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Toward a social history of qualitative research

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Abstract

There are plausible academic as well as social indicators that qualitative research has become an indispensable part of the methodological repertoire of the social sciences. Relying upon the tenets of the qualitative approach which require a priority of subject matter over method and a necessary socio-historical contextualization, I reconstruct some aspects of a social history that have shaped the quantitative–qualitative dichotomy and the quantitative imperative; these include modern individualism, monological rationality, manufacture operating on the grounds of common human labour, mechanics as the first science, quantification as a technology of distanced objectivity and a search for certainty realized at the expense of qualitative attributes. The so-called renaissance of the qualitative approach starting in 1960s, understood as a kind of a return of repressed qualities, is also socio-culturally contextualized. Both anthropogenetic and sociogenetic reconstructions as well as a microgenetic analysis of the research process demonstrate that choices of subject matter and of methodology are socially and culturally embedded and necessarily linked to broader interests and beliefs.

Keywords

modern science, modernity, qualitative research, quantification, social history

Introduction

The contemporary methodological repertoire of the social sciences has become enriched in two ways: first, by the introduction of a variety of qualitative approaches, in marked contrast to the quantitative approaches that have dominated the history of the social

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sciences for a long time, and second, by a growing methodological reflexivity, inspired and reinforced by qualitative research. The consequences of these changes amount to a 'quiet methodological revolution' (Denzin and Lincoln, 1998).

The case of psychology is exemplary: compared to other social sciences, the rediscovery of a qualitative tradition was delayed – 'it is only now being rediscovered after a new crisis in psychology which started in the 1960s' (Nerlich, 2004: 31). And there are already statements of an 'explosion of interest in qualitative psychology' (J. Smith, 2008: 1). The position of qualitative research in relation to quantitative is nevertheless still marked by a weak presence in the already established institutionalized representations of scientific psychology.

In an analysis of the place of qualitative research in 15 American Psychological Association (APA) periodicals, Sean Kidd has found 'that there exists a substantial amount of interest in mainstream psychology regarding the potential contribution of qualitative research. Qualitative studies, if only in small numbers, are being published in APA journals' (Kidd, 2002: 136). In the article, published in one of the APA periodicals, *Psychological Methods*, Sean Kidd adduces the reasons which in his view impede a more thorough inquiry into the recognized potential of qualitative methods for psychological studies. The author locates all these reasons in the academic sphere – an explanation which itself does not make use of all the potential of qualitative approaches, which would also require the inclusion of a broader social context. The primary reason is, he argues, the ill-defined, vague, insecure position of 'mainstream' psychology in relation to qualitative methodology. Second, 'there appears to exist a significant and, for some, insurmountable paradigmatic clash between traditional empirical psychological study and the more interpretivist philosophies of qualitative work' (ibid.: 136). Third, Kidd adds that the insufficient qualitative research sent to these journals does not allow a proper assessment of its potential.

In a more recent and broader study Marchel and Owens analysed 57 journals associated with the American Psychological Association and its divisions to document the place of qualitative research in American psychology over the past 50 years. 'Journal mission statements parallel the trend of limited publication of qualitative work. Of the 57 journals only 6 had mission statements rated as inclusive of qualitative research' (Marchel and Owens, 2007: 311). The authors were looking also for trends and patterns, stressing that none of the journals with a high ratio of qualitative research was published before 1970 and just 'several of the long-running journals show a small recent trend for increased publication of qualitative research' (ibid.: 313).

This 'small recent trend' was obviously not strong enough for an initiative that was launched a few years ago to get sufficient support for the establishment of a new Division for Qualitative Inquiry within the American Psychological Association. This is particularly significant because specialists, researchers and advocates of the qualitative approach believe that 'by and large, one can observe greater openness to qualitative (structural) data-derivation strategies in the social sciences of continental Europe, Russia, and South America than in the Anglo-Saxon-dominated countries' (Valsiner, 2000: 101). One example: since 2003 there has been a division of qualitative social research within the German Sociological Society (DGS). Nevertheless, as reported from within British psychology itself, 'British psychology has developed a greater openness to qualitative research in recent years' (Coyle, 2007: 26).

It can reasonably be claimed, then, that the readiness to accept qualitative research as a legitimate scientific approach is increasing. In the meantime, there are more valid and reliable signs that qualitative research has been recognized as an academic endeavour with the attributes of an important social institution. Qualitative inquiry represents a rich, heterogeneous field comprising various techniques, methods, concepts, theories, interpretive patterns, value orientations, ontological, anthropological, epistemological assumptions, ethical principles and social and political views. It is at first sight an interdisciplinary field, but, in view of its accepted premises, it would be more accurate and apt to describe it as transdisciplinary, or, sometimes, even counterdisciplinary (Denzin and Lincoln, 1998; Lorenz, 2010).

If this is an accurate diagnosis of the actual state of current research methods, the question of its genesis must be posed, i.e. of the conditions under which it came into being. What made it possible and what brought about the broadening of the scope of research and effected the change of the established parameters, conditions of inquiry and the entire style of research. The shift from the methodological monism of the classical, quantitative research paradigm to a methodological pluralism by the introduction of qualitative, interpretive and reconstructive approaches occurred through shifts at different levels and in different forms: from the primacy of method (even 'methodolatry') to the recognition of the primacy of the object; from the nature-centred conception of the object to the definition of the object of the social sciences as intentional self-interpreting subjects living in already interpreted life-worlds; from the exclusion or at least neglect of the subjective dimension of meaning to the acceptance of meaning as a basic category of the social sciences; from privileging laboratory and controlled situations to the return to natural, real settings as the site for research; from the exclusion, or at least neglect, of the context to the awareness that context is a constituent aspect of the phenomena under study, of the subjects and even of the researchers themselves; from goals defined in the epistemological mode of explanation and prediction to that of understanding and interpretation; from the cognitive interest aimed at control to the interest in participatory research and the alteration of the conditions of life; from the conception of the informant as an object of research to the recognition of the role of active participants; from methodological uniformity to methodological pluralism ensured by a demand for the triangulation of methods, materials, perspectives and observers; from the choice of large samples, represented by a small number of variables, to small samples, and even individual cases, represented in all their structural complexity and temporal mutability; from quantitative to qualitative representations of phenomena; from ethical principles derived from instrumental calculation to ethical principles based on the respect for the informant as a participant in research; from rhetorical minimization and neutralization of the researcher's role to the demand for constant, and the fullest possible, self-reflection; from an absolutist epistemology derived from the correspondence theory of truth to a linguistic-relativistic epistemology of social constructionism; from the normatively posited pure knowledge to an analysis of the knowledge–power relationship; from static ontology to developmental ontology.

Qualitative approaches, in spite of their diversity and heterogeneity, are united in the understanding of their adherents that they provide an alternative to the classical model of standardized scientific research, which is labelled as quantitative. Therefore, qualitative

approaches presuppose, both linguistically and historically, the quantitative–qualitative dichotomy. Thus, in order to understand how qualitative approaches emerged and developed it is necessary to look for historical trajectories of the quantitative–qualitative division, for the conditions they require, the contents they include or exclude, favour or repress, interests they are constituted by and values they reinforce. That historical trajectory is very long; it starts – as did many other western intellectual traditions – in ancient Greece, but its most important part belongs to modernity. As qualitative research is much more than the application of specific qualitative methods – it is a different world picture, first of all a different understanding of human beings – a plausible positioning of qualitative research in the history of social sciences and in its social context requires a historical reconstruction of the processes by which the quantitative–qualitative distinction has become an intellectual as well as a social tool. In this article the quest for certainty, the rise of experimentation and quantification, will be reconstructed in order to show their implications for the construction of the quantitative–qualitative division and, respectively, a neglect of the qualities of phenomena in modern science and life.

