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# A Critical Approach to Modern Conception in the Context of Objectivity and Quantitative Method

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***Abstract*—**The struggle between modern and postmodern understanding is also displayed in terms of the superiorities of quantitative and qualitative methods to each other which are evaluated within the scope of these understandings. By way of assuming that the quantitative researches (modern) are able to account for structure while the qualitative researches (postmodern) explain the process, these methods are turned into a means for worldviews specific to a period. In fact, process is not a functioning independent of structure. In addition to this issue, the ability of quantitative methods to provide scientific knowledge is also controversial so long as they exclude the dialectical method. For this reason, the critiques charged against modernism in terms of quantitative methods are, in a sense, legitimate. Nevertheless, the main issue is in which parameters postmodernist critique tries to legitimize its critiques and whether these parameters represent a point of view enabling democratic solutions.

In this respect, the scientific knowledge covered in Turkish media as a means through which ordinary people have access to scientific knowledge will be evaluated by means of content analysis within a new objectivity conception.

***Keywords*—**knowledge and objectivity, dialectic method, qualitative and quantitative methods, modernism/postmodernism.

## I. Introduction

ALTHOUGH it has been understood that today the quantitative methods are unsatisfactory to expound the social world, these methods continue to be widely used as a convention or probably as a belief or cognition in social sciences. The findings obtained with this method and assumed to be representing the truth are also considered to be meaningful signs for the real world, and therefore, unverified findings(and hence knowledge) are contemplated to be meaningless for this world.

It is known that the findings representing the truth have the power of representation merely within the limited dimensions of reality (a specific context), whereas it is also neglected that the findings are inadequate to give meaning to today's world. As many phenomena and processes for a modern society characterized with standardization develop similarly, in other words, the dimensions, borders and contents of these phenomena and processes are structurally almost alike, in other words there is a fundamental restraint in reality as a whole; it might be thought that such a negligence is not meaningless. Nevertheless, at the point where modernism has arrived today, in other words, where a struggle of individualities is fought in a structure considered to be post-modernist by many, generalized findings/truths are anyhow insufficient as a result of the attempts to expand and diversify the individual borders. There are some problem areas in this explanation.

Initially, the truths presented through quantitative methods are impermanent, in other words, they may be refuted. At any rate, quantitative methods do not claim more than the fact that these truths are meaningful within their borders with regard to time and space.

The inadequacy of quantitative methods in explaining the social world is a result in relation to methodology. The critique of quantitative method is based on this result whereas the conception of objectivity on which this method is based has not been discussed in its various dimensions. These critiques do not have a holistic point of view. The process of obtaining knowledge does not only include method as a technique. Besides, there are other factors effective over the process such as in relation to which field knowledge is searched for, for what purposes this knowledge is to be benefited and how it is presented. The objectivity of these factors should also be maintained within the framework of the modernist understanding so that an objective knowledge could be attained in the whole process. Otherwise, the objectivity of the method as a technique does not assure the objectivity of the information/knowledge attained by the method. In other words, the objectivity of the knowledge attained by a quantitative method does not mean the objectivity of the modern knowledge (or of the whole process of obtaining knowledge).

Despite the critiques, quantitative methods have been employed more frequently today.

On the contrary, ordinary people to whom generalized knowledge is presented are deluded with the discourse that they are living in the world of the distinguished. While science still acting strictly with modernist reflex, is the target of post-modernist philosophy to create illusions?

Social sciences do not make any efforts to seek new capabilities to make ordinary people overcome their ordinariness. This approach neither seems democratic nor

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presents anything new to the world with respect to democracy.

## II. Knowledge, Concept and Context

The process of scientific knowledge is a human phenomenon, which means to say that *scientific knowledge is necessarily historical and social* [1]. This entails admitting the fact that the process of obtaining scientific knowledge and hence the scientific knowledge itself involve certain fundamental limits/problems from the very beginning, which are likely to reappear throughout the process/may always exist throughout the process. The dependence of scientific knowledge on a certain historical and social context implies that it would be able to represent truly only the contextual reality out of which it has arisen but would lose from its representation validity at least in its logical terms (that is, criteria of concept) apart from that context. The primary issue in relation to scientific knowledge thereby turns out to be *conceptual validity or discontinuity of scientific knowledge that is limited to a certain context.*

"Concepts are frameworks constituted in thinking in order to know and construe *what exist*, and therefore they provide means of not being but being known and hence knowing" [2]. The contextual reality is turned into (scientific) knowledge by means of concepts. The validity of the (previous) scientific knowledge in hand in terms of criteria of concept holds in the face of changing reality (what is now) to the extent that it is still possible to frame/construe the facts of the present reality in the same manner. Therefore, concepts and the knowledge obtained by means of them are inconstant frameworks continuously renewed depending on the dynamic of becoming (dialectic) of the reality.

