a gracious God. They also probably do not have so many questions about the relationship between God’s election and His covenant of grace. Above all, they are concerned with this question: What does God have to do with this world? Let us give them clear and biblically based answers to this question from God’s holy revelation. This they deserve.

Endnotes
2. Pro Rege, June 2019, p. 36.
5. Pro Rege, June 2019, p. 38.
16. See for example: Tertullian, Adversus Marcionem. Liber IV; MPL. 2, 481: “...facilius illos ignorasse praesumeretur, quam Dominum falsam in se praedicationem sustinere potuisse. Sed patiens Dominus; non tamen confirmator erroris, imo etiam detector Creatoris.”
20. A. Kuyper, Dictaten Dogmatiek I, Kampen 1920, p. 37ff; 145ff. Whether and to what extent Kuyper is influenced here by categories of thought of I. Kant and German idealism is of little interest here.
See: H. Dooyeweerd, “Kuypers Wetenschapsleer,”


32. The concept of “language game” was introduced by the book of Ludwig Wittgenstein, (1889-1953) *Philosophische Untersuchungen* (1st edition 1953). (For English see the [revised] fourth edition: Ludwig Wittgenstein *Philosophical Investigations*). Jürgen Habermas took up this term (that—nota bene—originally came from the field of the philosophy of language), in his study *Intention und Bedeutung. Zu Motiven bei Sellars und Wittgenstein*, in Rolf Wiggershaus (editor), *Sprachanalyse und Soziologie. Die sozialwissenschaftliche Relevanz von Wittgensteins Sprachphilosophie*, Frankfurt am Main (Suhrkamp, 1975. In this study he included the term, “language game” for the field of sociology.

With recourse to one of the leading French postmodern thinkers, Jean-François Lyotard, Habermas then extended this concept to the whole of legal thought. However, he had already hinted in this essay that it might be extended to the entire scientific sciences. See on this: Jürgen Habermas, *Jean-François Lyotard, Das postmoderne Wissen* (Böhlau, Vienna et al, 1986). Whether there is an English translation of this book, I do not know. But for the discussion of his view about the “construction of justice,” see the English study by Stanley Raffel, *Habermas, Lyotard and the Concept of Justice*, Edinburgh Studies in Culture and Society (Basingstoke, Hampshire, England: Palgrave Macmillan, Springer, 1992).


