

## THE CHALLENGE OF CRITICAL GERONTOLOGY: THE PROBLEM OF SOCIAL CONSTITUTION

*Journal Of Aging Studies 1991 (5), p. 219-243*

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### ABSTRACT

This article focuses on the problem of social constitution which is seen as the principal theoretical challenge that is implicit in the different approaches to "critical gerontology". The acknowledgement of a social constitution of both gerontology and aging contrasts with the conventional understanding of gerontology, which is dominated by an idealized concept of natural science as the representative of "objective" knowledge. In an analysis of recent developments in the philosophy, sociology and history of science it is shown that the problem of social constitution can no longer be avoided in theoretical reflection on gerontology. The theoretical and practical relevance of this problem is illustrated at different levels of analysis. These levels correspond partly with the different traditions that inspire the approaches to "critical gerontology".

The study of human aging faces a complex field of tension between several poles. On the one hand, there is the biological knowledge that the aging process entails effects that will eventually be shared by everybody who lives long enough. On the other hand, we know also that institutionalized forms, psychological characteristics (Schaie 1988) and even physiological manifestations of aging (Maddox & Douglas 1974; Dannefer 1987) show considerable variation depending on cultural, structural and personal factors. This range of variation should not be directly associated with individuality and freedom of choice. Looking back on what seems to be a personal life history, it may become clear that many important developments took place according to a socially programmed life course (Kohli 1985, 1986; Meyer 1986; Baars 1988). The culture in which a person lives may also know or allow only specific models for further aging and for dealing with the opportunities and problems that are associated with it. At what age people will be regarded as "old" and what the consequences of this transition will be depends for an important part on social processes that are beyond the immediate control of the individual and that are therefore often taken for granted. Moreover, the socioeconomic position of a person may limit considerably his or her practical possibilities to shape his or her own process of aging. Critical reflection about the restrictions of human aging extends into a critical reflection about gerontology when we realize that the study of aging plays its own role in this process. Gerontology can enlarge the possibilities of choice by showing that certain models of aging are relative to constitutive social patterns and how they can be changed or loosened up. But gerontology can also work the other way: "improve" the functioning of a certain model of aging and monopolize it by implicitly or explicitly presenting it as the only possibility that "nature", "society" or "reality" permits.

The study of aging bears a different relation to its subject matter than a science like astronomy. The movements of stars and planets will not change (although their meaning will) when our theories, observations and actions change. Consequently, we don't go into discussions whether the earth should turn otherwise, so that some people get more sun and

others a little less. Processes of aging are constituted differently: human beings are already the actors of their ageing experience, even if they are not aware of it. They cannot step out of the social reality in which they live, but they are not determined by it. Its quality can be changed and improved if it is clear how specific forms of aging are constituted by specific social processes that can be changed.

## I THE PROBLEM OF SOCIAL CONSTITUTION

Critical questions have accompanied the growth of gerontology and have developed into alternative approaches during the last decade (e.g. Cole & Gadow 1986; Estes 1979; Gubrium & Buckholdt 1977; Guillemard 1983; Myles 1983; Moody 1988 a, 1988 b; Phillipson & Walker 1986, 1987). The ways in which these approaches are articulated vary considerably, depending not only on the discussed practical problems discussed but also on the theoretical perspectives that are used (see part IV). Still, the different critical approaches appear to be united in common opposition against "mainstream" gerontology. Recent programmatic articles about the tasks of a "critical gerontology" (Phillipson & Walker 1987; Moody 1988a) formulate this opposition explicitly. In this respect they continue the plea for a "radical gerontology" that was formulated a decade earlier by Marshall & Tindale (1978).

The conflict between conventional gerontology and its critical counterpart is a conflict about the kind of questions and problems that should be taken seriously. "Critical gerontology" is, in a way, a collection of questions, problems and analyses that have been excluded by the established "mainstream". The need for a specific program of "critical" gerontology arises *because* and *as long as* certain questions are banned from official discourse. The alternatives are inspired by heterogeneous critical traditions but form a common front against a theoretical self-understanding of gerontology, which is dominated by an idealized concept of natural science as the representative of "objective" knowledge. In this last perspective only the kind of critique that aims at a methodological improvement of "objective" knowledge is accepted. Consequently, all critical questions regarding the meaning, uses, aims and material interests of the knowledge produced disappear from the discourse. In this way, a theoretical self-concept that may be acceptable to certain areas of the natural sciences, serves as a problematic *internalist* ideology for gerontology as an applied social "science".

Critical gerontology can be understood as a study of aging that takes methodological problems seriously but doesn't restrict its criticism to such issues. It includes in its critical analyses normative questions, material interests, the functioning of gerontology itself and other factors that are regarded by the mainstream as only of "contextual" importance.

### *The problematic social "context"*

Introducing a "context" into the diagnosis of problems of the aged doesn't imply that intellectual work is unnecessarily complicated with all kinds of irrelevant factors. Several instructive and detailed analyses have shown that it is possible to clarify how certain processes and structures contribute decisively to the social problems of the aged. An obvious and extreme example: hypothermia in aged people is not caused by an increased and incurable sensitivity to lower temperatures, but by insufficient funds to pay for adequate heating (Wicks 1978). A further analysis of many problems of the aged leads

inevitably to the various forms of institutionalized social inequality; both at the level of the lifeworld and at a structural level:

*-The distribution of material and cultural resources.* The contraction of the Western welfare state in recent years (Guillemard 1983) and the expected problems concerning public pensions in the years to come (OECD 1988 a,b,c; Walker 1988) affect especially those categories of elderly people that have a weaker socioeconomic position.

*-Negative cultural images of aging* create an "ascriptive" inequality between the different age groups. Elderly people who can no longer live up to certain idealized and internalized images may get into serious identity problems or enjoy their old age less in consequence (Hohmeier & Pohl 1978; Rosenmayr 1983).

*-Discrimination of women* may result in a cumulation of negative factors in old age. The commercial overevaluation of certain models of young female beauty (Itzin 1984) has as its counterpart lesser chances on the labor market outside a specific territory, and a subsequent devaluation of women as they grow older. Some important effects are again: less entitlement to private pensions and less experience in dealing with authorities in situations of need (e.g. Groves 1983; Herzog et al. 1989).

*-Discrimination of ethnic minorities* will affect their chances during their whole life course (Sorensen 1975) and may add to the problems of deprivation in old age.