Such a definition of (both universal and individual) concept is essentially based on a structuralist approach, which includes certain problematics within itself. First of all, the criteria of concept that enable to define reality, in other words, to fix reality (through transforming it into knowledge) seem to be dependent upon as much on the reality itself (object) as on the perception of the intellect or the individual (subject). As in Lippmann's claim in the 1920s that the public reacts upon not the real facts but only upon the images (mental schemas) in their mind [3], *knowledge of what exists is reached not only through what exists (object) but also through bringing what exists at the moment into being or fixing it (act of subject/subjective act).*

In particular, fixing of reality, as one of the points of postmodernist critique, does not imply acceptance of invariability of concept/knowledge. Relying on knowledge as a reference point in time and space is at the same time a method of transcending the knowledge in hand (dialectical method). Although it is a well-known fact that mind does not develop independent of social context, the inevitability of the rise of specific concepts due to the specific perceptive patterning of the individual means that *what exists* may be known as different beings due to its different conceptions. Here is where a new understanding that differentiates itself from the modern approach (in terms of concept) developed: the postmodern conception that emphasizes individualities and individuality of assigning meaning. However, according to this conception, individual determinations are elevated to the status of essential determinations, which results in the fact that stable structures (such as religions, races, nationalities, genders) are increasingly taken as a criterion or centralized [4]. As it is, *what exists* individual is left outside stable structures as a subject [5]. Therefore, contrary to what is claimed by postmodernist conception, there is no transition into a universe of conceptlessness. In contrast, conceptual stability appears to be a dogma due to the centralization of certain stable structures.

## III. Dialectic Method

The knowledge obtained by means of criteria of concept is continuously re-constituted through dialectical method. Dialectical knowledge is to know the subject matter at hand in totality of its relations as much as possible [6]. In this sense, concept/knowledge is a representation that always falls short since dialectical method renders completion or finiteness of both (the knowledge of) concept and (scientific) knowledge structured in terms of concepts impossible.

Each concept is situated in a network of infinite relations through constant reconsideration and development of concepts, which is called *dialectization of concepts by Bachelard and Gonseth* [7]. Assurance of constant re-definition of concepts through network of possible relations does not allow any structural differentiation of concepts and hence of knowledge constituted in terms of these concepts by transcending the point of view of the modernist conception referring to the dialectical method or does not let the conceptual infrastructure of knowledge be undermined as the postmodernist conception tries to achieve. Constant re-constitution of concept/knowledge through (their) possible relations also means recognition of the fact that each subject (individual) constitutes knowledge from the point of view of his universe.

Individuals frame/give meaning to/consitute *what exists* in different relations with reference to their specific psychological patterning. The privileges supposed to be granted to the individual/subject by postmodernism, that is; the universality of individuals is already possible within the modernist structure. Universality of individuals is not a position which is overlooked by modern science but which is necessarily ignored by the capitalist modern organization. Therefore, in terms of scientific knowledge, postmodernism does not represent a more advanced scientific approach than modernism. Furthermore, that is not the main issue. The main issue rather rises from the difficulties imposed on social life by scientific and economic parameters which seem to contradict with each other within the totality of modernism. *The conformist socio-economic order on which Modern West rests requires standardization of social life*, which leads to the critique of modern scientific approach. In fact, for what

purposes knowledge is produced and how it is used is independent of modern scientific method itself. In conclusion, in postmodernist understanding, there is no consistency between criticism of modernism and the subject matter of this criticism

## IV. Objectivity of Scientific Knowledge

The critique of modern scientific method should be concerned with objectivity in the process of obtaining knowledge as much as it is directed towards the method itself. Modern conception or knowledge is essentially based on objectivity maintained by the method. Attaining objective knowledge through method is not possible only by assuring the objectivity of the process of obtaining knowledge, that is; objectivity of the research. It is also necessary to maintain objectivity of different stages that may be external to the research process although they are related to knowledge itself such as for what purposes the knowledge is obtained, for whom it is presented. Postmodernist critique may be justified in this respect.

