

# Society as experiment: sociological foundations for a self-experimental society

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## ABSTRACT

Experiments are generally thought of as actions or operations undertaken to test a scientific hypothesis in settings detached from the rest of society. In this paper a different notion of experiment will be discussed. It is an understanding that has been developed in the classical tradition of the Chicago School of Sociology since the 1890s, but has so far remained unexplored. This sociological understanding of experiment does not model itself strictly on the natural sciences. Rather, it implies a process of societal self-experimentation without a fixed setting of a sociological experimenter. The paper discusses this notion of experiment in relation to the recursive dependency of the application and the production of sociological knowledge. It is contended that this concept of a self-experimental society offers theoretical insights that could well prove fruitful for a sociological concept of experiment beyond the realm of the laboratory.

*Key words* Chicago School of Sociology, experiments in society, history of sociology

## INTRODUCTION

Experimentation is generally regarded as a constitutive element of modern science and is understood as its distinguishing characteristic when compared with forms of knowledge and methods of discovery prior to the 17th century. Its predominant features are the artificial set-up of an experimental system, the inducement of changes by external control of certain parameters and the measurements of observable effects. As a scientific method, experimentation aims not only at manipulating the mechanisms and functions of the experimental system but at understanding segments of reality represented by it (cf. Hacking, 1983). In the 19th century, the label of 'social experimentation' was occasionally used by authors such as Auguste Comte, John Stuart Mill, George Cornewall Lewis and Adolphe Quetelet for observation of events happening anyway rather than manipulation of variables by researchers. These events could be natural disasters such as a flooding, but also administrative actions (cf. Brown, 1997; Dehue, 2001, 2004). However, in this understanding almost anything can be labeled an experiment and indeed the concept of 'experiment' becomes a synonym for social change, planning, progress, or both evolution and revolution.

Whether the social sciences in general and sociology in particular could ever be experimental sciences that model themselves on the natural sciences has been controversially debated since the beginning of the institutionalization of the social sciences in the late 19th century. The most common objections to the experimental method have been (1) the argument that there are no causal laws to be found in the realm of social relations constituted by meaning, intention, reflexivity and institutions, (2) that social phenomena rule out any control by the experimenter, (3) that the subject matter of sociology is far too complex for experimentation, and finally (4) that artificial experiments on society would be ethically untenable (see, for example, Comte, 1854: 68-74; Durkheim, 1982: 147-50; Hart, 1921; Martin and Sell, 1979). To a certain degree, the marginalized status of experiment in sociology goes back to the duality between the natural sciences and the human sciences in the German tradition of idealistic philosophy dating from the 19th century. This tradition viewed *Naturwissenschaft* (natural science) and *Geisteswissenschaft* (humanities and social sciences) as qualitatively different. Natural laws, it was contended, had no place in the study of human culture. Human culture represents the realm of individual freedom, moral norms and historical uniqueness, but not of some kind of determinism. Nature and culture were essentially different realms of being and thus the natural scientific idea of experimenting with the object of study seemed inappropriate. If nature and culture are essentially different, so must be the instruments of research.

These objections, to be sure, cannot easily be countered. Consequently, the most prominent field in sociology that uses an experimental approach has

been small group research on behavioral change under stress. Early on, American sociologists outlined the possibilities and limits of experimental designs in sociological research with small groups (e.g. Angell, 1932; Brearley, 1931; Carr, 1929) and, more recently, experiments have been carried out under controlled conditions in a variety of settings such as schools or correction institutions (e.g. Bulmer, 1986; Meeker and Leik, 1995; Milgram, 1974; Oakley, 2000; Thye, 2000). However, these kinds of experiments do not figure prominently in mainstream sociology probably because closed institutions, where conditions most consistently resemble those of an experimental system, are not likely to yield results transferable to society in general (cf. Cicourel, 1964: 157-71; Hughes and Sharrock, 1997: 36-8).

Experimentation on a larger societal scale has been proposed since the 1960s by Donald Campbell and his respective co-authors and by authors involved in the so-called income maintenance experiments (IME) which initiated a new alliance between the social sciences and policy-making (Greenberg *et al.*, 2003). These authors introduced the concepts of quasi-experiments and social experimentation, which signify that an experimenter does not have complete control and thus cannot 'schedule treatments and measurements for optimal statistical efficiency, with complexity emerging only from that goal of efficiency' (Campbell and Stanley, 1963: 1). Here experiment is understood as 'that portion of research in which variables are manipulated and their effects upon other variables observed' (*ibid.*; see also Cook and Campbell, 1979). Even if these experiments do not always include random assignments to various treatments, they are nevertheless based upon deliberate interventions which serve to describe and understand causal effects. Large-scale social experimentation hit its first peak in the 1970s and it never ceased to play a part in public reform projects. From a methodological point of view it always has been considered as a more or less deficient mode of laboratory experiments. The dominant question was how to compensate the 'threats to experimental validity' (Campbell, 1969: 409).'

However, in this paper we will argue that a notion of experiment that is not modeled on the laboratory ideal of the natural sciences is conceivable, thus making it possible to develop a foundation for a notion of a self-experimental society and to shed light on the role of sociology. This notion of experiment will be informed by and developed on the basis of the thought of North American sociologists from the late 19th and early 20th centuries, especially by some authors who were later associated with the Chicago School of Sociology. Here the traditional idea of an experimenter manipulating the experimental system gave way to an alternative view. The development of modern society itself was understood as an experimental performance, with the sociological scientist partaking in the experiment as an observing participant.