The negative effects of these different processes may cumulate (Rosenmayr 1983) in certain categories of elderly people, such as poor older women. Such processes have led Dannefer(1987) to explore the "Matthew effect" (1) in relation to differential aging.

### ***Methodology as internalist legitimation***

To treat such constitutive social inequality as a context that is not of immediate relevance to the problems under consideration is not only shortsighted, but may make problems worse, because the social systems that are responsible for many problems of the aged may use gerontological research as a legitimation of their policies. Therefore, critical questions arise also about the identity, social functions and effects of gerontological work. Does gerontology unreflectingly reproduce social prejudices or does it reproduce through its activities social inequalities related to class, gender and ethnic origin? What are the images of aging or the social policy concepts implicit in gerontological theories that only seem to be neutral or descriptive (Phillipson & Walker 1987)?

As much as every gerontologist is an aging person, gerontology is a part of the societal relationships that are responsible for many social problems of the aged. The material and cultural resources that feed gerontology tie it to the subject matter that it tries to study "objectively". The theoretical challenge of critical gerontology is to give an analysis of this complicated predicament: the social constitution of gerontology.

### *Critique and constitution*

If we take the principal level of criticism seriously, we must step out of our usual disciplinary involvement and start to think about the study of ageing in a more fundamental way. Also, we cannot limit our diagnostic range to a specific practical problem. And to be able to understand the unity and differences of the various approaches to "critical gerontology", we must finally also refrain from identifying with one of the specific critical traditions (e.g. neo-marxism, social phenomenology ) that are involved. The only tradition we can identify with is the broad Western tradition of *critique*, in the classical sense of a *responsible reflection* about the *constitution* (2) of our intellectual activities. In different ways, this is also what the different theoretical traditions that clash with each other - including the conventional approach - try to do. Starting from this acknowledgement, we can try to understand the limitations, strengths and weaknesses of each position.

In an *epistemological* sense the concept of "constitution" refers to the complicated interplay between intellectual creativity, analytical clarity and receptivity towards subject matter. It reminds us that knowledge is never self evident, but is always "constituted" in a process of focusing attention, giving names to recurrent phenomena that appear to be the same, making distinctions etc. These epistemological processes have been investigated in a critical tradition that was established mainly in the work of Kant. In the subsequent developments in the way constitution was considered, its *social* character (e.g. its intrinsic relation to language) has been more and more underlined, especially in the later work of Husserl (1962) and Wittgenstein (1953). It is one of the intentions of this article to show the implications of this development for gerontology.

The reason that the term "constitution" in relation to social processes is preferred to the term "construction", which has often been used (e.g. Berger & Luckmann 1972), is that "construction" suggests a conscious project that is carried out accordingly. Of course, we cannot exclude the possibility of such a construction, but to assume that this is common, or the basic process, could be called a "modernistic" misinterpretation. The possibility of free choice and construction is something we can try to obtain, not something that we can assume to be always realized. In speaking about a "social *constitution*" of aging, we focus critically on the tendency to treat aging processes that have a sociocultural origin as if they were just natural or biological processes (Horkheimer & Adorno 1979; Baars 1987), as "natural" and therefore as "unchangeable" as our bodily constitution. In this sense, the term "social constitution" aims directly at criticizing those phenomena of aging that are taken for granted, but that are in reality limitations of the different options that aging people might have. The corresponding analysis focuses on the main principles or factors that can be discovered retrospectively as being the most important in shaping the phenomenon under study. The possible benefit of such retrospective analysis is to see what can be learned from it in order to improve our future decisions.

To show the necessity of a theory of social constitution I shall first (part II) analyse the presuppositions of its counterpart: the internalist, methodological self understanding of science. This presupposes, also in the case of gerontology, a traditional positivist philosophy of science that has lost considerable ground during the last two decades. This is not only due to continuous criticism from other traditions (Adorno et al. 1976), but also to developments in the proper tradition in which the positivist position was established and articulated.

This process implies that the questions that are brought forward by critical gerontology

can no longer be excluded from official discourse with the argument that they would endanger the supposed objectivity of scientific work. Consequently, a more independent position of gerontology can only come from the awareness how it might actually be influenced and controlled by various processes that are not accounted for in an internalist view. Next, I shall present a rough outline of a theory of the social constitution of gerontology and its subject of study: aging (part III). Another argument for the necessity of a theory of social constitution is that from such a perspective it is possible to clarify the unity and differences of the heterogeneous approaches to critical gerontology (part IV). A basic concern of these reflections is the *quality* of the *general* perspective on gerontology. It is necessary to leave the traditional guiding idea of "objective science" if we wish to reflect on the meaning of applied gerontological work, or if we wish to obtain a positive perspective on interdisciplinary and cross-cultural studies without depreciating all that deviates from the idealized norm of natural science.

## II THE COLLAPSE OF THE INTERNALIST PERSPECTIVE

Insofar as there is any theoretical meaning or integrative perspective left in the internalist view of "gerontology", it lives on the hope that the gathering of enormous quantities of data will eventually form -per se(?)- a coherent picture of the process of aging (3). This is a methodically naive echo of the traditional positivist hope that all disciplines will eventually, through continued logical and empirical refinement, achieve cumulative and complementary knowledge of their common subject matter, in this case: aging. Is this hope justified? Can the positivist tradition still offer a scientific method that is adequate for *all* kinds of empirical knowledge and, on that basis, offer a perspective in which gerontology can be understood as a multidisciplinary but *integrated* scientific project? And is this scientific basis so solid that questions regarding the material interests, aims, uses and meaning of scientific knowledge can be put aside as "external" rumble? To answer these questions we must inspect two assumptions that have been the main pillars supporting the traditional positivist project.

- A) The epistemological assumption was that the modern *natural* sciences represented, as pragmatically proven by their technological effectivity, the most trustworthy form of empirical knowledge: "objective knowledge". Consequently, a reconstruction of the ways in which "objective knowledge" was constituted could limit itself to a reconstruction of the research strategies of the natural sciences. Scientific workers could safely concentrate on establishing the truth and didn't have to be concerned with the ways in which that knowledge was used, because it was assumed that such "objective knowledge" would per se improve man's fate.
- B) The possibility of such "objective knowledge" was grounded on the ontological assumption of an "*objective reality*" that was supposed to exist: 1) *unambiguously* as one and the same at all times and all places; and 2) *independently* of theoretical constructions, thus serving as an objective touchstone for the improvement of knowledge. This last assumption made it possible to trust that the process of methodological purification would finally produce true knowledge of reality.