Modern logic considers knowledge necessary for both science itself and the order of social life. Nevertheless, at the present stage of modern life, the quest for social order seems to be only an assertion which has not been able to realize itself in practical life. Such an order, rather than being directly related with the scientific method itself, is a result of the process of enlightenment initiated by demands of modern process and hence the knowledge revealed. Even if knowledge is objective due to its reference to the method, it may be non-objective depending on the process of obtaining knowledge as a whole. The fact that the analysis of *what the objectivity is founded upon* is also necessary must not be overlooked. Although the problem is not stated as objectivity of process as a whole, this problem serves as an incentive for the critiques charged against modernism. The demand of West for conformism has resulted in disappointment of expectations from the modern objective science and led to the development a (postmodern) counter-reflexion.

Historical and social context above all determines to which sphere research or need will be oriented, in other words, in relation to what the knowledge must be discovered. Since the sphere of knowledge to be discovered or with which dimensions of life knowledge is to be concerned is predetermined, *there is already a given positioning of the knowledge to be attained* for both scientists and *ordinary people for whom knowledge is presented within definite formats*. "For instance, the increasing prevalence of knowledge in the 17$^{th}$ and 18$^{th}$ centuries, of society in the 19$^{th}$ century and of depression in the 20$^{th}$ century within philosophical circles is the product of historical and social realities of the time" [8]. In this sense, the field of knowledge to be attained is already pre-determined/given, as much intentionally as unintentionally, to the exclusion of researchers to a great extent. However strongly a field of knowledge is emphasized to be a choice of the researcher himself, the researcher would not able to make an objective choice so long as he is unable to position himself outside the historical and social conditions he is involved in. And it is impossible for the researcher to take such an independent position. This is where the necessity to discuss the problem of objectivity of scientific knowledge at more than one level outside the active research process manifests itself.

*The relation between scientific knowledge and objectivity* should be discussed with reference to different points such as:

a) determination of the field of knowledge to be discovered, in other words *in relation to what knowledge is to be discovered*: *the objectivity of the choice of knowledge* (*which knowledge*)

b) *how knowledge is obtained: the objectivity of the method of knowledge*

c) *for what purpose knowledge is obtained: the objectivity of knowledge policy*

*d) how knowledge is presented: objectivity of communication of knowledge*

Nevertheless, the objectivity of scientific knowledge is usually discussed in terms of the method of obtaining knowledge (b) and how it is presented, in other words, the communication of knowledge (d) whereas almost no reference is made to the which knowledge is searched, that is to say, to the existence of incentives for searching a definite field of knowledge and where they rise from (a) or why knowledge is obtained (c). The fact *the search for objectivity of scientific knowledge is not oriented to the choice of knowledge and knowledge policy results in positioning of knowledge necessarily only as a product obtained by a methodological procedure* (revealed and presented methodologically).One of the arguments that shape the major pre-supposition of this work is this positioning.

The objectivity that the positivist and objectivist modern approach claims to maintain relying on the method, in fact, cannot be achieved just because of the method-centered approach (b) to objectivity largely at the expense of the neglect of the mutuality between a and c. The relation between a and c is particularly important for revealing why a specific kind of knowledge evolves in certain political and socio-economic context. Disregarding this relation would not be a democratic attitude since it may deter possible suspicions about a certain set of knowledge. It is also incompatible with the dialectical thought based on infinite relations. The dialogue among these four areas related to scientific objectivity is basically necessitated by the dialectical nature of the method. Dialectical method assumes the interdependence and complementariness of all the parameters of the scientific knowledge [9].

The factors that direct towards/motivate to a definite set of knowledge (a) cannot be always controlled entirely, meaning that only some of the reasons can be recognized and when they can be, it is only partially. However it is also reasonable that there are absolute relations between repulsive factors (a) and attractive factors (c) for a definite set of knowledge.

When objectivity of knowledge does not rely on dialectical

method as it should do, it turns out that particularly the relation between a and c does not become a matter of knowledge for ordinary people who use this knowledge and the capacity of the new knowledge obtained to represent the contextual reality reduces. It means that knowledge turns into a means for reproducing reality as it is. Here at least two problems rise. The first is related with what the reality is and how it must be defined while the second is about the inability to transcend the reality. The responses to the modernist conception which is said to lead to the perception of the reality as closed within itself, in other words, the responses to the second problem are shaped from the point of view of the postmodernist reflexion.