The socio-historical approach to qualitative research proposed here is oriented towards a reconstruction of general tendencies relevant for the main tenets of the qualitative paradigm. It is assumed that this general framework is a precondition for more concrete analyses which would deal with qualitative research within specific disciplines or regions.

Thus, addressing the question of the social history of the qualitative approach the structure of this article follows a broad reconstruction of the historical processes that created presuppositions for the development of the modern scientific approach, which is characterized by the quest for certainty, the observational base of knowledge, experimentation, the quantitative–qualitative dichotomy, the quantitative imperative and the repression of qualities. Further analysis will include reconstructions of socio-historical origins as well as an assessment of the implications of qualitative research itself and of its second return in the 1960s.

Origins of the Qualitative Approach

Modern science is a specific syndrome incorporating attainments of various traditions – which in itself indicates the need to study its social history. The social genesis of modern science can be reconstructed in various ways (for an overview, see Jovanović, 1997: 64–81). One model recommends the study of the social processes which created presuppositions for the emergence of the scientific approach (secularization, individualism, rationality, technical inventions). Science itself, as it became differentiated, came to be a powerful means of further secularization, rationalization and technological development. Another way to reconstruct the social genesis of modern science is to start from the social groups of the waning feudal world that were the bearers of specific activities and competences which passed into the modern scientific approach as its components.

In view of the basic tenets of qualitative research concerning the primacy of subject matter over method and of the obligatory contextualization of the whole research process, the discussion of the conditions and developments leading to the present state of qualitative research surpasses any particular scientific context and requires broader social, cultural and historical considerations, also encompassing the ‘*Weltanschauung*’.

This is especially important if we bear in mind that the increasing interest in qualitative research is usually described as a ‘renaissance’ or the ‘second return’ of qualitative methods (Flick, von Kardorff and Steinke, 2003; Gobo, 2005). Therefore, the question of the first turn of qualitative research is implicated in the ‘renaissance’ claim. Answers offered to this question are themselves suitable for qualitative analysis. Namely, the prevailing understanding of the history of qualitative research sees direct historical origins in the opening decades of the 20th century and the sociological studies of the well-known Chicago School (Denzin and Lincoln, 1998). The classical study of the Polish peasant in Europe and America by Thomas and Znaniecki (1927[1918]) involves case studies, biographical research, the use of personal documents, migrants as informants, a focus on personal meaning – to mention just a few qualitative features. The institutional embedding of qualitative research in the first Department of Sociology at the University of Chicago has essentially shaped sociology as a discipline. As the renaissance of qualitative research started first in the USA in the 1960s (with a decade of delay in German-speaking areas [Flick, 2002]), the dominant ‘Chicago origin story’ could be understood as an expression of the power of cultural centration (or myopia) of the first returnees.

As a matter of fact there were more origins located in different places, but remarkably also at the very same place – the University of Chicago. George Herbert Mead, in the Philosophy Department in Chicago in the first decades of the 20th century, thought social psychology was based on symbolic interactionism (Mead studied in Germany under Wundt, Ebbinghaus and Dilthey). In a historical reconstruction of the ‘full (hermeneutic) circle’ in the controversy on quantitative/qualitative methods, Brigitte Nerlich pointed out that ‘a new influx of German thought gave the Chicago School of Sociology yet another layer of insights. This time they came from Georg Simmel and Max Weber, who were themselves steeped in the tradition of Dilthey and his followers’ (Nerlich, 2004: 31). Taking into account the role of Weber in founding modern social theory, it is even more important to stress the qualitative origin of sociology, compared, for example, to an institutionalization of a dominant quantitative origin of psychology. If psychology had oriented itself toward sociology instead of toward the natural sciences, we probably would have another psychology – and likely fewer crises in psychology as well as a different socio-cultural landscape.

Additionally to a Chicago origin story, there are good reasons to argue for ‘the ethnographic roots’ of qualitative research, referring to the study of culture and language by Bronislaw Malinowski, even more so as he held the first chair in social anthropology at the London School of Economics (Nerlich, 2004). For the sake of a parallel, the French sociological school – notably Durkheim’s (1897) study on suicide – could be mentioned. At the same time, Max Weber (1994[1897]), arguably one of the founding fathers of modern social science, demonstrated in his studies, as well as in his methodological reflections (his concept of *Verstehen* [understanding] is especially important), not only that socio-historical knowledge is categorically distinct from that of natural science (following in this way Windelband and Rickert) but also that the role of subjective values in historical and cultural concept formation is inescapable. Before him, in 1894, Wilhelm Dilthey made a plea for a descriptive as opposed to an explanatory psychology: ‘we explain nature, we understand psychic life’ (Dilthey, 1977[1894]). Husserl’s phenomenological psychology project in the 1920s continued that tradition. In a recent German

study on qualitative research, it is pointed out that ‘Karl Mannheim, together with Norbert Elias, in the thirties, practiced a research workshop on qualitative methods with doctoral students’ (Bohnsack, 2008: 190).

Additionally, biographical research has a much longer history than historiographical researches themselves have. It deserves to be recalled also that Vico’s dictum (1968[1725]) ‘*verum esse ipsum factum*’ [the true itself is made] provided an epistemological foundation for a categorical distinction between understanding historical events and natural phenomena – and for the superiority of the scientific knowledge of the former. Its similarity to social constructionism is also easily visible. In Brigitte Nerlich’s view, ‘the roots for thinking that psychology should be based on qualitative (anthropological, cultural-contextual, hermeneutic) methods can be traced back to Kant as well as his Romantic opponents’ (Nerlich, 2004: 23).

Relying on these examples, it is reasonable to conclude that a pluralistic account of the historical roots of qualitative research would certainly better suit the tenets of the qualitative approach – even more so as there are striking differences in the understanding of qualitative research in American and European (especially German) academic contexts (Bohnsack, 2008).

Thus the question of the conditions determining the development of qualitative research paradigms should be subdivided into two questions: the first concerns the constitutive conditions of the emergence of qualitative approaches and the second bears on the causes of their later renaissance in a much more assertive form. Relying on the enhanced scientific and social legitimization of qualitative studies, we may rephrase the question in a more suggestive form: how should we explain the greatly delayed reception of the ideas of qualitative approaches, or how a more fruitful reception of qualitative methods of inquiry, which conditions rendered impossible, was prevented or postponed? This ‘renascent’ status of qualitative research provides an additional argument in favour of the thesis that its origin should be explained within a broader frame of reference comprising not only its scientific context, but also its historical, social, political and cultural contexts.

Historical Vicissitudes of the Quest for Certainty

Within a narrow scientific context, an important question concerns method, since according to a still influential tradition, method is considered one of the defining attributes of science. This view of method also has its history, the (relative) beginning of which coincides with the rise of the natural sciences in the 17th century. The conditions that rendered possible the emergence of the natural sciences were the outcome of a number of social, political, cultural, religious, economic and technological changes, which had already begun to take place in the waning medieval world and which provided the basis for the building of the ‘new world’.