A. They were high *expectations* indeed that were used after the Enlightenment to

legitimize the intellectual status and the social priority of scientific work (Horkheimer & Adorno 1979). The systematic deepening and expansion of our knowledge of reality would enable mankind to solve its problems in an efficient way. Thus the progress of science would be the sure basis for the progress of humanity.

Never succeeding to the degree that was expected, scientists were nevertheless warned, in *anticipation* of these results, to guard against the metaphysical abstractions, normativity and subjectivity that still prevailed because of surviving pre-scientific traditions. These might continue to misinform practical decisions as long as science had not presented its solutions, or as long as society had not learned to think scientifically. Such was the message from Francis Bacon's 17th century criticism of traditional idols to Popper's defense of the "Open Society" (1966). The only critical questions that were allowed or necessary were methodological questions that remained within the positivist project. A *limited* view of the natural sciences was allowed to dominate the question of what could really be called "scientific" or even "rational". This title was awarded to those theoretical activities that made technological control possible by exploring the causality governing the subject of study. Of course, this was especially successful where the subject of study was passive and unchanging: ideally, dead natural material. This limited and specific situation of empirical research allowed the most exact results and was therefore idealized as *the* model of science.

It cannot be denied that the logical and empirical refinement that resulted from this process can be useful in certain *types* of research. But the consequential dictation of natural scientific methods for *all* possible domains of human exploration implies a forceful reduction of each studied subject to the presupposed unchanging causal relationships that are typical of dead material (4). Where this reduction turns out to be impossible or leaves too many questions and problems unsolved, this is often not seen as the inevitable consequence of a *different* quality in the subject of study, but as caused by the immaturity and, therefore, inexactness of disciplines that are still "young" ("...the beginning steps..." as Maddox and Campbell state). It might be that these disciplines are only young in their unsuccessful imitation of the natural sciences and have deep, but forgotten, roots in the history of their culture. This is certainly the case in the theory of aging. We may be confronted with new problems, but the historically changing experience of human aging and its cultural reflection are, of course, no new phenomena (Cole & Gadow 1986).

Moreover, the concept of objective, trustworthy knowledge that can be proven by its technological effectivity is not adequate outside the natural sciences. It neglects the way in which the social reality has been and is constantly being transformed by theoretically oriented actions. Whereas technological use of a certain material doesn't change its physical properties, this is different with socio-technologically informed policies. The results of research can have profound consequences for the subject of study. We may think, for instance, of scientifically based restructuring of housing facilities or retirement strategies, consequences of budget studies etc. Such policies may have lasting effects on the well-being of elderly people, their health status or longevity (Phillipson & Walker 1986; Dannefer 1987). Whether a theoretically established social policy "works" successfully cannot be judged apart from normative evaluations. A badly constructed bridge will collapse, but a bad social policy will continue to "work" and have its effects. Such complex interrelations between social theory and social reality require a reflection that is not always needed in the natural sciences.

**B.** Not only in the process of *applying* scientific work, but also in the process of scientific

research itself, "external" factors that are not accounted for in the logic of scientific discovery have been shown to be of constitutive importance. This development reaches into the heart of the internalist position, which turns out to be inadequate as soon as it becomes clear that the outcome of scientific work is inevitably influenced by social factors.

The process in which the traditional idea of uncontaminated "objective knowledge" has been undermined can be traced back most clearly to the influential work of Karl R. Popper (1963, 1968, 1972). Popper tried to hold on as long as possible to the idea of an "objective reality" which was supposed to be discovered systematically by the logic of science, while he acknowledged at the same time the fundamental importance of intersubjectivity in scientific work.

In Popper's "Logic of scientific discovery" we find the beginning (that is, in the tradition of the positivist philosophy of science) of an insight into the *social* character of scientific work. This is articulated for the first time in his 1934 critique of the Logical Empiricism of the Vienna Circle (Popper 1968), which built on the subjective evidence of experience, assuming that the experiential apparatus of all human beings was the same.

Popper broke through the barriers of this supposedly isolated (but at the same time paradoxically universal) subjective carrier of truth, by stressing the necessity of intersubjective control. Subjectively experienced evidence could never, according to Popper, form the basis of scientific theory: "our subjective experiences or our feelings of conviction can never justify any statement" (Popper 1968: 44). The results of scientific work had to be controlled by the scientific community. From this more moderate position Popper argued that the Vienna Circle's principle of verification could not be justified as a scientific method and put forward the principle of falsification as a logical criterion of scientific discovery. But the problem of fundamental intersubjectivity which was rightly posed by Popper, has returned to undermine also his own solution.

As soon as subjective evidence is no longer accepted or, to put it more precisely, as soon as *statements* of observation cannot be identified with the supposed observation "*itself*", the role of theory becomes predominant and can no longer be falsified. Every falsification presupposes a theory that makes the test of falsification possible to begin with. This presupposed theory has been given logical priority only by decision, not because it has been established that this theory represents the "objective" reality. Thus no basic statements can exist that are independent of an enveloping theory. This was acknowledged by Popper: "The acceptance of basic statements is part of the application of a theoretical system" (1968: 111). It has more implications than he was willing to admit.

At every point of research there is a theory presupposed that cannot be put to the test of falsification. Such presupposed models or standards that cannot be put to the test (you cannot pince a pair of pincers with the same pincers) because they *constitute* tests were, in Wittgenstein's later work (1953), called "paradigms". Presupposed theory is rooted in a presupposed language that is shown -in Wittgenstein's language games- to be inherently connected with intersubjective meaningful action. At this point the critique of Thomas Kuhn set in from the perspective of a theoretically oriented history of science (Kuhn 1968).

### ***From scientism to scepticism***

The result of this critique and of the ensuing discussion between Kuhn and Popper can be summarized as follows: (a) the *choice* between paradigms cannot be founded rationally and (b) paradigms function as an orientation and interpretation-scheme that reaches far *beyond* the boundaries of that which has been established empirically (Lakatos &

Musgrave 1970). In spite of the vagueness of the concept "paradigm" (Masterman 1970), it has continued to undermine positivist solutions because it points to the impossibility of strictly separating methodical rules and social factors.

Even Lakatos's theory, the most popular alternative in the Popper-tradition, cannot give a theoretical solution to the problems that are involved. His methodological criteria hardly make strict and clear choices between the alternative paradigms possible. His solution is a pragmatic one: the heuristic force of a paradigm will show which one works best.