## V. Postmodernist Reflex Against to Modernism

Realist philosophy is analyzed in terms of 4 categories [10]: objective reality in the sense of truth, subjective reality, absolute reality and relative reality. This paper assumes beforehand that scientific knowledge is necessarily historical and social. Therefore it presupposes that "the categories (schemas) in human mind, rather than being universal categories, are created by, filled with and rendered meaningful by social world of meaning" [11]. To put it differently, in this paper reality is presupposed as relative reality.

Intellectual knowledge relates to the reality in a mediated manner and hence has already a relative autonomy [12]. The autonomy of intellectual knowledge, in other words, the universality of the individual is essentially independent of modern/postmodern or other possible approaches. Postmodern understanding misses out the relative autonomy of intellectual knowledge and hence disables itself from grounding its critiques against the modern method on a sound basis. The modern method which tries to apply the assumptions based on positivism and objectivity to the objective reality is open to criticism in many respects. However it is impossible for the modern method to disregard the intellectual sphere since it is able to attain objectivity only through this sphere. The disregard of the modern method for the intellectual sphere cannot be the result of the method itself but rather of the biased choices of those using the method and benefiting from its outputs.

The relation of postmodernist reflexion to reality, as it is usually presupposed, does not constitute a real opposition to the relation of modern reflexion to reality or does not transcend it. To put it differently, postmodernism cannot get closer to its ideal of creating independent individual universes (individuals). In essence, with its discourse characterized by domination of individualities, postmodernism tends to confirm inability to control the reality which modernism claims to do relying on a method, by leaning itself on the theories of quantum, relativity and indeterminancy and hence denying the possibility of science and method [13]. On the one hand, however, these *theories in physics and mathematics have been put forward on the basis of a method; on the other hand they put emphasis on the impossibility of causal, absolute and stable knowledge*. *These theories reveal that the main problem must be looked for not (only) in method but in constitution of knowledge.* In this sense, the potential of these theories in opposition to modernism has been exaggerated since for modernism knowledge is already falsiable and discontinuous.

In this case, reference of knowledge to the general and universal is not a necessary outcome of the method. Knowledge should be referred to contextual reality. *The knowledge may represent the reality to which it belongs truly so long as it has the capacity to explain that reality in terms of variety of relations it involves.* For knowledge to have such a capacity is related with where and how the objective position taken in the obtaining of information is employed, that is; with modern dialectical method. In the particular case of this paper, dialectical method is linked to the settlement of dialogues among 4 categories/ of objectivity (parameters).

Positioning of knowledge as general and universal is mostly an outcome of the conformist understanding, often shaped by the interests of individuals/groups, especially politicians, benefiting technically from science. *The essential problem is how scientific knowledge is referred to social field rather than its structure or modern character*. How knowledge is operated in the social field is one of the major sources of social unrest stemming from inequalities. The insufficient employment of objectivity unintentionally (without appeal to dialectical method) at the stage of obtaining information to be turned into knowledge will inevitably lead to referring of an inadequate/false knowledge to the social field. Almost all of the quantitative researches end up with such a problem, although they do not intend to do. And in some researches, objectivity is intentionally attached to the method and in this way the real context is missed out due to the existence of parts the objectivity of which is not maintained. The fact that *the unequal class composition of modern socio-economic context determines how the scientific knowledge is to be used leads to direction of the critiques rising from this social structure particularly to modernism as a whole and hence modern scientific knowledge*. That is; modern power structure/relations are treated in the same way with modern scientific method. Surely modern understanding is a totality in itself and there is a certain relation of dependence between power relations and science in this understanding. However they are only dependent, which does not mean that this dependence or relation should always be linear. It would be rather too ambitious to argue for such an abiding linearity.

The (postmodern) anxiety about focusing on the facts themselves also derives from people's perception of facts as if they are the results of a necessary development that they cannot hinder and hence about which they can do nothing [14].

## VI. Quantitative and Qualitative Methods in Terms of Dialectic Method

Social sciences obtain knowledge by means of their methods [15]. It was August Comte who first claimed in 1848 that it was possible to propose explanations based on facts, evidences obtained by means of scientific method as well as universal laws on social regularities. Such a definition of scientific method which is characterized by the empirical

(factual) and objective quality of scientific research continued to be effective till the second half of the 20th century [16]. It was followed by the development of quantitative research methods on the basis of positivist paradigm[17]. Nevertheless, in qualitative research which is a means of penetrating into the inner world of people, the method is dependent upon the context of facts and hence is flexible, and it does not aim at reaching scientific laws [18].