The shift from the medieval to modern world is characterized by processes of a desecularization of life and world-view. Max Weber (1992[1904–5], 1995[1919]), the prominent theoretician of modernity, has famously described that process as disenchantment [*Entzauberung*]. The process of the disenchantment of the world started in a theological context as a consequence of the irresolution of the problem of theodicy within the

Christian theological world-view. Consequently, the trust in the whole divine order became unstable. With the disappearance of providential divine order, new configurations and conceptualizations of ‘man’, nature and community started emerging:

Teleology is evacuated from nature as God retreats into ‘hiddenness’, and what remains after the divine abdication is nature as mere *Stoff*, matter in motion without purpose. . . . Second, with the world no longer providentially ordered *for* man, humankind is thrown into agency for the first time, confronted with the need to *create* order by mastering what is now perceived as a world of uncertain and alien materiality. *Ordnungsschwund* thus goes hand-in-hand with the emergence of a new concept of human freedom, the principle of ‘self-assertion’. (Yar, 2002: 57; original emphases)

Thus, with the weakening and gradual abandonment of the absolute theological legitimation of the world, the man of the emerging new, modern age started instituting himself in the void which threatened nihilism. The new, modern age is an epoch based on the principle of self-determination and self-assertion. It is grounded in self-regulating human subjectivity embodied in the rational pursuit of truth in nature and history, in technological advances and in new cultural forms (e.g. Shakespeare’s plays, the separation of melody in music, solo instruments, etc.). As Hans Blumenberg has convincingly shown in his inquiry into the problem of the modern age’s legitimacy *Die Legitimität der Neuzeit* [The Legitimacy of the Modern Age] one of the powerful deterrents of change, and, consequently, of innovation, was the fact that curiosity was placed on the list of vices in the Middle Ages (Blumenberg, 1988: 103). Therefore one of the motivational postulates of the modern age was the rehabilitation and vindication of curiosity.

Curiosity led to the acquisition of new knowledge, and knowledge itself was a powerful means of attaining certainty. The yearning for certainty has been the motivational force of numerous achievements of the modern age. Descartes’s thought which, according to the classical view, laid the first philosophical foundations of the modern epoch, grew out of the epistemology of certainty achieved after ordeals of radical, hyperbolic doubt. Descartes began as a master of doubt and ended as an advocate of certainty which completely excludes doubt (Descartes, 1978[1637]).

The origin of the modern search for certainty was influenced by a variety of processes. The gradual replacement of the theological paradigm with the human paradigm was probably one of the sources of uncertainty which in turn motivated the quest for certainty. The development of modernity toward attaining certainty was essentially shaped by the rationalization and intellectualization of the world. Max Weber is often referred to as the author of the rationalization thesis as a historical explanation of the development of modern western civilization. Means of rationalization include different structures – philosophy, science, religion, art, but also legal, economic, political and administrative tools. Actually, all spheres of life were subjected to rationalization which was seen as a universal means to master all things with the aim of achieving certainty.

Within philosophy, the Cartesian rationalist matrix stands for absolute certainty. Stephen Toulmin (1992) sees in this process a characteristic modern strategy which was to give rise to many limitations and, ultimately, to intolerance of the other and the different. Toulmin, therefore, calls for the restoration and adoption of another ‘trajectory’ of

modernity – now forgotten and suppressed – which allows for and recognizes indefiniteness, uncertainty, peculiarity and variability.

The opening gambit of modern philosophy becomes, not the decontextualized rationalism of Descartes' *Discourse* and *Meditation*, but Montaigne's restatement of classical skepticism in the *Apology*, with all its anticipations of Wittgenstein. It is Montaigne, not Descartes, who plays White: Descartes' arguments are Black's reply to this move. (Toulmin, 1992: 42)

The key question for Toulmin is 'why these two traditions were not seen from the beginning as complementary, rather than in competition' (Toulmin, 1992: 43). Why did 17th-century people find uncertainty unbearable? Their need for certainty may perhaps be understood as a renewal of theological absolutism in a secular, human form. But the modern obsession with certainty was, to use Toulmin's metaphor, a second move, made in response to the widespread social and economic crisis of the early 17th century. In Toulmin's view, Montaigne's pluralism and scepticism were no longer practicable and acceptable in that critical period with its devastating wars of religion between the Catholics and the Protestants. It was necessary to find more reliable foundations – to abandon the oral, the local, the particular and the temporary, and to turn to the written, the general, the universal and the timeless, which would satisfy, it was hoped, the yearning for certainty and also provide a stronger foundation.

This is Toulmin's answer to the question why certainty became unbearable at the beginning of the 17th century. This is also a partial answer to the question why these two traditions, for which Montaigne and Descartes are the most famous figures, were interpreted in terms of competition and not of coexistence. Toulmin, however, does not see in this competition an instance of the general obligatory principle of competition as the key form of the organization of life in emergent capitalism. The later reception of Descartes and Montaigne, which made them widely separated, proceeded in conformity with this view which steadily gained ground with the development of capitalism. The outcome of this competition was also interpreted in accordance with the model of the 'survival of the fittest'. In Toulmin's revised interpretation of modernity, that was a temporary Pyrrhic victory. In the meantime, the victor came to need the help of the vanquished.

Both the modern obsession with certainty (which originated, on the one hand, in a profound and destructive social crisis, and, on the other, in a concurrent upheaval in traditional cosmology – in the sense of a transition from a geocentric to a heliocentric world-view) and the choice of means for its achievement (namely resorting to a generalized rationality derived from the self-certainty of monological thinking but applied to life as a whole) may be interpreted, with certain adjustments, in terms of the framework used by the German philosopher Odo Marquard (1982) in his analysis of the turn to nature in Schelling's philosophy in the early 19th century, and the turn to therapy in Freud's psychoanalysis in the early 20th century. That turn, according to Marquard, 'became inevitable under the conditions of the long-lasting crisis of the mind and of the resignation of the philosophy of history – that is, of the lasting power of nature' (Marquard, 1982: 103). In view of the different contexts of the 17th and 19th centuries, a similarity can be posited only in the epistemological distancing from society – but the

chosen retreats were different: monological mind in Descartes, aesthetics in Schelling, and therapy in Freud.

Accordingly, the self-based, monological mind emerges from the impotence of the intellect to comprehend the complexity of the societal world – and the contemporary societal world is incomparably more complex than that of the 17th century – but it nevertheless returns to its suppressed origins by subjecting the world to its rational schemes. But by doing this it withdraws once more from that world, only with different means.

This is how Toulmin summarizes the dynamics which shaped the 17th century and also determined the most important phases of the later history:

Whatever sorts of problem one faced, there was a supposedly unique procedure for arriving at the correct solution. That procedure could be recognized only by cutting away the inessentials, and identifying the abstract core of ‘clear and distinct’ concepts needed for its solution. Unfortunately, little in human life lends itself fully to the lucid, tidy analysis of Euclid’s geometry or Descartes’ physics. (Toulmin, 1992: 200)

If we take into consideration the accounts of the anthropologists that there is a tendency to harmonize the representations of natural and social experiences within one culture, we understand that the modern age is specific only as regards the particular model which it has imposed as obligatory, not as regards the homology itself of the physical, the subjective and the societal worlds. Kurt Danziger (1994) underlines that homology in his reconstruction of the social and cultural roots of psychological discourse:

... the classical associationists can be regarded as having systematically extended to the mental level an analogy that already existed between the system of nature and the social system. The link between an individualistic social theory and an elementaristic model of the individual mind proved to be extremely stable. ... The structure of the body, or the mind, confirms the consonant structure of the social order, and vice versa. In this way some of the basic categories of psychology can be seen as being part of a culturally based cosmology. (Danziger, 1994: 348–9)

Tendencies to harmonize representations of the natural and social order with the subjective world could be understood also as serving the general purpose of attaining certainty. Atomistic operationalizations of the homological structures have populated, with rare exceptions, the main trajectory of modernity. In the course of time they were given added support by new elements – economic efficiency, rationalization of social institutions (bureaucracy as organizational operationalization of rationality).

Two great wars – this time in the 20th century – later buttressed the new project. The loss of confidence in the political order in Europe and the crisis of the Newtonian picture of the world, which had been accepted up to that time, led to ‘renewed investments in rationalism’ during the 1920s and 1930s. According to Toulmin, the Second World War was the ‘culmination’ of the social and historical processes which began to shape the modern epoch in the middle of the 17th century.