"History" has to show retrospectively which paradigm is best and even that cannot be settled definitively (Lakatos & Musgrave 1970). However, as "history" is no unambiguous objective reality, this poses the principal normative question of how to *evaluate* the heuristic force of different paradigms.

What remains of the traditional idea of science is on the one hand *logical* deductions that are founded axiomatically and whose vigor requires the elimination of all empirical content and, on the other hand, socio-culturally "contaminated" *empirical* information. We can never be certain that it represents unequivocally an "objective" reality.

The consequence of discussions since Kuhn's provocative work is inevitable: if paradigms cannot be founded rationally and cannot be distinguished strictly from irrationality, there can be no methodologically controlled progress of science.

Consequently, as long as the only point of reference concerning "rational knowledge" is formed by the lost traditional idea of a strict logic of "objective knowledge", the result of these discussions must be a strong skepticism concerning rational or scientific standards (Feyerabend 1975; Latour & Woolgar 1979; Latour 1987).

This skepticism can be understood as a mourning process: the "objective" and "absolute" hold that was once thought to be available in the strict logic of scientific discovery appears to be lost. Skepticism still holds on to the *idea* of an undoubtable and undisputable foundation as if this is the only possibility. In consequence, as soon as this absolutist idea is given up "anything goes", to quote Feyerabend. Such a skepticism is too easy. We have to look for *better* ways of doing gerontological work, not for absolute truth or absolute indifference. But the dispute about this relative quality cannot be decided on methodological grounds alone.

### III THE SOCIAL CONSTITUTION OF GERONTOLOGY AND AGING

#### A. *The social constitution of natural science*

Even the natural sciences appear to be constituted in a social process and they give information about their subject of study according to these constitutive possibilities (Latour 1987, Rouse 1987). We can assume that other ways of theorizing about nature (e.g. Prigogine & Stengers 1976) and other ways of studying it empirically would give us a different understanding.

This should, however, not be misunderstood to mean that the natural sciences produce only arbitrary constructs, or to mean that there is no material reality at all. That would, of course, be nonsense, because we still cannot walk through a concrete wall and we can still (and must in order to live!) distinguish between (something like) oxygen and (something like) carbonmonoxyde. What is needed is a pluralist interpretation of objectivity, with awareness of the constitutive factors that are involved.

The most adequate short formulation regarding this complicated problem seems to be the following statement: experiments do give information about a material reality outside ourselves, but only in the sense that they refer in an identifiable way (or that they don't refer in an identifiable way) to processes that can be interpreted differently in different



theories (Cartwright 1983, Hacking 1983, 1988, Harre 1986, Leplin 1986, Radder 1988). The experiments themselves do not exclude the possibility of their correct interpretation in other theories. Examples of such simultaneously existing theories are the particle-theory as opposed to the wave-theory of light; the electron-theory of Lorentz as opposed to the electron-theory of Dirac and the oxygen-theory of burning as opposed to the phlogiston-theory of burning (Radder 1988). In the same way, we can see in biological gerontology stochastic theories of ageing existing beside developmental-genetic theories. Social factors penetrate into the biological study of ageing as "environmental" factors, which have been shown to be constitutive for processes of aging in interplay with the genetic factors which determine the limits of ageing processes for certain species (Christofalo 1988).

### **B The double constitution of social "science"**

The theoretical developments discussed above have shaken the traditional status of scientific objectivity, but do not abolish the differences between the natural sciences and the social "sciences". The different quality of the social "sciences" has been understood in terms of a "double hermeneutics" (Giddens 1984, cf. Winch 1958). This rightly underlines that social subject matter is not only interpreted by scientists, but is itself an interpreting activity. Respondents may give answers that depend, for instance, on their interpretation of the research that is going on. The information that is gathered in social research may be changing or ambiguous because responses can vary according to different and changing sociocultural patterns, different and changing styles of responding to questions, limits to what can be asked in terms of content or in terms of the time respondents have available, etc. All this is indeed unthinkable in physical or chemical research. But interpretative actions represent only one level of the process of sociocultural constitution (see III C). Therefore, it is more adequate to speak of a double constitution. This acknowledges that, in social studies, not only theory and research are constituted in a social process, but the subject matter itself consists of constitutive human interaction (Marshall & Tindale 1978). This implies again that both are influenced by relatively independent results of constitutive human actions, which have acquired their own impact in the form of institutions, organisations, systems and structures. Moreover, different audiences and timebound perspectives can change even expert interpretations within the same organizational context (Gubrium 1989). In the study of dead natural material the possibilities to gather cumulative knowledge are different, because the physical properties of their subject matter do not change in the course of history or according to social processes.

### **C The double constitution of gerontology**

The social constitution of the study of aging can be analyzed on different levels, that can only be indicated roughly here. These levels are analytical distinctions, not hierarchical levels of influence or determination. First (a), we can think of direct interaction, for instance, in laboratories (Latour & Woolgar 1979, Knorr-Cetina 1981) and in person-related networks of cooperation (Mulkay et al. 1975). In social gerontology we can observe such networks in some clusters of cross-citation (Marshall 1981). Especially at the level of direct interaction, inspiring persons working in the field can be important for the direction theory and research take (Riley 1988). Such processes could be investigated

in a reconstruction of the influence of important gerontologists. This points for instance to the role of power and authority in the settling of disputes (Collins 1983), which has important age-related aspects (Zuckerman et al. 1973). Next (b), we can distinguish the organizational level: university; governmental institute; independent foundation; editorial boards of influential journals or publication series etc. We can think, for instance, of the role of the Committees of the Social Science Research Council or the National Institute of Aging; or of the role of the University of Chicago, Duke University or the Max Planck Institute in Berlin. What research programs did they favor? Which directions of theory and research were obstructed or neglected? This organizational level develops its own strategies but is also influenced by (c) political and economic processes and structures. This can be seen e.g. in changing strategies for financing research or changing strategies for organizing a university curriculum which have consequences for the topics that are studied and for the way they are approached. One has only to think of the recent growth of research and education in gerontology, in relation to demographic projections. The budgetary preferences of governmental institutions in Holland, for instance, have led to strong support of gerontological research on informal care as a substitute for residential care (Baars & Knipscheer 1989). Such policy preferences influence also the theoretical perspectives that are used. The policy-aim of substitution, for instance, often leads directly to a functionalist analysis, because lifeworld situations are investigated from the perspective of their possible functional equivalence with residential care. The most general is (d) the historical level of (national) traditions in understanding and organizing scientific work.