The focus of quantitative method on not the context of facts but on facts themselves and moreover, the impossibility of repetition of history renders the knowledge obtained through this method valid only here and now. However the quantitative method has no further claim than that. Even if the aim in quantitative methods is to find out certain stabilities (scientific laws), these are stabilities that may be valid only contextually. Both methods are unable to produce knowledge independent of the context. However, in qualitative methods, elaboration of the relation of facts to the context enables the knowledge obtained to refer to the future. Revealing the relation of facts to the context basically means to have a detailed knowledge of the functioning of these facts in structural terms. As a matter of fact, it becomes possible to make consistent anticipations about functioning of these facts in various (present and future) contexts by virtue of the availability of a structural analysis on this functioning. Therefore, the knowledge obtained through qualitative methods also represents the knowledge based on structure (the structure of functioning).

The endeavor of modernism to find out laws that explain the regularities on the basis of cause-effect relations (by the quantitative method) and hence to attain truths is the target of most significant and justified criticisms charged against it [19] . The illusion of a world framed with fundamental truths is essentially derived from the assumption that human mind is able to perceive objects objectively [20]. However, as Francis Bacon indicated in the 50th Aphorism in Novum Organum, human mind attributes its own qualities to the objects facing it functioning like a rough mirror which distorts and disfigures them [21]. For this reason, real objects and knowledge are determinable in only certain limits of possibility [22]. It should be understood from this fact that knowledge is not a truth to be discovered but instead is a matter of interpretation (construction) and therefore it may be different for every individual and cannot even be constituted by a definite individual permanently in the same way. Nevertheless, the mistake of postmodernist critique lies here: There is a dialectical relationship between the knowing consciousness and the known [23]. Even if it is defined as a construction, the postmodernist understanding disregards that the one who builds the construction is integrated and interactive with a certain context (dialectic) and the individual is almost exalted as an autonomous being outside the context. In fact, the individual himself is shaped by the context due to this dialectical relationship and hence his constructions bear the mark of this relationship (causes). The mistake of postmodern understanding does not lie in its dismissal of the principle of causality but in its disregard for the fact that this principle can only exist as a universal concept and will always be limited with possibilities and be continuously renewed.

The main issue here is that both modern and postmodern understanding overlooks the dialectical method. In respect of knowledge, there is neither ideal object nor ideal individual. With regard to knowledge, both objects and individuals are continuously changing realities that affect each other. In this sense, there is nothing like ideal knowledge (modern). Possibilities and relativity are not theories that are able to transcend the principle of causality as postmodernism considers them to be but they are rather theories destructive of absolute and single causes. Nevertheless, modernism already criticizes itself in terms of its strong tie with positivism.

## VII. The Research

### A. The purpose of research

The purpose of reserach is to reveal the conclusions/facts of the researches in (social) sciences and how their relation to the reality is established via (online) media.

### B. The research design

Media is considered as a means through which ordinary people may have access to scientific knowledge. For this purpose, which field knowledge belongs to (a), its method (b), for what it may be functional (c) and how it is to be presented will be demonstrated. In other words, the relation between scientific knowledge and the categories of objectivity (or parameters) aforementioned will be deciphered. This will help to see whether scientific knowledge has the capacity to represent the reality in a true manner.

### C. The method of research

The scientific knowledge covered in the media will be converted into data by way of content analysis. The data consists in the categories of objectivity of scientific knowledge.

### D. Sample

The national daily Birgün between the 1st of January and the 1st of June. The scientific news included in Birgun newspaper's (online) science archive from January 2010 to June 2010 have been evaluated This newspaper is especially selected due to its highest rate of frequency and coverage of research and science news in Turkish national media despite its low circulation.

### E. Hypothesis

The relation of the facts of quantitative researches in social sciences, as revealed via media, to the reality is not established.

### F. The results of research

The categories of objectivity mentioned in the paper are arranged in a table and the scientific news covered by media is also inserted.