In the following, the attempts to produce such an understanding of society, and their theoretical and methodological background, will be introduced in

order to discuss subsequently this neglected concept of 'society as experiment'. This idea of experiment, it is contended, offers some conceptual insights for contemporary approaches in social theory, especially as regards the current strain of thinking in which contemporary societies are conceived of as knowledge societies.

#### ANALYZING SOCIETY AND THE APPLICATION OF KNOWLEDGE

From the beginning of the institutionalization of American sociology as a university discipline, sociologists have tried to make their approaches more objective by attempting to adopt the language and methodology of the natural sciences. Included in this endeavor is the perspective in which society or the city are viewed as a laboratory. This metaphor has been in use at least since the founding of the Department of Sociology at the University of Chicago in 1892. When the University of Chicago was established that same year, the potential of sociological research for providing insights that would offer guidance for society was regarded as considerable.<sup>2</sup> In his book on Chicago and its early universities, Diner (1980: 50) put it in more general terms: 'This was not a time for introspection or self-criticism, but an era of growth and experimentation.' As a matter of fact, the idea of the city of Chicago as a social laboratory *par excellence* was one of the key suggestions of the first professor of the department, Albion W. Small (1854-1926), for an approach to the study of society.

This idea can be followed in the first American textbook of sociology; a monograph entitled *An Introduction to the Study of Society* (1894), which Small co-authored with George E. Vincent. In the introduction Small and Vincent described their book bluntly as a 'laboratory guide' to studying people in their 'every-day occupations' (1894: 15). Small and Vincent indeed believe that their 'book is to be compared with laboratory guides in biology' (*ibid.*: 17). In other words, it was a guidebook by means of which students of sociology could study the experiments going on in society, very much designed like a 'laboratory manual', a collection of chapters or 'units' describing the procedure for specific experiments or observations. This also included ready-made experiments, or experiments that were 'set up' by others. The perception of the city as a kind of laboratory and the study of human society as work in this laboratory was even presented in the university catalogue of the University of Chicago in 1899/1900. It was claimed that 'the city of Chicago is one of the most complete social laboratories in the world' (as quoted in Bannister, 1987: 39). Small and Vincent, together with other sociologists of their day, believed that sociological investigation should be understood as taking place inside a social laboratory. This social laboratory,

however, is a place, where knowledge gain and practical work need to be combined (Vincent, 1905). To Small even outcome of a social process is based on an experiment. In an article on 'the future of sociology' Small stated: 'All life is experimentation. Every spontaneous or voluntary association is an experiment, Every conscious or unconscious acquiescence in a habit is an experiment. . . . Each civilization in the world today, each mode of living side by side within or among between the several civilizations is an experiment' (Small, 1921: 187). He goes on to point out what that might mean for sociological research:

All the laboratories in the world could not carry on enough experiments to measure a thimbleful compared with the world of experimentation open to the observation of social science. The radical difference is that the laboratory scientists can arrange their own experiments while we social scientists for the most part have our experiments arranged for us. (ibid.: 188)

This powerful statement of all social life being exposed to experimental settings and engaged in experimental performances needs some qualification, since viewing all purposeful action as bound to risks of trial and error would not provide a conceptual basis for a new method of experimental sociology. In fact, it would partially fall back to the 19th-century usage of the term, when experimentation was related to human calamities, natural disasters, as well as acts of governments. Furthermore, even the distinction between biological and social action would become blurred. Still, Small's attempt at founding the idea of experimentation not in scientific method but in social life - and thereby importing the experimental design from the object under study into the method of the sociological observer - is a remarkable move. But it cries out for a more precise specification of the societal and cultural conditions that give social life its experimental characteristics. Stuart Chapin (1947), for instance, tried to clarify this perspective in that he introduced the category of 'ex post facto experiment', where an observed fact should be traced back to its causes.' For Chapin, this was an attempt to adapt as well as possible the sociological method to the experimental method of the natural sciences. As a reaction to this, Greenwood (1976: 46-7) elaborated on some of Chapin's early ideas and called Small's concept the hit-or-miss or the trial-and-error conception of experiment which Greenwood did not subsume under the definition of experiment.

The original Chicago ideas of experiments in society, however, went into a different direction. Early on, Edward C. Hayes, a student of Small's, tried to focus on the dynamics of human settlements as the 'class of problem phenomena different from the phenomena that other sciences explain' (Hayes, 1906: 47). The construction and permanent reconstruction of settlements is, on the one hand, determined by individual and institutional

planning, and on the other, affected by unforeseen ecological outcomes which condition further planning of change (see Gross, 2004). It is in this sense, that - in Small's words - 'experiments are arranged for us'. The notion of society as a laboratory was first assigned to social settlements, although later mainly used with reference to cities (see Deegan, 1988; Park, 1929). William I. Thomas (1914) also talked of an experiment when he analyzed the Prussian government's attempt to assimilate the Poles.<sup>4</sup>