Focusing on the sociocultural constitution of aging, the subject matter of gerontology acknowledges that aging is first (a) constituted at the level of direct interpersonal relationships and its horizon: the lifeworld (Marshall 1986). The next level (b) consists, for instance, of organizations that are important in determining the lifecourse through their age-related strategies of retirement etc (Kohli et al. 1987), but also of organizations that are meant to help the elderly (Gubrium 1975; Gubrium & Buckholdt 1977). These become more important to the degree that a person is less able to live independently (Phillipson & Walker 1986). This organizational level can be very important in influencing the daily lives of aging people, but is itself heavily influenced by (c) the political and economic processes and structures which determine to a high degree the possibilities those organizations have (Guillemard 1983, Myles 1984, Wilensky 1975). Moreover, there are (d) national traditions of organizing care (Wenger 1989) that blend with historically changing traditions regarding aging (Achenbaum 1985, Conrad 1982), finitude and dying (Ariès 1978).

Especially in developed countries the social constitution of gerontology influences the social constitution of aging, because the results of gerontological work modify the interpretation and structuring of the process of aging. One has only to think of the many statistics that are used in planning medical care, nursing homes, allowances, housing facilities, retirement age, etc. It can be said that important parts of the lifecourse have been structured bureaucratically (Kohli 1985, 1986; Meyer 1986; Baars 1988). In Holland we can observe the tendency of persons outside the workforce to refer to themselves by using the abbreviations of the laws that regulate their financial positions. Policies on aging that deeply penetrate into the lifeworld are often developed and implemented by scientifically trained people and often policies are recommended by scientists. Even if these recommendations only function as a legitimation of politically established policies, their

contribution is of importance and should be made transparent if we wish to gain a self-reflective or critical insight in the social constitution of gerontology and its impact on the social constitution of its subject of study: aging in society.

#### **IV CRITIQUE, CONSTITUTION AND GERONTOLOGY**

In Part I it was stated that an emphasis on the social constitution of intellectual work and its subject matter unites the various critical approaches. This common emphasis explains why they have been expelled from internalist scientific discourse.

The traditions of critique (5) that are discussed below each focus on a specific problem, aspect or level of the process of social constitution. This characteristic focus distinguishes the traditions from each other and explains to an important degree the lack of cooperation between them. Moreover, they all have their own specific concepts and strategies of discussion and analysis that result from sharing a tradition of thought.

It is not my intention to replace these traditions or to show that they are obsolete. They all have their own intellectual momentum. But this goes together with a tendency to absolutize their own focus and to deny the critical force of the other positions ( e.g. Bulmer 1975; Clegg & Dunkerley 1980; Habermas 1987; Matthiesen 1983). To explore the potential of a critical gerontology it may be useful to take a step back and develop a perspective on the way they may be related to each other, starting from their shared emphasis on the (differently interpreted) social constitution of intellectual work and its subjects of study. In this sense I will shortly discuss:

- A. The classical Critical Theory (Adorno, Horkheimer)
- B. The interpretive tradition (Husserl, Schutz)
- C. The structural approach of political economy (Marx, neo-marxism)
- D. The poststructuralist approach (Foucault).

The foci of these traditions correspond partly with the levels of the process of sociocultural constitution that were distinguished in Part III C. Subsequently, we are confronted with the constitutive importance of the Western tradition of controlling nature (A), with the intersubjective lifeworld (B), with political and economic processes (C) and with the constitutive impact of rational institutional control (D). Finally, I will in an intermediary reflection illustrate the necessity to integrate the approaches B and C, with impulses from A and D.

##### **A. The constitutive tradition of technological control**

"Critical gerontology" appears to have borrowed its name (Moody 1988) by analogy with "critical psychology" and "critical sociology" from the tradition of "Critical Theory" as inaugurated by Max Horkheimer and Theodor W. Adorno. This critique is born out of deep disappointment regarding the liberty and justice that the Enlightenment promised to bring with its scientific solutions (Horkheimer & Adorno 1979, Horkheimer 1974).

Consequently, their criticism focuses on the constitutive effects of the persistent Enlightenment dream of total scientific control over nature (Baars 1987). On the one hand, they acknowledge the relative effectiveness of the Western tradition in its technological approach to nature, be it outside us or one of the natural processes in the human body. But on the other hand, they stress that this model of controlling nature has been largely

overestimated and has become the idealized model for rational knowledge as such, not only for understanding nature outside us, but also for understanding the nature of man and the dynamics of the social reality.

This interpretation of a dominant constitutive tradition in Western culture may help to explain why the study of ageing has such a strong natural scientific emphasis; why "fundamental research" is practically identical with biological research (Cole 1989); why medical technology is associated with such status and strategies of power (Illich 1975); and, finally, why the demographic changes that are expected are seen as a gigantic problem that has to be controlled by a planning elite (OECD 1988).

One sided concentration on a desired medical or sociotechnological control tends to drain understanding of the process of human aging (Cole & Gadow 1986; Rosenmayr 1983). To understand the social constitution of this lopsided situation as a result of a dominant trend in Western culture may prevent the idea that this is the inevitable result of intellectual work per se. It is, rather, the historical result of an overestimated specific form which may be changed accordingly.

Investigating the Western idealization of efficient control over nature may also cast light on the traditional superiority of productive masculinity, which has had important negative implications for the evaluation of ageing (Rosenmayr 1983, Rosenmayr & Kolland 1988) and for the position of older women (Faulkner 1980; Herzog et al. 1989).

### ***Second nature***

Not only is the project of controlling nature seen by Adorno and Horkheimer as a specific historical endeavor, but also human nature is seen in a historical and social perspective. According to them, what is presented (implicitly or explicitly) as "inevitable", "normal", "healthy", in short as "natural" is in reality "second" nature. It is not original or a starting point, but the result of constitutive social structures and processes of domination that have their own momentum in establishing and continuing the achieved order of reality.

In social gerontology we can see the relevance of this theme, for instance, in Dannefer's (1984) critique of social theories, in which human development is implicitly regarded as a process of maturational unfolding. It can also be discovered in Walker's (1983) critique of the supposed "lifecycle of needs" (according to which older people would have diminishing needs) or in the still widespread assumption of the "caring nature" of women (Finch & Groves 1983). To reproduce in an uncritical way such ideological metaphors of "naturalness" means to obscure the discriminating career tracks, traditional patterns of family life and the gender specific division of social activities that have constituted these phenomena.