TABLE I
THE CATEGORIES OF OBJECTIVITY IN THE NEWS

| Numbers of News | NEWS TITLE | The field of knowledge | The method of obtaining knowledge | What is proposed by means of knowledge (functional aspect) | The way knowledge is presented |
|---|---|---|---|---|---|
| 1 | Does Power Spoils Character? | Psychiatry-Politics (Leadership) | The diagnosis of conceit syndrome | That leaders are not conceited | The criteria of diagnosis used by the detectors of the syndrome |
| 2 | Effect of Fear on Decision-making | Economy | Clinical researches | That when they pay attention to the motivations of individuals, economists are able to evaluate the decisions they make better | Research results and the opinion of an economist |
| 3 | Thorny Bed of Oblivion | Politics (Memory and Power Relations | Commentary of the Psychiatrist | That negative political stages in Turkey are forgotten due to lack of memory and action but it must not be so | Examples from mythology-literature |
| 4 | New Competitor to Hologram from Turkey | Technology | Commentary of the developers of the technique | Technique that maintains document security against forgery and physical damages | Accounts of the developers of the technique |
| 5 | Ancestors of People Said to be Species in Danger of Extinction | Genetics | Genome researches | Validity of the evolution theory | Research results |
| 6 | The Trivet of Sexual Violence: Silence, Embarrassment, Guiltiness | Sexuality | An opinion article in the context of social psychology | That the cultural patterns (of the patriarchal structure) leads to rendering of women to a secondary status in terms of gender and moreover, in this way the guilt of sexual violence is attributed to women | Commentaries on the subject |
| 7 | Is there anybody there? | Health and Technology | Clinical researches | That technology may be used in a manner to enable to communicate with people in persistent vegetative state but it may also bring some ethical problems with itself | Research results |
| 8 | No Mercy for the Bad | Psychology (Empathy) | Clinical researches | That propaganda is effective in reduction of empathy and over people's social behavior | Research results |
| 9 | Scaring Genetics | Genetics and Psychology | Clinical researches, genetic researches | That phobia may be treated with reference to genetic properties | Research results |
| 10 | Musical Therapy Enables to Speak | Health | Clinical Experiments | That music is effective over the speech centers in brain | Experiment results |
| 11 | Flexibility of Brain | Health | Clinical researches | That brain has the capacity to renew itself | Reserach results |
| 12 | 5th International Anti-Homophobia Meeting Starts | Sexuality | Program announcement | The necessity of expression of opposite views collectively | Meeting program and content |
| 13 | Why Does Nicotine Chooses Brain rather than Muscles | Health | Clinical researches | That other kinds of diseases may be treated through nicotine receptors | Research results |
| 14 | My Brain Wants to Affirm You | Society (Social Behavior) | Clinical researches | That behaving in conformity with a group makes one feel good | Research results |
| 15 | Brain Knows Whether Accident or Suicide | Psychology-Physiology | Clinical researches | That every region of the brain is in relation with each other and in this way, as a result of a pressure on any region of the brain, the data in this region may be obtained from other regions as well | Research results |
| 16 | Fear Politics | Genetics-Politics | Clinical researches | That genetics lead to certain political activations | Research results |
| 17 | Right Address: Psychiatry | Psychiatry | Definition essay | That various divisions of labor in the mental health field must be known | Definitions |
| 18 | The Future of a Child Whose Body and Spirit is Exhausted is Wounded as well | Child Abuse | Cases from Turkey | That child abuse inhibits healthy development of child | Expert opinions |
| 19 | You Should Remember This | Psychology-Physiology | Clinical researches | That activity changes are seen in definite regions of brain in intellectual repression and remembrance processes | Research results |
| 20 | Racism Vanishes as Social Fears Vanish | Genetics-Behavior | Clinical researches with genetic base | That racist prejudices have biological origins | Research results |
| 21 | Scientists Discovered Mammoths' Hemoglobin | Genetics | Genetic researches | The importance of harmony with nature | Research results |
| 22 | Even Asocial Turtles Learn from Each Other | Animals (Turtles) | Researches on animals' learning behavior | That social learning makes living in groups easier for animals | Research results |
| 23 | Social Peace and Identities | Psychiatry | Congress announcement | Creating Demand for Participating into the Congress | Congress program and content |

Between January and June 2010, 23 news in total have been found in the science archive of Birgün newspaper which has a wider coverage of news with science content in Turkish national media. 3 of the news (5, 21, 22) consist of information which will have no direct influence over ordinary people's life. Surely each individual's way of evaluating knowledge and mediating it with his life would be different. However, this paper puts emphasis on the significance of methodological information's contribution to the individual at social and democratic levels. In this respect, the 3 news bears no importance.