Other sociologists of the Chicago department from the 1890s, like Charles Henderson or Charles Zueblin, used the term sociological laboratory to indicate the mixture of social settlements and sociological research as a unified part of the progressive development of society.<sup>5</sup> For them the significance of the scientific observation of society, that is, the sociological production of knowledge, and the relevance of social reform, went hand in hand. For instance, the application of newly gained knowledge to society and the design of strategies that would feed knowledge directly back into society, was practiced in studies on deviance, research on the ecological basis of society, on social insurance, journalism, on alleviation of unemployment, or the study of the impact of immigrants on social change (e.g. Addams, 1970; Henderson, 1899; Lathrop, 1894; Small and Vincent, 1894; Vincent, 1905; Zueblin, 1898, 1899). George Vincent, who, for instance, discussed a newly established School of Journalism at Columbia University (Vincent, 1905), felt that such an undertaking could succeed only when practical work was combined with sociological university training. That means that one should send out students into the real world to observe society, then bring practicing newspaper men into the classroom to discuss the observations with the students and teach them again how to make the analysis of these observations accessible to the wider society. 'Pushing the experiment farther' (1905: 302) to Vincent meant to combine 'practical experience with academic tastes' (ibid.: 310). It is this recursive process between knowledge-informed strategic action or institutional planning and methodically guided observation of practical development that can give the approach of Small (1921) an operational interpretation. It is society that runs the experiment, but sociology can be influential in determining its setting-up and starting conditions. The prospects of reform as well as the dangers of technocratic control implied in this approach are obvious.

In 1895, Jane Addams exemplified the spirit of this view of sociological research practice in society. In the prefatory note in a collection of articles on *Hull-House Maps and Papers* she stated that the primal ideal of the first social settlement in the city of Chicago (Hull-House, founded in 1889) was that a group of university men should reside in the poorer quarter of Chicago for the sake of informing and influencing the people there toward better local government and a wider social and intellectual life (Addams, 1970: vii-viii)<sup>6</sup> To be fair, 15 years later Addams confessed that she objected to the phrase

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'sociological laboratory', because 'settlements should be something much more human and spontaneous than such a phrase connotes' (Addams, 1967: 309). Analogically, Charles Henderson remarked that the people working in social settlements 'very naturally resent the notion that a Settlement is a "laboratory" where inquisitive investigators may pursue methods of vivisection and torture, in order to illustrate or test sociological theories' (Henderson, 1899: 183). Although Henderson understands this objection and calls it just, he nevertheless believes that exact science in settlement work is important. He repeatedly points out that the best scientific work is done by those who actual!} participate and work in the settlements themselves, since 'science and sentiment are not enemies, but comrades' (ibid.: 184). In this vein also, in almost every chapter of the *Hull-House* volume, Addams talks about experiments when referring to projects at Hull-House as well as to other activities connected with social settlements. The list ranges from experiments with different soft drinks as a substitute for alcohol to the general idea of 'cooperative experiments' when referring to team work with other city groups and institutions. It thus seemed that experiment for her also meant something that was not necessarily to take place in a 'scientific' and detached laboratory. However, it also did not mean that ever- social action or any moment in which a change had been effected was an experiment. Experimentation in society, so Addams and others implicitly suggest, always includes an *expected* element of uncertainty which cannot completely be eliminated by controlled planning. In fact, it should not. The multiple dimensions of human well-being make what we have called in the beginning the 'experimental system' so complex that the attempt to describe them completely, let alone to predict their course of development, would be illusory. Or to reverse the argument: people are not subject to experiments but actively participate in the experiment. It is the people who test theoretical assumptions about social life under realistic conditions which are to a certain degree controllable.

Addams's idea of different Hull-House projects as experiments also acknowledged the existence of certain boundary conditions or the controlled variation of parameters. Indeed, it has elements of an understanding of experiment as a reform process, a notion embraced prominently by Campbell (1969) at a later date. Hence in this tradition social processes are increasingly understood as experiments in coping with the structural complexity and the unpredictable dynamics of modern social city life conducted by society on itself. Sociologists can thus be conceived as detached and objective scientists who deliver objective knowledge and also as practitioners who almost simultaneously feed knowledge back into society to improve social conditions. This means that experimentation in society, as understood by the Chicago sociologists around 1900, allows the direct application of sociological knowledge to settlements which in turn feeds back data for the analysis of society,

and thus transforms this process into a sociological experiment. It furthermore places the observing sociologist in the midst of the experiment itself.

#### THE CITY AS A SOCIETAL EXPERIMENT

Taking up the notion of experiment embraced by the early founders of the discipline, Robert E. Park and Ernest Burgess of almost a generation later, in their influential textbook *Introduction to the Science of Sociology* (Park and Burgess, 1972) and especially the subsequent writings of Park, marshaled the early Chicago ideas of proto-participant observation into a widely respected research program. In the thought of Park, the city was to be treated as a social laboratory. The concept would include the walls, the houses, tools, buildings, and circulating things (Park, 1915). In this approach, all parts of the environment are interdependent and are moved by individual, collective and ecological forces.

In this context it needs to be noted that several historians of sociology have argued that Park opposed ideas of social reform (Deegan, 1988; Harkavy and Puckett, 1994; Raushenbush, 1979). However, early in his career as a press agent in Tuskegee, Park's practical interest was directed at the improvement of race relations (Park, 1906, 1908). Even after the First World War, when many hopes of social reformers had indeed been devastated, Park was committed to social rehabilitation and to using the Chicago community studies as an input into social service (Park, 1924). Here he especially mentioned studies of personal 'life histories' like those of Anderson on hobos (1923), where 'the real significance of the community's social institutions is revealed as they are in no other way' (Park, 1924: 268). Park mentioned sociological questions to be tackled:

Does the community give its people security, present and future? Does it make life interesting or is life, in spite of all its opportunities, dull? Does the community offer every individual, somewhere and in some group, a status, a place in which he feels that he functions and in which he can have a certain honest pride? (ibid.)