As has already been noted, Stephen Toulmin claimed that such a fabric of society emerged as an attempt to attain certainty after devastating religious wars and in this way

to prevent a repetition of such wars. Nevertheless the same fabric also produced its own wars. Eventually, the quest for certainty was translated into political interest for control, including also the use of military means.

We return to the question of the conditions under which qualitative research was first applied in a disciplinary scientific context and historiographically acknowledged as the origin of the later renaissance of qualitative methodology – notably with the development of the Chicago School of Sociology. Neither rationalism, nor the economic identification of rationality with efficiency, nor mechanical industrial labour – all of them, according to Toulmin, achievements of the modern project which excludes context, the other, the different, the distinct and the local – were by any means non-existent in the Chicago of the early 20th century. It is possible, though, that the pressure was not so compelling there as in war-devastated Europe. It is also possible that one of the principal objects of research (Polish immigrants) helped the researchers realize that a different object required a different approach.

The situation in anthropology, which together with sociology is generally considered to have given birth to qualitative methods, is similar. Here the difference between the object and the researcher is even more conspicuous.

It has been already pointed out that the prevailing historiography of qualitative research is very reductive, since it ignores many rich traditions of qualitative inquiry in other sciences such as history, psychology, pedagogy and medicine. This biased interpretation of the history of qualitative research might itself be the subject of a qualitative inquiry.

The Historical Rise of Scientific Observation and Experimentation

After this broad historical reconstruction of the modern need for certainty that has had an essential role in determining the course of modern philosophy and science, it is also necessary to reconstruct the social history of some other constitutive features of modern scientific knowledge.

In addition to the rehabilitation of theoretical curiosity, observation is another important component of the psychogramme of modern science. Observation could become a basis for the development of the modern natural sciences only after observation in the form of visual perception replaced the sensory modalities of smell and hearing, dominant in the Middle Ages. ‘The dark Middle Ages’, as that historical epoch is still described by those who may also be projecting their own lack of (the light of) knowledge of that world onto, have nevertheless a semiotic referent in the ‘epoch-specific visual retardation’, as Zevedei Barbu (1960) stressed in his investigations on historical psychology (referring to Lucien Febvre’s apt description). It goes without saying that it was not meant to convey that 16th-century people had problems with their sight; the point is that sight was not the dominant mode of the human relation to the environment.

It is primarily on this account that Febvre characterizes the sixteenth-century Frenchman as suffering from ‘visual backwardness’ (*le retard de la vue*). Moreover, he refers to the sixteenth-century perceptual world as a world of hearing, mentioning the rise of modern

music as another proof of this. As compared with this, the seventeenth- and particularly the twentieth-century perceptual world is the world of the visual, with which is closely related the rise of modern science. (Barbu, 1960: 23)

The project of founding modern science on observation coincides with the already mentioned more general tendencies of disenchantments and secularization of the emerging modern world. Originally, observation was used as a means to turn away from theological and speculative views. It was a kind of ‘public way’ of attaining certainty. In the course of time, however, observation itself became re-enchanted in the so-called ‘myth of the sensual origin of knowledge’ which dominated quite long periods in the history of scientific disciplines. The most influential elaboration erected on the assumption of the existence of pure and independent empirical data derived from observation is positivism. In addition to epistemological functions, its history reveals also its function in stabilizing social orders. Two cases show that very clearly – the father of positivism itself, Auguste Comte, in the times after the French Revolution and the Vienna circle after the First World War in the 20th century. Evolving to a kind of dogma (cf. ‘Two Dogmas of Empiricism’ by Quine [1960]) positivism eventually became a target of sharp criticism which brought about a linguistic, and, later on, an interpretive turn. Thus, the historical vicissitudes of the quest for a pure and independent observational base for knowledge show a quite similar pattern as the vicissitudes of the quest for certainty.

Edgar Zilsel’s studies are very insightful for an attempt to reconstruct a social history of modern science. They draw attention to some other constitutive aspects of science which originated in the preceding epoch but which became integrated only in the modern age and helped to develop science as a rational search for truth by experimental methods. According to Zilsel, before the 17th century there were two separate activities and competencies which also were kept apart by social barriers:

... training in logic was reserved for upper class scholars; experimentation, causal interests and quantitative methods were more or less left to the plebeian artists. Science was born when the experimental method finally overcame, helped by advances in technology, the social prejudices concerning manual work and when rationally trained scholars took it over. That was achieved around 1600. (Zilsel, 1976[1940–4]: 49)

The historical studies of Galileo and his time, to mention a particular case, have shown that ‘the novelty in the way Galileo posed questions consists in the fact that he rejected the tradition of theoretical physics and relied on the experience of practicing technicians’ (Borkenau, 1983[1934]: 19¹).

It was only when experimentation became a part of the process of the acquisition of knowledge that modern science was given its characteristic form and the standing of a social institution with an undisputed privileged epistemological status. In the modern age, scientific knowledge became a means of breaking off from the mythical, the dogmatic, the speculative and the lay.

There are also epistemological reasons which explain why experimental sciences lagged behind deductive disciplines in the past. Piaget adduces three such reasons. The first is associated with the ‘natural tendency of the mind’ to deduce rather than

experiment. Second, Piaget explains this natural tendency by the specific character of deductive operations – the initial direct operations of association and separation are very simple. In his further analysis he explains why the third reason is even more basic:

... because the so-called ‘reading of experience’ (*la lecture de l’expérience*) is never a simple reading; it entails acting upon reality, since the involved factors ought to be distinguished from one another. Accordingly, ‘reading’ implies logical or mathematical structuring. In other words, it is impossible to reach an experimental fact without a logical-mathematical framework. (Piaget, 1979[1972]: 41–2²)

Other reasons, besides the epistemological ones, have been advanced to explain the delayed advent of experimentation. Some were motivational, and some were of a more general social nature which averted the very thought of intervention. To act upon reality was deemed neither necessary nor desirable in a world conceived as the finished creation of God. Embodiments of this way of thinking are found in a great variety of structures: in the static, immutable estate structure of the society, in serfdom bound to the land, in geocentric cosmology. It was only in the modern age that ‘acting upon reality’ was placed on the agenda as a general project. A correlate of acting upon reality was the subject of the action – *homo faber*, a man of enterprise, a subject endowed with reason and capable of acquiring knowledge, an agent of history.

The Social Rise of Quantification

Quantification is another important feature of modern science which also requires social reconstruction, especially since quantification became a universal social requirement. It is this universality that distinguishes modern quantification from the very old philosophical concern with numbers and the obviously older and more widespread practice of counting and measuring.

Numbers are not attributes of things, but are derived from relations established among things. In Piaget’s terms, numbers are derived from the actions of subjects upon objects (e.g. uniting, ordering, associating):

... these are the most general coordinations of actions, which are an expression of the interlinking of neural or organic structures in living beings, and also an expression of human intelligence. Being the outcome of these general coordinations, mathematics is both universal and adjusted to the object, and its sources should be sought in the fundamental interactions of the organism and the environment, in which the subject and the object constitute merely two segments. (Piaget, 1967: 98)

Viewed from this logical point of view, the qualities of things could be seen *prima facie* as having ontological priority. But these qualities undergo changes as they pass from the qualities of things to the subject’s experience of these qualities, so that the perceived qualities do not provide a reliable ground for the postulation of the qualities of things. To put it in Piaget’s terms again, the senses are not sufficient for the reading of qualities. That also means that the experience of qualities already includes various

actions of the subject. That, in turn, shows that Piaget's criterion for distinguishing physical and logical-mathematical experience is unreliable – referring respectively to things and actions of subjects. The implications of this insight, when fully elaborated, would lead to the conclusion that all experience is necessarily saturated with the kind of experience from which a logical-mathematical one is derived. That would in turn necessitate a revision of the postulate of the priority of qualities. A network model, visualizing intersecting experience-building trajectories, would be more suitable than the hierarchical model. Viewed in the context of the relationship between qualitative and quantitative approaches, that would mean that both methods have a common epistemological ground (network) in which they necessarily intersect.