Looking at human aging as a phenomenon of "second nature" does not deny that some dimensions of this process can be and should be studied as natural processes. The biological and medical approaches maintain their own relative right. Human beings are embodied beings and their inevitable biological characteristics (gender, ageing, dying) have far reaching consequences. But what forms these consequences will assume depends largely on the type of society lived in. The relative right of the biological and medical approaches is overstretched when, in line with the overestimated tradition of technological control over nature, patients are reduced to their bodies in medical institutions (Foucault 1975) or when socially constituted problems are treated as biological ones.

The strength of this critical tradition is its penetrating criticism of some fundamental problems of Western culture. Its inherently broad generalizations form at the same time its limitations. Specific processes of social constitution in the intersubjective lifeworld or at the level of political and economic systems are neglected (Baars 1987, 1989). Therefore,

the following traditions have to be integrated into an analysis of the processes of social constitution.

## **B The constitutive reality of the lifeworld**

A second tradition that is of importance for an analysis of the process of social constitution focuses on the constitutive workings of the lifeworld. All human activities (including scientific work) are shown to be rooted in a presupposed common lifeworld: a horizon of meaningfully interrelated realities that make mutual understanding possible (Husserl 1962; Schutz 1971,1974). At the same time, human activity contributes to the common horizon and transforms it. Gerontological representatives of this tradition (that is subsequently influenced by anthropological, social psychological and ethnomethodological paradigms) call their work "interpretive" (Neugarten 1984) or "qualitative" (Reinharz & Rowles 1988) to underline its difference from quantitatively oriented social research. This does not mean that empirical knowledge of social reality is seen as less important (Gubrium & Buckholdt 1977). The empirical knowledge that is produced in this tradition is in a way fuller and shows more of the complicated process of investigating social reality (see III B) than quantitatively oriented social research. In its critical mission this tradition is historically connected with the neo-Kantian quest for an adequate understanding of meaningfully interrelated realities, as opposed to the realities that are studied in the natural sciences. This quest has been documented and structured retrospectively by polarities: quantitative – qualitative; nomothetic - idiographic, "Naturwissenschaft" - "Geisteswissenschaften"; science - humanities. The polarities show to what degree the struggle has been waged against the traditionally idealized natural sciences.

In retrospect, we can observe a striking affinity between the fundamental problems of this tradition and some fundamental questions for the study of aging. Wilhelm Dilthey, for instance, introduced the idea of a meaningfully interrelated historical phenomenon that could only be studied adequately from "within", with reference to the subjective lifecourse. The individual biography was his model for understanding the specific subject of the humanities (Dilthey 1970). Moreover, the understanding of subjective meaning "from within", but by someone else, was introduced by Alfred Schütz referring to the experience of aging together with another person, sharing the time and space with someone else (Schütz 1974). Respecting the constitutive importance of the lifeworld gives us the opportunity to acknowledge the crucial importance of lived experience and human time as stressed by Moody (1988) in his program for a "critical gerontology". If we don't want to limit our understanding of the aging process to a presumed uniform and chronologically determined biological process, we must distinguish what Bergson (1910) has called duration ("durée"), or time as it is experienced, from exactly measured chronological time ("temps").

The strength of the interpretive lifeworld approach lies in this sensitivity for interpersonal meaning structures. This makes it eminently able to detect and avoid objectivist approaches. As such it has been able to give detailed empirical evidence of repressive mechanisms that are relevant to gerontology. For instance, in professional decisions concerning clients' careers (Gubrium & Buckholdt 1977) or in critical analyses of the conversation strategies revealed in the way doctors speak with their patients (West 1984). An important limitation of this tradition could be called its interpersonal reductionism in

its analysis of societal structures. It has the tendency to remain at a microlevel and to neglect relations of power, insofar as these transcend direct interpersonal relationships (Habermas 1987).

For a full understanding of the problems that are inherent in the social constitution of (the study of) ageing, the lifeworld tradition has therefore to be connected with the next critical tradition, which focuses on societal structures.

### **C The constitutive effects of political and economic systems**

Structural relationships of power are central to a third tradition of critique, which has been established in Marx's critique of political economy (1970, 1976). Social problems in general, and also lifeworld problems central to the interpretive tradition, are understood as constituted by societal contradictions in the realm of production. In contrast to the previously discussed position, in this critical tradition intellectual work is also assigned the task of helping to change the societal relationships that are at the root of all social problems.

In a modified and empirically refined version, this tradition is well represented in critical gerontology (e.g. Estes 1979, 1982, 1984; Myles 1983; Olson 1982). It can also be seen in the way "critical gerontology" is conceived by Phillipson & Walker (1987). Their work as part of a broader English tradition of critical social policy-analysis documents the strength of this approach. It has shown how problems like socio-economic vulnerability and dependency are structurally constituted by societal mechanisms of a political-economic nature (Townsend 1981, Phillipson 1982, Phillipson & Walker 1986, Walker 1981, 1983). In line with other neomarxist theories (Offe 1972, 1984) this critical analysis has changed its focus from the sphere of production to a societal sphere traditionally considered of secondary importance: the functioning of the market and the policies of the state. A potential problem of this tradition is its reduction of such personal and interpersonal phenomena as are central to the lifeworld tradition to socio-economic factors. The structural approach tends to explain problems of the elderly in terms of their position in the societal system of production and distribution. This is an important aspect, as can be gathered from the evidence concerning the relationship between education, income and health in old age (Bunker et al. 1988). But the structural aspect is inadequately explained insofar as intersubjective action and characteristics of specific lifeworlds are not taken into account (Kohli 1988). Moreover, the explanation of problems of the aged in terms of a theory of class (e.g. Walker 1981, 1983) is problematic. It makes no longer sense to distinguish between classes according to their relationships to the means of production, because the differences between members of what has traditionally been called the "working class", are tremendous on all other relevant dimensions, such as income or education. The concept of class tends, therefore, in spite of all criticism of functionalism, to become mixed with a functionalist concept of strata (Foner 1988). For a critical understanding of gerontology and its subjects of study it is important to integrate the lifeworld tradition and the structural approach, without reductionism on either side (see IV E).

### **D The constitutive power of rational control**

A fourth tradition of critique focuses on the problem of the social constitution of intellectual work in connection with strategies of power and rational order. One of the

main motives of this heterogeneous tradition is the suspicion that theory (especially in a systematic form) is inherently connected with the exertion of power. A fundamental respect for differences or heterogeneity leads to opposition against its integration in any form, because this is considered to be the liquidation of heterogeneity. This Nietzschean tradition is present in a more recent critique of social science and culture: Foucault's "post-structuralism".