His general attitude to the distribution of sociological knowledge in society supported the view that he understood reform as integral to sociology. Admittedly, social settlements in the tradition of Jane Addams were to him mere 'outposts for observation' (Park, 1929: 4). However, he advised his students, for example, to write sentences so simple 'that the man in the street readily grasps their meaning. *You* are not writing for professors,' he is quoted by Raushenbush as saying, 'train yourself to write for the general public' (Raushenbush, 1979: 185). For Park it was important to shape public opinion (Bulmer, 1984: 70). He certainly called for the production of 'objective' and



'scientific' knowledge, but knowledge that was presented in an understandable form in order to encourage and spread scientific information. Sociology, in this perspective, was to be a catalyst for the public good.

In order to understand the chaotic development of the great cities it was, as Park later termed it, 'the natural areas' that should be investigated. The natural area describes a unit of investigation as distinguished from the 'artificially' defined cultural or political area. 'A region is called a "natural area" because it comes into existence without design, and performs a function, as in the case of the slum, that may be contrary to anybody's desire. It is a natural area because it has a natural history' (Park, 1929: 9). Every city, said Park, has these natural areas in the forms of business districts, dwellings, satellite cities, slums, and certain immigration belts. For Park, the city is 'a constellation of natural areas' (ibid.). Planning the development of these natural areas, thus, would be an attempt to direct the ecological basis of society. This is not as easy as it seems. 'Cities', Park wrote, 'are always getting out of hand. The actual plan of the city is never a mere artifact, it is always quite as much a product of nature as of design' (Park, 1925a: 674). Harvey Zorbaugh, one of Park's students, also observed that,

the city is curiously resistant to the fiat of man. Like the robot, created by man, it goes its own way indifferent to the will of its creator. Reformers have stormed, the avaricious have speculated, and the thoughtful have planned. But again and again their programs have met with obstacles. Human nature offers some opposition; traditions and institutions offer more; and - of especial significance - the very physical configuration of the city is unyielding to change. (Zorbaugh, 1926: 188)

In the Chicago School's understanding, the modern city and thus modern society in general were understood as a partial natural phenomenon. There is human nature and there is the physical environment that works together with or against human culture.<sup>8</sup> In his classic article on 'The City' (1915), Park explained that,

much of what we ordinarily regard as the city - its charters, formal organization, buildings, street railways, and so forth - is, or seems to be, mere artifact. But these things in themselves are utilities, adventitious devices that become part of the living city only when, and in so far as, through use and wont they connect themselves, like a tool in the hand of man, with the vital forces resident in individuals and community. (1915: 578)

Thus Park, in pointing out the 'natural' side in his understanding of the city, is simply calling special attention to modern society's very own dynamics, which result from modern means of planning and production. Every plan humans set out is actually tested within their own society. Natural areas are

made by humans, but their dynamics appear to be 'natural'. Quite often, it is a society radicalized against the paths and categories of their own planning. This, in turn, tells the observing sociologist something about society.

In Park's approach, the societal dynamic is always perceived in terms of its dependency on the material environment. The requirements of a city therefore lay in all the materials and commodities needed to sustain the city's inhabitants at home, at work, and at play. The actions of the inhabitants can have unplanned 'chaotic' consequences. In the chaotic city-jungle, Park's unity of research was what he has termed the 'natural area'. Natural areas can be regarded as poles of order in an otherwise disordered world. What complexity theorists today call islands of stability in a sea of disorder is, in a certain sense, identical to what the sociologists of the Chicago School of the 1920s would have said about their 'natural areas' in the City: these areas are only temporarily stable, and even then always uncertain. Changes that 'tend to have the character of something that is at least indigenous to the situation and the society in which it exists' (Park, 1939: 8) may evolve.

Park's perspective also needs to be perceived in the light of his rejection of the idea of the unconditional belief in scientific rationality and technological ingenuity. For example, Park and Burgess speak of the 'superstition of progress' (1972: 959). Instead of 'development' or 'progress' they prefer to speak of societal 'locomotion'. To frame societal locomotion, Park proposes four co-evolutionary variables that interact as different aspects of one society: '(1) population, (2) artifact (technological culture), (3) custom and beliefs (non-material culture), and (4) the natural resources' (Park, 1936: 15). In his understanding, all social life is to be perceived as existing on two analytical orders. First there is the cultural order, which included human planning, the consciousness of social action, and the ecological order that often interferes with human plans and leads them in a different direction. Below the cultural or social level

is the biotic community and the ecological organization in which man finds himself involved in competition and co-operation with all other living organisms.

Thus we may represent human society as a kind of cone or triangle, of which the basis is the ecological organization of human beings living together in a territorial unit, region, or natural area. (Park, 1939: 23)

The natural order Park is referring to here is an order without design or art. Hence, competition here could simply be understood as a trial or a test people undertake with their surrounding world - awaiting a reply, judging if it has been successful for their use or not. Humans set out a certain plan and observe how the plan works, or that it often leads in a different direction, sometimes quite contrary to the original idea. It can be called an experiment with and by the experimenters.