It is easy to recognize behind these conceptual differentiations an earlier and more familiar one – namely, the discussion of primary and secondary qualities. That discussion is concerned with the conceptualization of the nature of things, but it necessarily comprises an analysis of the nature of cognition too. Primary qualities are the attributes which exist in the objects themselves in the same way as one perceives them, and they are measurable (e.g. form, size, volume). Secondary qualities do not exist in the things themselves, but are ascribed to them by the subject on the basis of his or her subjective experience (e.g. colour, taste, smell, sound).

In the 17th century this distinction, already pointed out by Democritus, began to attract the increasing attention of scientists and philosophers. Credit for introducing it as a topic of discussion in the philosophy of the modern age is commonly given to John Locke, although it had been discussed before him by Galileo, Newton and Descartes. Locke has a discussion of primary and secondary qualities in his greatest work, *An Essay Concerning Human Understanding* (1975[1690]), in which he explores the nature and limits of human knowledge. Our ideas of primary qualities are similar to the qualities as they are in the object itself; our ideas of secondary qualities are not. Although Locke merely expounds here what was common in the contemporary atomist corpuscular theory of matter – which had in fact adopted (in its stand against Aristotle) the ideas of Greek atomist philosophers Democritus, Epicurus and Lucretius – his distinction between primary and secondary qualities has become a distinguishing mark of the 17th century (Popkin, 1999).

The best-known critic of this distinction was George Berkeley in *A Treatise Concerning the Principles of Human Knowledge* (1975[1710]). Berkeley's epistemological analysis transforms even primary qualities into secondary qualities, since he maintains that they exist for the observer in his perception only (just as everything else exists for the subject in his perception only) – *esse est percipi*.

Modern analytical philosophy has replaced the former secondary qualities with the idea of the qualia of mental processes, so that it might be said that secondary qualities have lost their connection with external reality and become mere attributes of subjective states.

There is, however, another line of thought which is followed in the 'transformation' of secondary qualities into primary, i.e. measurable, qualities. This process may be described in more general terms as the transformation of quality into quantity, or as quantification. Of course, this process is by no means confined to the conceptual level – concepts provide the basis and guidance for various forms of practical activity aimed at quantification.

The transformation of quality into quantity and the ousting of quality is also one of the most distinguishing marks of modernity. The Renaissance still had a qualitative philosophy. There were many motives which contributed to the modern programme of the quantification of the world and life – yearning for certainty, need for control, rationality as the supreme norm, an empirically based and method-oriented model of scientific inquiry, technical progress, and changes in the forms of labour and in social organization. It was owing to their synergetic thrust that quantification became both possible and desirable.

On the most general level, the need for ever more widespread quantification already stems from the simple fact of population growth. Increasing numbers of people get relocated, moved, stimulated, involved in increasingly varied mutual relations; consequently, it becomes necessary to introduce a concept that would comprise this large and dynamic multitude and provide the basis for the necessary regulation and management of this mobile, volatile and dynamic assemblage.

The modern age is also a period of profound changes in the very form of labour. Besides the emergence of completely new types of activities (e.g. banking), crafts were increasingly transformed into manufacture, which was in turn transformed into industrial labour with machines. This was the second major sphere of mass transformation of quality into quantity. As the rise of the natural sciences – the first among which being physics, or, more particularly, mechanics – dates from the same time, another important channel of quantification was opened.

In addition to that, the manufacture-based and mechanical sources of quantification were interlinked. In an extensive study dealing with the transition from a feudal to a bourgeois world view, written for the Institute for Social Research of the University of Frankfurt in the 1930s, Franz Borkenau defends the thesis of the essential connection between manufacture and mechanics: ‘the tendency to explain whatever happens in nature by mechanical processes may be defined as an endeavour to explain whatever happens in nature by way of analogy with the processes in a manufacturing establishment’ (Borkenau, 1983[1934]: 18³). This connection is given added importance by its functionality in other important structures of capitalist society.

The modern age made possible and accomplished the rehabilitation not only of curiosity, but also of labour, both as an object of knowledge and as an activity deserving social attention and respect. Associated with this was the universalization of labour. Just as the individual subject became a general structure, just as good sense (*bon sens*) was considered to be ‘the most fairly distributed thing in the world; for everyone thinks himself so well supplied with it’, as Descartes (1978[1637]: 7) says at the beginning of his *Discourse on Method*, and just as the dictum *Cogito, ergo sum* was deemed applicable to every thinking self, labour was given the status of common human labour. Mechanics offered a means for the conceptualization of labour as common human labour (with the key category of power), and manufacture made it possible by splitting craftwork into simple, repetitive operations. This fragmentation became the basis of the commensurability of effects and of the principle of rational calculation and saving derived from it.

Only pure quantities are commensurable, the comparability of working quantities is therefore dependent on the reduction of all working qualities to common human labour, defined

in purely quantitative terms. It is only by doing this that rational savings can be really made. And mechanics is, in essence, an exact science concerned with the comparison of labour effects. Accordingly, it may be said that manufacture is a presupposition of modern mechanics. (Borkenau, 1983[1934]: 20⁴)

Borkenau's fascinating synthetic argumentation reconstructs the set of conditions under which the major institutions of the modern epoch developed. It shows that quantification was inherent in the programme of modernity, i.e. that the viability of this programme depended on the universal transformation of quality into quantity. According to this interpretation, then, quantification is socially and economically embedded.

However, the other interpretation linking quantification with the tradition of naturalism has become dominant in historical development. As the foregoing analysis of views concerning the difference between primary and secondary qualities shows, one of the characteristics of primary qualities is exactly their possibility of being quantified. Since the postulation of primary qualities rests on naturalistic presuppositions, the legitimating role of naturalism (according to the view which takes nature as the supreme legitimating authority) is passed to quantification as well, so that quantification becomes something self-understandable and 'natural'.

This comfortable position as regards legitimation leads, however, to a certain 'sluggishness of mind', i.e. to passivity and a disinclination for the reappraisal of the selected presuppositions, and of the process and implications of quantification. The advantages and risks of this position are also apparent in the status of the quantitative approach in the social and human sciences, and, consequently, in psychology, too.

It is therefore very important to mention the still rare attempts critically to examine the 'quantitative imperative'. Contrary to the widespread myopic view, the history of intellectual commitment to numbers is much older and a multi-site issue, argues Joel Michell – in western civilization it goes back to the pre-Socratic philosophy, but in Michell's view the key figure is Pythagoras: 'Through Pythagoreanism, the quantitative imperative has deep links with philosophy, theology, art and mysticism' (Michell, 2003: 7). The most important Scholastic theologian Augustinus could establish a continuity between Plato's cosmology and biblical interpretation of God's attributes – the supreme measure, the supreme number, and the supreme order (ibid.). According to Michell's reconstruction, in late medieval times that tradition of thinking in quantitative terms became less influential compared to the qualitative Scholastic-Aristotelian physics – and with the modern epoch the relation changed in favour of a quantitative tradition advanced to the quantitative imperative. An explicit affiliation of numbers and measurement with mysticism, which was established in the Pythagorean school, became dissolved in modern science, but measurement itself was advanced as the *conditio sine qua non* of science. In conclusion Michell claims:

The Pythagorean vision of reality is one of the most enduring ideas in Western thought. It has an unbroken history from at least the 6th century BC to the present. Many of the leading figures of Western science thought of themselves as Pythagoreans, so prophetic did it seem. The success of quantification feeds the illusion 'that there is a kind of knowing which penetrates to the very core of the universe, which offers truth as something at once beatific and

comforting, and presents the human being as cradled in universal harmony'. (Burkert [1972: 482] cited by Michell, 2003: 11)

This interpretation of quantification which underlines its strong pathetic Romantic commitment has shown some overseen or repressed roots and implications of the quantitative imperative. But quantification was never just an intellectual issue. With the modern epoch it has become a powerful means of production, as already shown in Borkenau's analyses. Beyond the scope of science and production, it has decisively informed many other modern social institutions.