Foucault's work focuses on the constitution of the modern "knowledge of man" as a rational medium of disciplining deviant people in institutions. He offers elaborated historical documentation indicating that disciplines like psychiatry, medical science and criminology were constituted as parts of the modern project of establishing a rational order. Phenomena like madness (Foucault 1965), illness and death (Foucault 1975) are the irrational and uncanny phenomena that gave birth to the systematic investigation of man. This systematic investigation is combined with the control and isolation of the uncanny in clinical institutions. Nowadays such fears may still be recognized in the phantom of a pandemic Alzheimer disease that might terrorize the aging populations of the future (Cutler 1986, 1987).

The different disciplines that deal with aspects of human life are seen by Foucault as derivatives of the knowledge of man par excellence: the medical science. According to his historical analysis it is their socially constituted function to produce - in the form of scientific truth - definitions of health, normality and abnormality. The "normal" individuals are investigated regularly to keep them in productive shape, the "abnormals" are studied scientifically in order to treat the "problems" of their conduct (Foucault 1979). Seen from this perspective, "the elderly" are not an objectively existing category about whom knowledge is gathered. On the contrary, "the elderly" as a category are constituted by the intellectual strategies of gerontology, which function as a legitimation for social practice in institutions that deal with "the elderly".

According to Foucault, it is, moreover, the function of the disciplines of man to define socially constituted problems as problems of the individual that should be treated by experts.

His sensitivity to the constitutive power of modern strategies of rational control warns us of the dangers that can be inherent in well-intended programs of preventive care. In a technologically organized ageing society the elderly may be monitored constantly for reasons of prevention: they might fall, become lonely or depressed. In the same way, unreflectedly presented statistical "normativity" or "normality" may reproduce or reinforce socially restrictive "normality", when statistical research is used, for instance, in planning facilities for the elderly. In order to profit optimally from such facilities, they may have to adapt to the type of behavior defined as statistically "normal".

The limitation of Foucault's critical analyses is the identification of social constitution with the exertion of power and control, which leaves no way out. The radical critique of all intellectual activities as constituted in a Nietzschean "will to power" leaves his work without any positive perspective. The critique leads practically to a dead end insofar as the society is seen as a negative monolith that offers no escape. It also results in a theoretical contradiction, because if the critique is adequate, then its truth must be different from the criticized "truth" of the disciplines. It must itself not be constituted in processes of power, a possibility which the critique itself denies (Dews 1987).

Moreover, these processes of power are treated in isolation from the problem of social inequality. General negative mechanisms concerning the elderly will, by implication, apply to all of them, but it is obvious that different categories of elderly people have different possibilities of solving the problems that may result from such mechanisms or

evading total institutions like nursery homes (Thomson 1983). Such different possibilities of dealing with problems are as little understood when they are seen as 'heterogeneity' as when they are restricted to psychological categories, such as 'coping behavior'.

Societal processes allocate people to different life-tracks, according to class, gender, ethnic origin etc. (Dannefer 1987, 1988). Processes like these shape the structural conditions, possibilities and problems that different elderly people experience as they get older. These processes can only be adequately understood if they are also related to specific lifeworld contexts (ad B) and to structural phenomena like the functioning of the labor market or policies of the state (ad C).

The strength of the poststructuralist critique is its sensitivity for dogmatism and for the controlling or excluding effects of theory. But this strength turns into an isolating weakness as soon as systematic theory and organized aid are, a priori, identified with strategies of power. Starting from these dark visions on both rationality and society "critical gerontology" would be a contradiction in terms. The radical critique undermines not only its own position, but also any possibility of a better gerontology. In much the same way as the loss of an absolutized positivist scientism has led to skepticism, the loss of an absolutized marxist critique of society has led to skepticism in most poststructuralist (and postmodernist) positions. There remains, however, the possibility to continue Foucault's critical analyses without accepting his massive pessimist conclusions. Such critique (e.g. Gubrium & Silverman 1989) might refer to the more open position that Foucault has formulated in several interviews (e.g. Foucault/ Trombadori 1985).

### **E. Intermediary reflection: lifeworld, systems and gerontology**

The general trend in critical theories of the last two decades has been away from grand historical perspectives and radical changes of total societies. Still, a persistent common focus has been to criticize processes of power. A common, but differently articulated theme in the heterogeneous critical approaches has been the way in which social systems and structures dominate or control "persons": discipline and normalize their bodies (Foucault); colonize their lifeworld (Habermas); objectify their intersubjective meaning-structures (interpretive approach); create social dependency (structural approach). Especially in the study of aging, for instance when investigating the bureaucratic structuring of the lifecourse (Kohli 1985) or the experiences of elderly people in residential settings (Gubrium 1975), the tension between the interpersonal lifeworld and systems appears to be of crucial importance. And there is reason enough to include gerontology in this critical interplay (Gubrium & Buckholdt 1977). This is in accord with the common emphasis of the critical traditions on the social constitution of intellectual work and its subjects of study.

To clarify this complicated predicament it is important to analyze the interplay, tension or conflict between individual or intersubjective projects on the one hand and structural dynamics on the other. Why the latter function as they do, and how they may be changed, cannot be adequately analyzed without a critical analysis of the relevant systems and structures, that transcends the perspective of the lifeworld. On the other hand, it can be shown at the level of the lifeworld how structures are changed or reproduced in intersubjective actions (Dannefer 1989). Experiences of constraint and restriction that are communicated in the lifeworld can be used as a source of inspiration for the critical investigation of the functioning of these systems or structures and can serve as illustrative



evidence of their effects.

How this precarious dialectic works out concretely can only be made visible in the reconstruction of specific processes. The relevance of an integration of the interpretive approach and the structural approach can be shown for several problems that are of actual relevance to gerontology:

-To understand processes of retirement it is important to analyse the structural position of the organization in relation to the labor market and relevant technological developments. This should be done besides explaining the chosen strategies as an application of a general cultural lifeworld attitude towards the elderly (Kohli et al. 1983).

-To understand the meaning of the often noted wish of elderly workers to retire early, this wish should be considered in relation to the sort and the quality of the work that they were involved in. The lifeworld experience of work and the way it has been structurally organized can only be brought into fruitful critical interplay when both perspectives are used.