An invention from geography and to some extent from ecology was taken over with the idea of mapping the city of Chicago in the way Park had learned during his studies with the geographer Alfred Hettner at the University of Heidelberg in 1902,<sup>v</sup> and which developed into what Burgess called concentric zoning. Burgess's concentric zoning program viewed the functional zonation of land use in the city as a series of concentric land-use rings centered on a business district (e.g. Burgess, 1926, 1930). Generalizing, he argued that as modern cities expand in area and population, they become differentiated into specific regions roughly equivalent to zones of concentric rings. For Park, 'the city tends to take the form of a series of concentric circles. These different regions, located at different relative distances from the center, are characterized by different degrees of mobility of the population' (Park, 1926: 7). Although the city was regarded a natural phenomenon, Park nevertheless detected some foreseeable aspects of this naturalness which he and his colleagues depicted with the model of concentric zoning. It was a means of making the locomotion of city development visible. Of special interest was the question of how numerous new groups of immigrants accommodate to their new environment in the city, how people from different cultural and ethnic backgrounds keep their traditional identity and at the same time belong to the new society.

#### 'EXPERIMENTS IN EVERY FIELD OF SOCIAL LIFE'

Pursuing his idea of co-evolution, Park incorporated both the natural and the cultural into his view of the city as a laboratory. In that context he often stressed the complexity and complication of social relations in modern societies, but at the same time he believed that this offered new possibilities, especially in cities (e.g. 1915: 608). This is, for Park, that 'which justifies the view that would make the city a laboratory or a clinic in which human nature and social processes may be most conveniently and profitably studied' (1915: 612). In the revised version of his classic piece on 'The City' Park stated that 'the city, especially the great city, in which more than elsewhere human relations are likely to be impersonal and rational ... is in a very real sense a laboratory for the investigation of collective behavior' (Park, 1925b: 31). In terms of Park's perceptions, the development of the city and of society at large can thus be understood to be associated with processes that 'experimentally' result in a better understanding of how society 'works'. The cultural and the natural in the city have to be understood as different aspects of one society, which nevertheless should be distinguished analytically. The relation of the cultural and the natural levels of society is one of the key points in Park's view; it is the juxtaposition and reciprocal distinction of opposites that nevertheless belong in one complex called

society. Sociologists have the task of studying these interactions and the emerging developments.

In 1929, in a volume entitled *Chicago: An Experiment in Social Science Research*, the editors Thomas Smith and Leslie White gathered twelve articles on the research done in the city of Chicago. The lead article was Robert Park's 'The City as a Social Laboratory', where again Park described the city as 'the natural habitat of civilized man'. The city, for Park, represents modern society's most consistent and most successful attempt to remake the world people live in. However, he goes on to state:

If the city is the world which man created, it is the world in which he is henceforth condemned to live. Thus, indirectly and without any clear sense of the nature of his task, in making the city man has remade himself. It is in some such sense and in some such connection as this that we may think of the city as a social laboratory. (Park, 1929: 1)

That in modern society the experimenter is becoming part of the experiment is also captured in the preface to Nels Anderson's monograph *The Hobo*, where Park stated: 'If it is true that man made the city, it is quite as true that the city is now making man' (Park, 1923: v). Consequently, sociology is on its way to becoming 'an experimental science', and Park went on to clarify that 'experiments are going on in every held of social life, in industry, in politics, and in religion. In all these fields men are *guided* by some implicit or explicit *theory* of the situation, but this theory is not often stated in the form of a hypothesis and subjected to a test of the negative instances' (in Park and Burgess, 1972[1921]: 45; emphasis added).<sup>10</sup> Here Park is elaborating the idea articulated by Small that society itself is operative in designing social experiments. In Park's view, it is especially urban life where human society becomes more and more complex and, as he called it, human institutions grow rapidly: 'They grow under our very eyes, and the processes by which they grow are open to observation and so, eventually, to experimentation' (Park, 1929: 19).

In general, for Park the city is 'an advantageous place to study social life'. The urban environment gives social life the character of a laboratory, since 'in the city every characteristic of human nature is not only visible but is magnified'. Since the city 'magnifies, spreads out, and advertises human nature in all its various manifestations' it is 'of all places the one in which to discover the secrets of human hearts, and to study human nature and society' (ibid.). Park believed that as the city magnified human society in its various incarnations, it could be studied almost as if human society were being looked at through a telescope. The telescopic tool, however, is only made available to the observing sociologist by society itself. Again, for Park the city is the most prominent place for creating and supporting the experimental spirit. 'For the purpose of these experiments the city, with its natural regions, becomes a

"frame of reference", i.e. a device for controlling our observations of social conditions in their relation to human behavior' (Park, 1929: 11). But if experimentation is to mean more than simple trial and error, theory and design of action have to be taken seriously. It is this move that gives Park's reflection upon experiments performed in all fields of society a further boost.