The increasing tendency to treat objects, but also human subjects and society, as a decontextualized assembly of quantifiable components is interpreted in many accounts as representing a general feature of rising capitalism – to mention here just two of the best-known classical representatives, Karl Marx and Max Weber. Sharing that view, Benny Karpatschhof (2007) additionally uses Sartre's concept of a series as a heuristic tool to describe general tendencies which characterize the dominant structures of the modern world, science and administration alike. While the Sartrean concept of group presupposes a coordinated activity of individuals, the concept of series (the best-known example is queue) is determined by lack of coordination, suspension of personal qualities, and isolation from context. Accordingly, by seriality, Karpatschhof describes an attitude of dealing with decontextualized objects in a uniform, standardized, possibly quantifiable way – be those objects natural phenomena or subjective or social ones:

In the very same epoch, where rationalistic philosophy, natural science in the modern sense, and mechanistic technology blossomed, the statistical institutes of governments as well as of insurance companies were founded. The bias toward serialistic conception of human being is thus far more than an imported attitude from natural science into the anthropological field. It is, rather, a logical consequence of an ontological change in the whole fabric of society. (Karpatschhof, 2007: 196)

A similar, social account of quantification is defended by Theodore Porter (1995) in his study *Trust in Numbers: The Pursuit of Objectivity in Science and Public Life*, where he examines quantification within the framework of political philosophy, from a broad perspective which includes state institutions and social morality. According to him, quantification has been applied as a general strategy in building superior cultures of objectivity, in contrast to the dominance of insecure and unpredictable subjective criteria. It is assumed that quantification as a way of knowing endorses objectivity. But objectivity itself is not just an issue of cognition, it bears a heavy moral meaning as it prescribes how to perceive and how to deal not only with nature but also with fellow humans. And Porter reverses the arrow of explanation of quantification from society to nature: 'When we begin to comprehend the overwhelming appeal of quantification in business, government, and social research, we will also have learned something new about its role in physical chemistry and ecology' (Porter, 1995: viii).

The appeal of quantitative language derives from its promise of taming the subjective, personal, local, in favour of objective, impersonal, universal as superior values. Quantitative language is suited to deal in an impersonal way and on a universal scale with

human capabilities, needs, activities, relations, as well as with natural phenomena. In return, quantification allows dealing with a great number of items in a uniform way – ‘quantification is a technology of distance ... reliance on numbers and quantitative manipulation minimizes the need for intimate knowledge and personal trust. Quantification is well suited for communication that goes beyond the boundaries of locality and community’ (ibid.: ix).

Porter’s account of quantification not only goes beyond the scientific use of quantification, it also goes beyond manifest quantification and looks for its meaning in motivational processes. To the question of ‘why’, Porter offers a psychoanalytically informed interpretation:

... the drive to supplant personal judgment by quantitative rules reflects weakness and vulnerability. I interpret it as a response to conditions of distrust attending the absence of a secure and autonomous community ... referential statistics became standard in medicine and psychology as a response to internal disciplinary weakness and external regulatory pressures. (ibid.: xi)

From these exemplary accounts it is possible to conclude that quantification is far more than counting, measuring and calculating – it is a *Weltanschauung*, an anthropology, political philosophy, political economy, morality; it can become even a social malaise (‘quantophobia’). And it is only on these grounds that quantification as a privileged scientific method could be understood, applied and acknowledged. We encounter here again a dialectics of disenchantment and re-enchantment – quantification as a means of disenchantment through objectivity has constructed a world re-enriched with numbers.

A new turn away from a reliance on numbers only and a turn to words was one of the opening trajectories to the qualitative research approach.

A Return to Qualities of Phenomena

Coming back, on the one hand, to Toulmin’s reconstruction of ‘hidden agendas of modernity’ as an opening gambit for forgotten qualities, and, on the other, chronologically to the times of a ‘renaissance of the qualitative approach’, we refer to Toulmin’s assessment that in the 1950s, following the recovery from the Second World War, the most favourable intellectual and practical reasons already obtained for the re-establishment of the unity of human experience of the world which preceded the rationalistic and mechanistic reductive turns in the 17th century. It was, however, only after the 1960s that these reasons became socially effective and produced changes of attitude in philosophy, in science and in culture. The supremacy of physics was terminated and the understanding of science changed, the turning point in this development being marked by the publication of Thomas Kuhn’s *Structure of Scientific Revolutions* in 1962.

In the 1970s Paul Feyerabend argued that even the most successful scientific inquiries do not proceed in accordance with the prescribed rational method. Even more radically and provocatively, he wrote *Against Method* ‘in the conviction that *anarchism*, while perhaps not the most attractive *political* philosophy, is certainly, excellent medicine for

epistemology, and for the *philosophy of science*' (Feyerabend, 1975: 17). Practical philosophy, after a long period of domination of epistemological questions within philosophy, began to recover and regain recognition. The 1960s also saw the publication of the most important book in practical philosophy of the 20th century, Gadamer's *Wahrheit und Methode* [Truth and Method] (1960), which made the privileging of method the special target of sharp criticism and which expanded hermeneutics to the core philosophical discipline. Finally, 'in the 1980s there was some shift of opinion within psychology, as well as in the philosophy of the human sciences, away from causal, natural science explanation and towards explanation based on an understanding of meaning and language' (R. Smith, 1997: 868).

After the late 1960s there were also remarkable changes in social institutions and in orientation in life, which resulted in the emergence of a more diversified, more differentiated, more open, flexible and inquisitive society. The inherited forms of institutions (family and, particularly, educational institutions) were no longer regarded as inviolable. There was a growing awareness of the responsibility of society for ecological changes, which meant that the attitude of confrontation with nature and unlimited exploitation of its resources was no longer acceptable. Differentiation of social groups and particularization of individual positions began to gather momentum, which meant that it became increasingly important to understand the specific interpretive perspectives of participants. Demands for a reevaluation of all traditional patterns, roles, norms and values became increasingly urgent. They led to a rise of new social movements (peace, feminist, ecological, student) which became sites for new ways of thinking. Thus, feminist movements also developed a critique of dominant epistemological patterns, arguing for the inclusion of women's issues and perspectives in theory construction and scientific practice. As a consequence, women's studies and cultural studies have become places open to and very supportive of qualitative methodologies.

These social changes, together with the already existing critiques of the positivist conception of science, fostered the insight that the traditional research model could not satisfy the need for the study of new phenomena and forms of life and their meaning in a rapidly changing social context. Consequently, it became necessary to devise an approach that could unveil the meaning of what looked strange at first glance, an approach receptive to the idiosyncratic, the unusual, the unexpected, the marginal, or the singular (Flick *et al.*, 2003). The increasingly loud and influential political demand for the respect of the value and fullness of life had its epistemological counterpart in the demand for a return to the phenomena themselves, which had been largely lost sight of.