-To understand the reasons why certain categories of older women get into difficult situations, it is necessary to study the effects of prejudiced lifeworld traditions regarding gender in connection with pension policies etc. that are shaped by organizations (Groves 1983; Herzog et al. 1989).

Thus the lifeworld approach has to be used in connection with a theory of social systems, as we see programmatically in the later work of Jürgen Habermas (1987). This does not mean that the sociological integration of these two perspectives has already been achieved (Berger 1986). Moreover, problems of inequality in the societal distribution of resources are almost absent from his work.

Criticism of intellectual work has been the most constant theme in the work of Adorno, Horkheimer and Foucault. But if we don't want to lose the possibility of rational knowledge, we cannot accept the Nietzschean tendency to identify rationality and power, which emerges often in their critique (Habermas 1985). Critical analysis must focus on the material interests, functions and effects of specific forms of gerontological theory or practice and not deny but use the possibilities to articulate a responsible reflection.

## **V CONCLUSION: THE NECESSITY OF A THEORY OF SOCIAL CONSTITUTION**

The problem of social constitution can no longer be avoided in a responsible reflection of scientific work. This is not only the message of various non-positivist traditions, but also the inevitable result of contemporary discussions in the history of science (Kuhn 1962), the philosophy of science (Feyerabend 1975) and the sociology of science (Latour 1987), which show a remarkable convergence at this point.

Science has lost its seemingly self-evident and unproblematic identity as a logically established search for objective knowledge.

We cannot speak anymore of the one "objective" truth, but only of different ways of establishing knowledge, which are intrinsically related to different theoretical paradigms and different social contexts and cultural traditions. Consequently, a general perspective on gerontology can no longer be found in a logic of scientific discovery that excludes these questions, but only in a theoretical reflection that faces the problem of the social constitution of gerontology and its subject of study: aging.

Only if the qualitative differences in the relevant processes of constitution are acknowledged will it be possible to understand the specific problems of disciplines that

study human beings (not only their bodily functions), their meaningful interrelations or their cultural products. The same is required for a clear understanding of the problems that are involved in undertaking interdisciplinary and cross-cultural studies. Moreover, the traditional separation of "applied" versus "pure" (socially "uncontaminated") forms of intellectual work blocks the feedback of applied research into the general theory of the relevant discipline (Bengtson et al. 1980; Kohli 1988) and into the philosophy of science. The unique situation that different disciplines are still meeting at gerontological conferences could serve as a starting point for finding a new perspective on the interrelations between them.

If gerontology could use this organizational unity to discuss its complicated identity, in awareness of the social constitution of its activities, it might even play a leading role in the process of understanding the meaning of scholarly work in our time.

So there is much to gain theoretically from a renewed fundamental reflection on gerontology. But this is not the only consideration. The explicit acknowledgement of both the end of the positivist era and the need for renewed responsible reflection are also of practical relevance. The remains of the traditional self concept (both anachronistic scientific beliefs and skepticism) block the possibility to reflect on the practical functions and effects of gerontological work, at a moment when much is expected of its expertise. The internalist position is necessarily complemented by naive, pragmatic or cynical attitudes regarding the practical meaning of gerontological work. This may be convenient for a while, especially in a situation where it is difficult to get funds for independent research, but eventually the situation will be detrimental both for gerontology and the elderly. It may seem that scholars will lose their intellectual "independence" by leaving the methodological territory. But if reflection about gerontological studies is confined to this territory, the most important decisions will remain implicit, or will be taken by bureaucratic organizations which may use gerontological research as a legitimation of their policies. These organizations and their policies can have far reaching effects on the lives of aged people and should therefore be studied intensively, instead of being served humbly without any critical distance. A more independent position of gerontology can only come from an awareness of how it might actually be influenced, controlled or used in various ways (Gubrium & Silverman 1989), that are not accounted for in an internalist view.

In order to clarify how gerontology "works" and to be able to make responsible decisions, it is necessary to reconstruct the different ways in which intellectual work in gerontology is constituted with regard to the different consequences this has for the studied subject. "Critical gerontology" is the programmatic expression of a problematic relationship with dominant forms of society and gerontology. There are no simple formula to solve these problems or to get rid of the inevitable ambivalences. They have to be clarified and solved again and again, largely depending on the situation at hand.

These problems can be evaded theoretically by identifying a priori all systematic theory and methods with repression or by obeying a scientific method that allows no critical questions. They can be evaded practically by identifying a priori any organization and professional care with power and control or by obeying organizational strategies or professional codes that allow no critical questions. These problems, however, can be faced in responsible reflections about the social constitution of gerontology and its expert contribution to the social constitution of aging.

## NOTES

- \* Modified version of a paper presented at the Roundtable-discussion "Towards a critical gerontology" of June 20th 1989, during the XIV International Congress of Gerontology in Acapulco (Mexico). The author wishes to thank Dale Dannefer and Kees Knipscheer for their comments on an earlier version.
1. "For unto every one that hath shall be given and he shall have abundance; but from him that hath not shall be taken away even that which he hath". This quotation from the Gospel of Matthew has been codified as the "Matthew effect" by Merton (1973).
  2. In using the term 'constitution' I return loosely to a transcendental notion of critique, in the sense of a reconstructive analysis of the presuppositions that make scientific / intellectual work. Of course, a theory of a social constitution avoids the old association with the one and universal transcendental subject (Giddens 1984; Baars 1988).
  3. This is the canonized view as formulated by Maddox & Campbell (1985) in the "Handbook of Aging": "We are the beginning stages of a data collection process that will eventually yield cross-cultural, cross-temporal, and cross-cohort comparative data on whole lives, or at least on large segments of whole lives with macrolevel time series data to supplement them. Certainly, the form that these data sets take will be motivated in part by the theoretical concerns of those who do the data collection, but much of the data will come from a more or less random process of administrative and academic concerns".
  4. Two fundamental problems that are both of central relevance for gerontology undermine the positivist tradition: the specific quality of living nature, as distinct from the dead material of physics (Hull 1974) and the problem of time (Flood et al. 1986). This cannot be elaborated here.
  5. This distinction of 4 different traditions is not intended as a complete overview. The work of Wittgenstein, for instance, that is quite important in relation to the problem of social constitution, is not discussed. Moreover, it is an analytical distinction, which means that different parts of the work of one author (for example Max Weber) could be placed in different traditions. In the context of this article it is not possible to do justice to the ways in which several authors advocating a critical approach to gerontology have tried to solve some of the problems that are mentioned.

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