In order to gain from the observation of these experiments. Park wants to discover the 'relation of cause and effect'. In his idea it 'is the business of sociology, in studying human affairs, to look for these same relations of cause and effect; to lay down general rules which enable us to predict from the existence of the situation A the succeeding situation B' (1914: 167), and he goes on: 'The method to which I refer is the intensive study of the typical and individual' (ibid.: 168). It is interesting to note here, that Park, referring to Wilhelm Windelband's distinction between the nomothetic and the idiosyncratic, on the one hand wants to 'push the scientific investigation and extend and improve our technique as far as possible', since this 'is the main business of sociology as a science and a method'. On the other hand 'it is necessary, in order to deal practically with human beings, to understand individual men and women' (Park, 1914: 167). For Park, implicitly, the sociological method would have to be understood as a way of getting inside group behavior and generating data in 'naturally' occurring contexts that can be generalized. In Park's method, the Weberian approach of a 'verstehende sociology' of trying to understand the typical and the nomothetic scientific approach of performing experiments are linked together. What Park contended here, was that modern society has turned itself into a place that can be understood as the laboratory for investigating sociologists.

Already in his early 'analysis of and participation in the Tuskegee experiment' (Lyman, 1992: 11), a program for African-American farmers for improving agricultural methods, Park calls the program 'one detail of an experiment in social upbuilding' (Park, 1908: 826). He later argued that city life offered all of human society simultaneously, something that scholars investigating isolated tribes in remote locations rarely encountered (Park, 1915).<sup>n</sup> With this type of experiment going on, the sociologist as experimenter is bound to participate in complex networks of actors imbedded in institutional and natural environments that the actors cannot completely control. Even less could they be controlled by sociologists.

For Park, the sociological observer has to partake in the experiment that society is undertaking on itself. What distinguished his idea from that of an earlier generation was the belief in the existence of an organized research process and reform in step with evolutionary changes which identified the place of sociology in society. In Park's and his colleagues' view, the application of newly gained sociological knowledge is in turn able to tell the observing sociologist something about the fundamentals of society. From this perspective the production of sociological knowledge and its application in

society are cyclically inter-dependent and cannot be treated as if they were detached from one another. Sociology, thus, is part of this experiment, since sociology has always been and always must be a part of that reality that it tries to explain. This radicalization has some important theoretical connections to contemporary sociology that we will turn to in the next section.

#### TOWARDS A NOTION OF A SELF-EXPERIMENTAL SOCIETY

After the decline of the hegemony of the Chicago School of Sociology in the late 1930s, the idea of experimentation in society lost importance over the more familiar scientific idea of experimentation as active manipulation. Its political bases have been the reform projects of Kennedy's 'New Frontier' and Johnson's 'Great Society' in the 1960s. The battles against racial desegregation, the decay of cities, the massive unemployment of the poor, and other programs have been fought with the assistance of scientific experts who have been influential in their design, observation and evaluation. Here the work of Donald Campbell and his notion of 'experimenting society' came in. In an attempt to improve reform strategies by learning from the successes and failures of implemented projects, Campbell and his co-workers advocated 'quasi-experimental' research designs. With an arsenal of methodological options, they believed that it was possible to counterbalance the multiple threats to which the scientific demand of validity is exposed. In this sense, the public domain is regarded as a place to test the efficacy of political programs (cf. Campbell and Stanley, 1963; Campbell, 1969; Campbell, 1981; Cook and Campbell, 1979). According to Campbell, the political system is determined by the proponents' commitment to proposing success and the opponents' firmly embedded expectancy of failure. In this view, learning about reform politics must rest with the scientists. Criticisms did not wait long. In its day, Campbell's well-intended approach was labeled technocratic. Taken full strength, so the criticism goes, an 'experimenting society' would mean no less than a technocratic colonization of the everyday world of potentially everybody.

However, in recent years in attempts to determine the features of the emerging knowledge society, the conception of an 'experimental society' or 'society as a laboratory' has again gained in prominence (Beck, 1999; Krohn and Weyer, 1994; Miller and O'Leary, 1994) reminiscent of the earlier ideas discussed here. In these conceptions, the laboratory is perceived as a novel form of innovation, where scientific research increasingly erases the received institutional boundaries between science and society. The expression 'knowledge society' does not allude only to the ever-increasing application of scientific knowledge, but also to the production and recombination of all kinds of knowledge in new settings of knowledge work (Stehr, 2001; Krohn, 2001). If these observers are correct, Donald Campbell's experimenting society is

already among us, although it did not emerge from social science recommendations in the service of society and government. Rather, in an experimental knowledge society, conventions and norms are increasingly replaced by decisions based on expert knowledge and situation-specific experience.

At the same time knowledge producers and researchers operate in non-scientific environments. Since new knowledge always allows us to see and better define new non-knowledge, the application of knowledge is associated with the generation of new uncertainties and the management of risks. Thus uncertainty is becoming one of the key indications for a knowledge society. Experimenting under conditions of uncertainties of this kind, it appears, will be one of the most distinctive characteristics of decision-making in future societies. Even if settings of decision-making are not locales of science in the traditional sense, they import and use methods of investigation and research (e.g. Levidow, 2001; Lezaun and Millo, 2004). Among these are conceptual modeling of complex situations, computer simulation of possible futures, and

- perhaps most promising - the turning of scenarios into 'real-world experiments' (Cross *et al.*, 2003). A knowledge society, then, would mean a society that builds its existence on certain kinds of experiments, practised outside the special domain of science. It is this view in Robert Park's understanding that presented a concept of experiment taking place in society and

- even more importantly - that is performed by society itself. What the early Chicago sociologists were indicating was the increasingly experimental character of modern social life in general. When characterizing the city as an experiment, Robert Park and his colleagues did not merely mean the experiments of city planners or social workers who take society as their object of study, but rather the experimental character of social action and societal development, which - taken full strength - takes the form of an open-ended experiment. A knowledge society thus would be a society of self-experimentation, similar to the Chicago School of Sociology's ideas.