In these altered social and cultural circumstances, in which views concerning both science and the position of science had changed, it became possible to pose different research questions, to shift the focus of research interests, to redefine the research situation and the role of its participants – in a word, conditions were created for what histories of qualitative methods usually describe as the 'renaissance' of qualitative research.

The conditions for the renaissance of the qualitative approach are placed within this framework of the social and cultural shifts in the late 1960s. The changes were credited with a promise for a better life for individuals, especially for those who did not belong to dominant social groups (women, young, non-white). More specific changes in the economy from a dominance of production to consumption were also fruitful for qualitative

approaches – however, grasping the perspective, meaning and subjective values of customers was instrumental for profit, not necessarily for the benefits of customers.

An additional resource for the qualitative turn was a rising awareness of a crisis in psychology which, in pursuit of the model of the natural sciences, left aside many phenomena of human psychic life. A greater sensitivity to the historical and social embeddedness of psychological scientific knowledge was required.

Under such conditions characterized by an increasing individualization and pluralization of forms of life and thinking, methodological changes followed the same pattern. Since the 1970s these cultural shifts have been described as postmodern conditions (Lyotard, 1984[1979]). In analysing the position of the human sciences under postmodern conditions, Roger Smith in his *History of the Human Sciences* pointed out two ironical turns:

The irony, therefore, is that though the claims made for the deconstruction of human science concepts are perfectly general, the social reality was a largely unquestioned perpetuation of those concepts. . . . Late twentieth-century people dwelt in thought and desire in the self, while they inhabited an intellectual culture that replaced the self by words. (R. Smith, 1997: 860)

In many respect there is a remarkable affinity between postmodernity and the qualitative approach, and postmodernity is acknowledged as one of the sources of the qualitative turn. Both postmodernity and the qualitative approach share an anti-realist and anti-essentialist position and a strong plea for a plurality of forms, perspectives, interpretations. They both see language as a powerful tool in constructing social and subjective realities. In Gergen's assessment, 'the postmodern dialogues have given rise to an unparalleled flourishing in methodology within the social sciences more generally' (Gergen, 2001: 810). Discourse analysis, conversational analysis, narrative analyses, action research, performative psychology are just a few of the examples mentioned by Gergen in his account of promising developments in psychology in a postmodern context.

It should be taken into account, however, that affinity between postmodern tenets and the qualitative research paradigm can also be a source of additional difficulties for qualitative research to be recognized as a legitimized and valid scientific alternative to quantitatively oriented research. From the standpoint of the latter, qualitative research is seen as unscientific due to its use of small samples, or even individual case studies, the involvement of the research agent in the research subject matter, a heavy reliance on subjective accounts, etc. The question whether postmodernity is the best ally in the struggle for the epistemological possibility and necessity of the qualitative approach deserves serious discussion (Jovanović, 1999).

Reciprocally, these claims invite more epistemological and methodological reflection. Both methodological paradigms could benefit, however, from a more reflexive attitude toward research (R. Smith, 2005). And the quest for reflection applies not only to the whole research process itself, but also to external contexts. This is already implied in the very concept of validity to which both research programmes are committed.

In an internalist view of scientific knowledge, reflection on knowledge acquisition starts with the 'data' collection. Jaan Valsiner (an eminent specialist in developmental

and cultural psychology, very reflexive in his methodological attitude, and the founder, in 2005, of the *International Journal of Idiographic Science*) shows, in a convincing analysis of the research process, that ‘the “party politics” of viewing quantitative and qualitative perspectives as irreconcilable opposites leads us to overlook the basic unity of knowledge-construction’ (Valsiner, 2000: 101). He maintains that, contrary to the widespread simple (and naive) opinion, the process of the acquisition of scientific knowledge does not consist of an impartial accumulation of objectively given and finished data. Data, in spite of the etymological overtones of the term, are not given. Data are ‘constructed entities’, which, however, does not mean that they are not real, i.e. that they are fictitious. Data are the outcome of a process based on ‘the relating of theoretical, axiomatic and phenomenological aspects of knowing with the construction of methods’ (ibid.: 99–100).

It should be mentioned here that in spite of so many critiques of the positivist conception of knowledge in the philosophy of science, especially in the second part of the 20th century (Quine, Lakatos, Putnam), psychologists embracing the quantitative approach tend, to a great extent, to ignore these critical insights and to rely on the assumption that there exist pure data that can be expressed in independent observational statements.

Logically speaking, the starting points for research are, of course, the phenomena separated by complex and varied processes from the mass of other phenomena and made the object of study. It has already been shown that theoretical curiosity itself has a complex socio-cultural history of its own. But numerous other motives, including non-intellectual ones, participate in the production of curiosity about a particular phenomenon. Phenomena are first produced by the activities of life and, consequently, psychic phenomena themselves have a social history of their own. The question to be asked, then, is ‘What historical factors constituted in the first place the specific subject matter of the human psychic understanding of everyday life, so that it could be then made the object of scientific inquiry’ (Petzold, 1984: 4)?

In a thorough study of the social genesis of psychology, two German historians and theoreticians of psychology, Siegfried Jaeger and Irmingard Staeuble (1978), reconstruct the complex social processes which have put the problem of the individual on the agenda – first of society, and then also of science – and thus legitimated a new division of labour within science, i.e. the emergence of psychology as a science. Summarizing these processes ‘of long duration’ (in Braudel’s phrase), Irmingard Staeuble (1984) says:

Each culture has discussed the internal or subjective aspects of social life in terms of the driving life force or soul, or of the instinctive urges of human activity, or of the scope of human abilities. But it was only in the bourgeois society that the analysis of subjectivity was given a lasting privileged position . . . the seemingly atomized individuals had to reconsider their place in the world and their relation to it. (Staeuble, 1984: 11)

Accordingly, interest in the phenomena of subjective experience, the study of which is primarily the domain of psychology, has a social history of its own, just as the social focusing on subjectivity in the bourgeois society has its own social history.

This social history can be traced back to the very beginnings of human history, i.e. to the stage at which possibilities for the acquisition of knowledge of the world were

created. This is how the theory of knowledge is elaborated in Jürgen Habermas's critical theory. In tracing the historical self-production of human being, Habermas also reconstructs the conditions which are, as regards their function, transcendental conditions of the possibility of knowledge. They are not, however, formal conditions in the Kantian sense, but historically produced conditions. Interpreting Marx's metacriticism of Hegel, Habermas concludes:

... labour is not only a basic anthropological category, but also a category of the theory of knowledge. The system of object-based activities creates factual conditions of the possible reproduction of social life *as well as* transcendental conditions of the possible objectivity of the object of experience. When we regard human beings as belonging to the category of tool-making animals, we imply thereby a scheme of both activity *and* comprehension of the world. (Habermas, 1973[1968]: 55)

Habermas's next step is to associate knowledge and interest by interpreting interest as a constitutive element of knowledge. 'Conditions of instrumental activity arose contingently during the natural evolution of humankind; but they also link, by transcendental necessity, our knowledge of nature with the interest in the possible technical control of natural processes' (*ibid.*: 49). Habermas criticizes Marx because he interprets the process of the self-constitution of humankind merely in terms of labour, understood as the material activity of instrumental operations applied to external nature, and thus abolishes interaction as another form of practice, i.e. interaction as communication motivated by the practical interest in understanding among the members of the community. Habermas's conclusion that the theory of knowledge is necessarily connected with the theory of society, though reached from the perspective of the self-constitution of humankind, has, of course, implications in more specific contexts as well.