Among them, no. 1, 5, 7, 8, 9, 10, 11, 13, 15, 16, 17, 19, 20 21, 22, 23 news is concerned with psychiatry, health and genetics. No. 5, 21 and 22 are not directly related to individual's life while no. 11, 13, 15 and 19 are scientific news that are rather concerned with the world of science. No. 17 includes definitions concerning the general public and therefore bears news-value although it does not consist of knowledge obtained by means of a scientific method. In a similar way, no.23 is an announcement. No. 16 and 20 are presented with research results, in other words they have scientific grounds. However the knowledge they include is more like a knowledge that people have to accept. The announcement that the genetic structure is decisive in the last instance may reinforce the fatalist frame of mind of public in general especially in the case of Turkey. Certainly this fact should be discussed in relation to not the science world but the media. Nevertheless, the resources through which the public receives news directly are at the same time the resources through which the public have access to scientific knowledge (that is media). No. 7, 9 and 10 are related with health aimed at giving hope to people.

No. 8 includes knowledge that enables people to politically become conscious. The quality of knowledge searched for within the scope of the research is included in the news and is also presented through scientific researches.

No.2 consists of knowledge obtained from scientific researches and concerns not public in general but economists.

No.3 also concerns general public and is aimed to raising consciousness but it is not based on scientific researches. No.4, like No.8, is the news based on scientific researches which tries to enlighten the public.

No.6 and 18 are important in terms of bringing into agenda the problem of the secondary status of women in Turkey (6) and the increasing number of child abuses according to the news covered (18). However the news does not include scientific researches and only covers expert views on the issue. Such a deficiency prevents conception of the situation from a more objective point of view.

No.12 is in the form of an announcement but raises public's consciousness underlining the importance of a taking a collective stance. The attempt to raise consciousness in the news is not supported by scientific researches.

Despite depending on scientific researches, No. 14 has a content which only calls people to accept in a similar way to No. 16 and No.20.

As a result, in the 5-month period of time, there are only 5 news (4, 7, 8, 9 and 10) which concern the public and raise their consciousness and depend on scientific researches at the same time. Among them, only No.4 is based upon researches in the technical fields while the others rest on clinical researches.

The number of total news (23) is low considering the social, political researches conducted in the world and Turkey. Furthermore, only 16 of 23 news in the science archive depend upon scientific researches (in the section of the way of knowledge is presented, that is d section). However, as seen in the table, all of these researches, except for one (No.4), are clinical researches and experiments.

All of these news except for 7 of them (3, 4, 6, 12 and 17) are of foreign resources. Among these 7 news, the only news based on scientific research is No.4. No.4 is considered as scientific due to its coverage of a technical discovery.

In conclusion, it is understood that the researches or scientific knowledge in social and political fields were not covered in the 5-month period of time. No.4 is scientific in technical terms.

This tabulation is intended to display the relations between the 4 points that are stated in this paper and the objectivity of each of which should be maintained. This paper emphasizes that it is also necessary to consider the relation between the objectivities at 4 points, in other words, it bases itself upon the dialectical method.

### *G. The interpretation of research*

In this paper, it has been stated before that the quantitative methods have been employed more frequently than qualitative methods while the former maintains objectivity only on the basis of the method. This content analysis carried out by taking the (dialectical) correlations between the categories (a, b, c, d) into account indicates that the researches conducted by the quantitative method which has a direct effect over the social field have not been included in the sample selected. And despite being based on the modern method, the clinical researches in the fields of health and genetics are not directly concerned with the social field. Therefore none of the news in the science archive within the scope of the sample involves the results of social quantitative researches intended for informing people. Nevertheless, the absence of researches or research results in the qualitative fields is much more challenging.

This paper intends to demonstrate that the quantitative method by itself is not sufficient for the maintenance of objectivity of (social) scientific knowledge. However no reference to direct social field researches oriented to informing people has been found. This is a more serious problematic matter than the problem of objectivity and method in science. Since the scope of the research is restricted with media, this does not mean that scientific researches have not been conducted. It does mean that even if the researches have been conducted, since ordinary people do not have direct access to this kind of knowledge, resources like media have

come to bear a scientific meaning for them. And hence the rise of the problems stated in this paper in relation to objectivity and method is observed.