The experimental nature of society, understood in this way, changes from an evolutionary process or, as Park termed it, a natural history, into an institutionalized strategy which includes all kinds of political, cultural, or aesthetic components. The understanding of society as experiment would thus broaden the notion of a 'knowledge society' in that it is perceived as a society that has its foundations in experimental practices which can only partially be modeled and simulated. Their outcomes are not predictable and they can cause constant adjustments rather than end in a final goal. More important, with the Chicagoans' concept of experiment, sociology would have a term that could be developed as a nexus between what was called the material (or natural) and the social. The impact of things tried out by people on their understanding of what they are doing as well as on their future planning is part of the recursive learning by experimenting. This picture of society experimenting with itself does not obliterate other understandings of society, but it appears more apt as regards the complexity and uncertainty of social action in the 21st century.

A question little discussed so far is the role of sociology. At first glance, a sociology of the self-experimental society understood as focusing on experiments going on in society is sentenced to passive observation. But several points are to be made here. First of all, our historical discussion has demonstrated that from the very beginning of American sociology, sociologists have imputed to society the language of experimenting. In fact, there can be no experimental practice without its reflexive description as experiment in terms of design, data collection, and interpretation of effects. In this sense, sociologists attempted to inform society about how to learn by experimenting. From a methodological point of view the most consequential distinction between experiments in the laboratory and experiments in the real world is control versus lack of control with respect to boundary conditions and parameter variation. Obviously, sociologists are not free to define at will the most feasible boundaries and parameter values. Instead they have to take over decisions made by the responsible political bodies. Still, these are deliberate decisions going into action by legislative or other institutional measures. Therefore, they can be taken as conditions of intervention to which effects can be causally related. To be sure, even the best controlled group experiments, e.g. in correction institutions, embody features of a self-experimental society as manipulation of subjects or 'victims' and have - or should have - legal, ethical and communicative limits. This leads to another point: involvement of participants. The standard method of experiment strictly detaches the experimenter from the experimental setting or system. Sociologists in a society of self-experimentation cannot possibly pursue this method. To a certain degree all social groups, from planners to sufferers, are participant observers. There exists a broad variety of methodological models for negotiating and organizing participatory strategies (see, for example, Gobster, 2001; Rowe and Frewer, 2004; Renn *et al.*, 1995). They all - at least implicitly - take seriously that sociological experiments differ in principle from the natural science experimental method.

A final remark refers to the 'knowledge interest' of these types of experiments. It should go without saying that on the one hand a purely scientific knowledge interest would not suffice to establish one single sociological experiment. On the other hand, it is by no means excluded that knowledge interest at least partially coincides with public interests. Again, there is no general solution for reconciling differing interests and for combining different modes of legitimization. However, there is always some scope for offering public participation and collective learning and gaining influence on defining experimental conditions, and establishing scientific observation. A sociology of the self-experimental society can be successful only in so far as it is considered to be part and parcel of social change and in so far as society accepts a self-description of being in itself experimental.



## SUMMARY AND OUTLOOK

This article has explored how early American sociologists understood society as increasingly developing into an experiment on itself on its ways of coping with the insecurity and uncertainty of the modern world. The notion of experiment as explored in this paper serves as a means to include both 'natural' and social elements in the understanding of social life and to clarify the position of the sociological observer in a self-experimental society. This perspective has got nothing to do with the idea of sociologists as experimenters in white coats. It is rather to be understood as called forth by the observation that in modern societies, social practices increasingly present themselves as experiments via a willingness to remain open to new forms of experience. The language of this presentation is, as we have tried to show, very much a contribution of sociology toward developing an appropriate conceptual means to understand self-conditioned but uncontrolled change. The early Chicago sociologists, beginning with Albion Small and the reform work of Jane Addams and going on to the ideas of Robert Park's focus on the city, worked at providing this conceptual background and basis for understanding societal change. Looking at society through the medium of experiment in this way is intriguing, since it changes our sociological perspective. Experiment now appears to be precariously perched both on the actions of its participants and on the structures created by the members of society. To sum up, two core insights may be emphasized.

*First*, the notion of experiment postulated here can be understood as comprising a deliberate intervention undertaken by a rapidly developing society which persistently sets up institutional conditions of action without being able to completely control the 'natural dynamics' of growth and decay.

*Second*, the Chicago approach of viewing settlements as social laboratories places the sociological experimenter right in the middle of experimental practices. The production of sociological knowledge and its application are thus able to coincide in an ongoing process of recursive learning. This recursive process successively guides the sociological observer to learn more about the fundamental constitution of society.

In order to understand the development of society, early Chicago sociologists tried to incorporate both the natural or ecological as well as the cultural into their analysis of modern society, in order to tackle increasing uncertainty in societal processes. To connect these two analytical orders, Robert Park developed his variation of experiment. The experimental performance comprises mutual action and reaction without allocating any fixed position to an independent 'scientific' experimenter. This perspective of an experimental society is not to be understood as a Utopian theory or a design for a future society, but rather as a sociological means to understand and analyze contemporary society's experimental character. This is an appropriate way to

understand modern society's development of its ever more complex and highly elaborated structures which allow as well as tame the uncertainties of modernization.