Bearing in mind this sociogenetic perspective, we turn again to Valsiner's microgenetic analysis of the research process. The phenomena which attract social and scientific interest, and especially the phenomena of the human world, are complex, dynamic and mutable. But even when they are comparatively simple, they are not accessible to cognition directly and in their entirety. They must be represented by means more suitable for further manipulation – and these are data. That is why Valsiner is so persuasive in his advocacy of the semiotic interpretation of data. Data actually satisfy the basic conditions for the recognition of the status of signs, for a sign represents something for somebody. Data represent a phenomenon for the researcher, but Valsiner warns, using a striking comparison, that 'the data act in relation to the phenomena as Achilles in the famous paradox in which Achilles can catch up with the tortoise, but not pass it' (Valsiner, 2000: 112).

Accordingly, data cannot overtake the phenomenon by any kind of 'quick' processing, although the phenomenon does not appear at all in the further course of research – until the conclusion, which is formulated in such a way that it passes judgment on the phenomenon under study. To put it more precisely, what is studied is not at all the phenomenon, but only the data believed to represent the phenomenon. Each representation necessarily poses the problem of representativeness, and the understanding of representativeness is a hermeneutic process. Representativeness is, however, dependent – not

only in a political context – on the recognition of its representative status, which is not merely a matter of knowledge, but also an issue of power and interests. Cognitive interests are not excluded, but they are not the only interests involved in this struggle for the recognition of the representative status of the selected data.

Data are also constituted in a dichotomous model, which reproduces and reinforces the Cartesian dualism of extended and non-extended things (*res extensa* and *res cogitans*) or the more specific dualism of primary and secondary qualities. In the case of methodology, dualism is expressed in the qualitative–quantitative opposition, with quantitative as the dominant pole. Methodological dualism is determined also by the type of selected data – quantitative or qualitative. Dualism is, of course, also a construction originating outside science, but adopted by science. However, the analysis of the process of data construction indicates that there is a single basis from which different paths branch out:

Data derivation can occur along two basic lines. One entails quantification of the phenomena: transforming selected qualities into numbers, that are then assumed to represent those qualities. The resulting data are quantitative data. In the other, the qualitative data emerge as the translation of selected features of the phenomena into some form of structured depiction. (ibid.: 100)

Valsiner's analysis shows that quantitative data (and the further quantitative methods of work with them) are also merely one way of representing the qualitative attributes of phenomena. That way implies that qualities are very rapidly and at an early stage transformed into quantitative data. This probably contributes to the early 'oblivion' of quality, i.e. to the postulation of quantity as the phenomenon itself. But this course in fact involves the peril of the 'alienation of the method from the phenomenon' (Valsiner, 2006: 587) and of the 'oblivion' or even 'loss' of the phenomenon. A parallel might be suggested with what Heidegger diagnosed, in the context of the history of philosophy, as the philosophical 'oblivion of being'. Sciences can really forget or lose the phenomena because of the research that was undertaken in the first place and which should justify its existence.

Mere factual sciences create mere factual people. . . . This science can tell us nothing in our existential predicament. It excludes in principle precisely those questions which are of burning interest to the human being, exposed as he is to the most fatal upheavals in our unfortunate times: the questions of the meaning or meaninglessness of the entire human existence. (Husserl, 1982[1936]: 4–5)

Husserl's warning that the sciences – in spite of the indubitable advances of knowledge and of its technical application – are losing their significance for what is most important in human life and what cannot be expressed without invoking meaning, is perhaps a warning even more relevant today than in 1936, when it was first published in Belgrade.

Conclusion

It may be concluded on the basis of anthropogenetic, sociogenetic and microgenetic analyses that the present distinction between quantitative and qualitative research, and

the distinction between primary and secondary qualities that preceded it, are not expressions of a natural, i.e. necessarily given, division; they are socially and culturally embedded conceptual instruments which have, as has been shown, their limitations as well as analytical and heuristic potential.

If the distinction between the qualitative and the quantitative cannot pretend to a legitimacy derived from the so-called natural order of things, it is clear that neither the conceptualization of their relationship in terms of exclusiveness nor an a priori guaranteed superiority of one approach over the other can be valid.

The growing methodological differentiation in the modern context may be understood as part of a more general differentiation process. Differentiation is, as is well known, understood as one of the defining traits of development in general. According to its self-understanding, the modern age is characterized by a project of progress, and one of the mechanisms for the achievement of this goal precisely is differentiation. In this sense, it may be argued that methodological differentiation is an indicator of the progress of science.

Methodological differentiation also responds to more differentiated social requirements. Members of complex societies are differentiated on increasingly diversified grounds (even the concept of humankind requires gender specification now). As increasingly differentiated objects of knowledge, they demand that their individual traits be taken into consideration, and this entails the application of methods capable of detecting these specific features. The age of radically realized individualism necessarily implies individualization of methods. The scientific counterpart of individualism is idiographic science. Multicultural societies have their methodological equivalent in methodological pluralism. This relationship should by no means be understood according to the model of reproductive reflection, but in terms of interaction. Methodological pluralism also participates in the general ascendancy of pluralism.

As the time since the last decades of the 20th century has been described as postmodern, in the sense of the end of 'grand narratives' (Lyotard, 1984[1979]), the same diagnosis can be made as far as the methodological landscape is concerned: this is also the time of a termination of the great story of the methodological unity of science. Moreover, advances made within that traditional methodological enterprise were subjected to critical examination even before the declared end of the project of modernity, a project in which science had played the crucial role. Qualitative methodology can thus find (moral) support in the postmodern reassertion of the small, the local and the temporary.

Qualitative methodology has, however, even stronger support in the ideology and institutions of the consumer society. Steinar Kvale, former director of the Centre for Qualitative Research in Aarhus, Denmark, regarded the market research carried out in the 1930s as a precursor of the later wave of academic qualitative research. He claimed that even today the greatest part of the knowledge obtained through qualitative interviews comes from market research. 'The ideology and methods of marketing have influenced and often preceded the application of corresponding concepts and techniques within humanistic therapies and qualitative research' (Kvale, 2003: 592).

It follows from this that the choice of qualitative methodology does not guarantee in itself an ethically superior position, although the view that it does is frequently voiced in the literature on qualitative research. It is true that the principles of qualitative

methodology demand an attitude to the participants in research different from that found in laboratory research (consideration of the natural context, inclusion of broad interpretive competences of the participants, recognition of their right to know the goal of research, verification of their interpretations, the researcher's duty to re-examine her or his own views, hypotheses and interpretations). But these principles can be nevertheless used for the instrumentalization of the participants' wishes and needs, and, in the long run, for manipulation. This becomes easier if qualitative research is reduced to mere application of method – which is in itself a departure from the constitutive norms of the qualitative approach.

As a specific 'methodology of choice' in postmodern, multicultural, consumer societies, qualitative research is also confronted with serious challenges by these societies. The already existing diversity is so overwhelming as to become indistinguishable, and further fragmentation is in progress. Paul Atkinson, one of the pioneers of the methodological analysis of the qualitative approach, points out that 'the field of qualitative research presents a confusing picture. The manifest variety is not always related systematically or in a principled fashion to any particular disciplinary, theoretical or substantive concern' (Atkinson, 2005: para. 7). Atkinson's plea for 'a renewed synthesis of qualitative research' (ibid.) is based on valid grounds, but it is not workable as a purely methodological solution.

Qualitative methodology might, however, also inspire a more general reflection on the meaning and limits of constant growth, of proliferating pluralization and of the fragmentation of the human world. Not all that is technologically possible is *ipso facto* necessary and legitimate. The qualitative approach has conceptual and methodological potential for the reinstatement of the question of meaning as the object not only of scientific research, but also of non-scientific consciousness and activities.

Notes

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1. Citations in the text refer to the Serbian translation (Borkenau, 1983[1934]).
2. Citations in the text refer to the Serbian translation (Piaget, 1979[1972]).
3. See note 1, above.
4. See note 1, above.

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