To evaluate the categories of scientific objectivity in the media as a whole,

In which field scientific knowledge is obtained: Health

Is scientific knowledge obtained by an objective method: Clinical (yes)

For who is scientific knowledge obtained: Not for ordinary people

How is scientific knowledge presented: In company with research results (in a language accessible by not people but by those with clinical knowledge)

As the scientific researches must ensure progress in relation to science itself, it should be also possible to obtain social and individual benefits from the results of these researches. However the research results received via media is seen not to have such ability. Therefore it is observed that no enlightenment process could be built in either a modern (generalized standardized knowledge) or a postmodern (prioritizing the individual) sense. Within the scope of this research, it is revealed that the conflict between the postmodern and modern on the basis of quantitative and qualitative methods is only a discursive conflict. Nevertheless, the modern methods still have a higher level of usage despite the increasing prevalence of the postmodernist discourse (and hence the increasing quest for such a method).

## VIII. Conclusion

In relation to modern scientific knowledge, objectivity should be discussed in terms of the field of knowledge to be searched for, for what/whom knowledge is constituted and how it is presented. In the critique of scientific knowledge based on modernism, there is no mention of objectivity of the categories (parameters) aforementioned and the relations between them. Instead, poststructuralist understanding argues that knowledge is a (teleological) construction [24] and hence modern scientific knowledge is constituted in order to maintain social obedience. The discourse of postmodernist conception that grounds this justified claim on a discussion of the totality of the modern conception rather than the objectivity of modern science is characterized by disregard for the dialectical method. Explanations of modern and postmodern conception which both disregard the dialectical method result in an inability to pose the major problems about knowledge in linguistic terms.

In the transition from scientific field to social field, the shift of focus onto conformism in modern science, in other words; the endeavour of the science to maintain its subjective development for political power and the elites has led to the failure of modern scientific knowledge. Postmodernism, on the one hand, tries to ground itself on as a wide and relative perspective as to include each of the individuals, and hence, ending up with an eclectic and inconsistent perspective [25]. On the other hand, it functions like a veil concealing the critique of the social because of its disregard for the social which has a fundamental contribution to the constitution of the categories (schemas) in human mind [26].

Postmodernist thought and knowledge does not seem to be able to initiate a fundamental structural transformation since it also depends upon the outputs of modern methods (contingency, relativity and indeterminancy). Furthermore, postmodernism's purpose is not compatible with its attempt to realize a structural transformation within the capitalist mechanism. Even though postmodernist thought thinks of restricting or abolishing the circle of capitalist pressures that have appeared with the development of modernism, the fact is that modernism was born out of the needs of capital and the rise of those capitalist pressures have been ordered to modernism as a requirement of the capitalist functioning. In a similar way, postmodernism's mission tending to overcome these pressures and the structural inconsistencies with which this endeavor invested leads to a perception of postmodernism as a current means of capitalism. It is because each individual's constitution of an individual universe as in the case of postmodernist thought means a quest for a chaotic environment. This kind of a choice or creation of an intellectual confusion will basically serve to consolidation of the status of a happy minority enjoying conformism. On the one hand, postmodernist understanding hopes to transform the unhappy majority created by modernity and make them develop identities. On the other hand, it has no claim to transform the identities of the happy minority enjoying conformity. Therefore, *just like modernism, postmodernism also defines the problem as the people unable to solve the problem and hence codes the focus of the matter in methodologically wrong terms*.

Postmodernist understanding adopts a discourse on the reproduction of social order [27]. However such a discourse contradicts with the idea of pluralist and de-centered freedom [28]. The postmodernist idea of re-construction of identities in a chaotic environment and the postmodernist attempt of constitution of a (social) order do not seem compatible with each other. Furthermore, to rely on a chaotic environment means to place the main emphasis on not individuals but on the facts surrounding the individual. Therefore, the idea of such a chaotic environment and that of a social order held together will serve not to politicization but to a-politicization of individuals since it will deepen their intellectual confusion. Environment or context is decisive for human beings and facts, which, however, is overlooked by the postmodernist understanding.

On the other hand, modernism, as stated by Yaraman, is focused on the idea of social progress and therefore it inhibits individualism as much as traditional society and replaces individualities with universality although it is characterized by individualism [29]. As a result, *the major problem is where and how modern science is employed.* Without deciphering this issue, the critiques to be charged against the totality of the modern conception are doomed to remain inadequate.

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