## NOTES

- 1 Schulz (1970: chap. 1) discusses a wide variety of definitions of 'experiment', where the restriction of the usage to laboratory research detached from the rest of society is but one of five meanings. He actually places five core definitions in chronological order to indicate their respective major meanings in a particular era. The second-to-last idea on Schulz's list is the artificial setting of material and machineries on the laboratory bench as developed since the 17th century (cf. Greenwood, 1976: 48-71; Siebel, 1965: 17-22). Interestingly enough, the last idea - experiment as a reformatory change and renewal - is what Schulz (1970: 22) implicitly sees as the most advanced form of experiment in contemporary society. Parthey and Wahl (1966: 231-4C) argue in a similar direction. Unfortunately neither Schulz nor Parthey and Wahl elaborate this point any further.
- 2 The literature on the history of the Chicago School of Sociology is immense. To name but a few of the books that over the years have sharpened our knowledge on the Chicago School and its place in North American sociology there are the following: Abbott (1999), Bulmer (1984), Paris (1967), Pine (1993), Harvey (1987), Lindner (1996), Maines (2001), Matthews (1977), Piatt (1996) and Shore (1987).
- 3 In a similar sense, Franklin Giddings (1924: 55-6) talked about 'partial experiments'. Earlier in his career Giddings claimed that although sociology should rely on systematic induction, he nevertheless believed that the 'experimental method of induction, however, is of little avail in the scientific study of society. Although social experimenting is at all times going on, it is difficult to isolate causes or to control conditions with scientific thoroughness' (Giddings, 1904: 174-5).
- 4 Thomas's usage of the term 'experiment' actually appears to be in-between the 19th-century idea of social experiment and the Chicago School approach, since in his view the Prussian government's policy to assimilate the Poles was formulated 'with resourcefulness, system, and ferocity' (Thomas, 1914: 85) - or, one could say, the experiment was set up by a government. But the outcome also 'discloses in a more complete way than I have found elsewhere the varieties of reaction which the coerced group may develop under this external pressure' (ibid.). Thus, the sociological observer finds ready-made control groups.
- 5 Mary Jo Deegan (1988: 36) argues that the improvement of settlements was associated with social work, which at that time was mainly undertaken by women. The detached observers' position of the sociologists, in Deegan's view, was the male perspective on the social laboratory, a perspective that women were not able to take. While Deegan's analysis of early women sociologists is important, a detailed study of the usage and meanings of 'experiment' and 'laboratory' in the development of early Chicago sociology shows a more balanced picture. For a correction of the view that women were not allowed to be part of the sociology community, see Coghlan (2004).

- 6 Hull-House was founded in September 1889 by Addams and Helen G. Starr. For a European discussion of late 19th-century settlement houses in America in its time, including a report on Chicago's Hull-House, see Alden (1898). A review of studies on Hull-House marking its 100th anniversary in 1989 can be found in Trolander (1991). A recent appraisal of settlement sociology between the 1880s and the 1930s can be found in Lengermann and Niebrugge-Brantley (2002).
- 7 All through the volume Addams tends to talk about 'cooperative experiments' with other city groups and institutions. To name but a few more examples: in chapter 2 she discusses different 'successful and unsuccessful experiments in self-government', and in chapter 12 'careful research and self-examination as a procedure to successful experiments in social reform'; in chapter 13 she tackles the topic of an 'experimental outdoor school' on one of Hull-House's balconies, and in chapter 16 the Hull-House theatre groups which are seen as a 'humble experiment'; and in chapter 7 she refers to the aforementioned experiments with different soft drinks as a substitute for alcohol.
- 8 This view is also compatible with Anthony Giddens's (1993) principles of structuration theory. Giddens observes: 'The production of society is brought about by the active constituting skills of its members, but draws upon resources, and depends upon conditions, of which they are unaware or which they perceive only dimly'(Giddens, 1993: 165).
- 9 On Park's acquaintance with geography and his studies with Hettner see Gross (2001: chap. 5), Lindner (1996: chap. 2), and especially Entrikin (1980).
- 10 Although this quote is taken from the Park and Burgess reader, the chapter that includes this passage was previously published in the *American Journal of Sociology* by Park as single author. We stress this, since Burgess rarely referred to the concept of experiment, and when he did (e.g. Burgess, 1929, 1930, 1948), it is not at all clear if he uses it in the sense of societal self-experimentation or as active manipulation in a controlled setting modeled along the experiment in physical sciences; he especially (1929: 47-8) indicates the latter. In this sense he talked about society as 'the laboratory for the sociologist' (Burgess, 1916: 499). On this aspect see also Bulmer (1984: 156-7).
- 11 However, an interesting use of the idea of experiment as well as laboratory can be found in the work of Ulysses Weatherly, who studied islands in the 'West Indies as a Sociological Laboratory' (Weatherly, 1923). A more recent, albeit loose, attempt for a notion of laboratory as a means to frame experimentation with drugs carried out in former German colonies before the First World War with patients suffering sleeping sickness is provided by Eckart (2002). Other excellent reconstructions of 'social experiments' in Africa between 1930 and 1970 can be found in Bonneuil (2000).

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