Max Weber’s Social Action Theory

Unlike structural theorists, social action theorists argue that people's behaviour and life-chances are not determined by their social background. Instead, social action theorists emphasises the role of the active individual and interactions between people in shaping personal identity and in turn the wider society.Jul 13, 2016

Max Weber (1864-1920) was one of the founding fathers of Sociology. Weber saw both structural and action approaches as necessary to developing a full understanding of society and social change.

For the purposes of A level Sociology we can reduce Weber’s extensive contribution to Sociology to three things:

Firstly he argued that ‘Verstehen’ or empathatic understanding is crucial to understanding human action and social change, a point which he emphasised in his classic study ‘The Protestant Ethic and the Spirit of Capitalism’;

secondly, he believed we could make generalisations about the basic types of motivation for human action (there are four basic types) and

thirdly, he still argued that structure shaped human action, because certain societies or groups encourage certain general types of motivation (but within these general types, there is a lot of variation possible).

This final point can be illustrated by a quote from one of his most important works ‘Economy and Society’, first published in the 1920s, in which he said ‘Sociology is a science concerning itself with interpretive understanding of social action and thereby with a causal explanation of its course and consequences.’

**Social Action and Verstehen**

Weber argued that before the cause of an action could be ascertained you had to understand the meaning attached to it by the individual. He distinguished between two types of understanding.

First he referred to Aktuelles Verstehen – or direct observational understanding, where you just observe what people are doing. For example, it is possible to observe what people are doing – for example, you can observe someone chopping wood, or you can even ascertain (with reasonable certainty) someone’s emotional state from their body language or facial expression. However, observational understanding alone is not sufficient to explain social action.

The second type of understanding is Eklarendes Verstehen – or Empathetic Understanding – in which sociologists must try to understand the meaning of an act in terms of the motives that have given rise to it. This type of understanding would require you to find out why someone is chopping wood – Are they doing it because they need the firewood, are they just clearing a forest as part of their job, are they working off anger, just doing it because they enjoy it? To achieve this Weber argued that you had to get into the shoes of people doing the activity.

**Weber’s Four Types of Action (and types of society)**

Max Weber didn’t just believe that individuals shape society – societies encourage certain types of motive for action – for example, the religion of Calvinism encouraged people to save money, which eventually led to capitalism

Weber believes that there are four ideal types of social actions. Ideal types are used as a tool to look at real cases and compare them to the ideal types to see where they fall. No social action is purely just one of the four types.

Traditional Social Action: actions controlled by traditions, “the way it has always been done”

Affective Social Action: actions determined by one’s specific affections and emotional state, you do not think about the consequences

Value Rational Social Action: actions that are determined by a conscious belief in the inherent value of a type of behavior (ex: religion)

Instrumental-Rational Social Action: actions that are carried out to achieve a certain goal, you do something because it leads to a result

To illustrate these different types of action consider someone “going to school” in terms of these four ideal types: Traditionally, one may attend college because her grandparents, parents, aunts, and uncles have as well. They wish to continue the family tradition and continue with college as well. When relating to affective, one may go to school just because they enjoy learning. They love going to college whether or not it will make them broke. With value rational, one may attend college because it’s a part of his/her religion that everyone must receive the proper education. Therefore, this person attends college for that reason only. Finally, one may go to college because he/she may want an amazing job in the future and in order to get that job, he/she needs a college degree.

Max Weber was particularly interested in the later of these – he believed that modern societies encouraged ‘Instrumental-Action’ – that is we are encouraged to do things in the most efficient way (e.g. driving to work) rather than thinking about whether driving to work is the right thing to do (which would be value-rational action.

Weber believed that modern societies were obsessed with efficiency – modernizing and getting things done, such that questions of ethics, affection and tradition were brushed to one side – this has the consequence of making people miserable and leading to enormous social problems. Weber was actually very depressed about this and had a mental breakdown towards the end of his life.

**Evaluations of Max Weber’s Social Action Theory**

Positive – He recognized that we need to understand individual meanings to understand how societies change (unlike Marxism)

Positive – The idea that individual motives can lead to huge structural level changes such as the emergence of Capitalism is especially interesting!

Negative – Still too much focus on society shaping the individual – symbolic interactionism argues that individuals have more freedom to shape their identities.

Negative – there might well be more types of motivation than just four types

Negative – his theory of the emergence of capitalism has been criticized as there is evidence of some forms of capitalism existing before Protestantism.

**CONFLICT THEORY OF GEORGE SIMMEL**

**Simmel, Georg. Georg Simmel (1858-1918), German philosopher and sociologist, is still a controversial figure. While some hail him as the founder of modern sociology, others see in him only a brilliant stylist who made no original contribution and failed to develop a systematic theory.**

**Conflict theory sees social life as a competition, and focuses on the distribution of resources, power, and inequality. Unlike functionalist theory, conflict theory is better at explaining social change, and weaker at explaining social stability.**

**Simmel (1858–1918) believed that conflict can help integrate and stabilize a society. ... Simmel also showed that groups work to create internal solidarity, centralize power, and reduce dissent. Resolving conflicts can reduce tension and hostility and can pave the way for future agreements.**

Georg Simmel was oriented towards describing the form of basic social

processes (hence his terminology formal sociology). His method was to observe

and abstract the essential properties from processes and events in a wide variety

of empirical contexts with a hope to develop abstract statements that depicted

the most fundamental social processes of social organisation. This is very well

illustrated in his short essay on social conflict.

Although like Marx, Simmel viewed conflict as ubiquitous and

inevitable in society, unlike the former, he did not view social structure as

domination and subjugation, but rather as an inseparable mingling

associative and dissociative processes. The influence of the prevailing

organismic doctrines led Simmel to seek out the consequences of conflict for

social continuity rather than change. In his own words, “Conflict is thus

designed to resolve dualisms; it is a way of achieving some kind of unity…”

(Jonathan H. Turner 1987:139)

which serves as a major source

of insight for contemporary conflict theory in sociology. (Jonathan H. Turner,

1987, p.138)

**Simmel viewed conflict as a reflection of not only of conflicts of**

**interests but also of hostile instincts**. He viewed one of the ultimate sources

 Georg Simmel, 1956, Conflict and the Web of Group Affiliation.

of conflict to lie in the innate biological makeup of human actors. The

innate conflict instinct (hate) in humans can be exacerbated by conflicts of

interest or mitigated by harmonious relations as well as by instincts for

love.

Simmel saw conflict as one of the social processes that contribute to

maintain the ‘body social’ by ultimately promoting solidarity and

unification. Simmel’s view of social organisation can be distilled as follows:

1. Social relationships occur within systemic contexts that can only be

typified as an organic intermingling of associative and dissociative

processes;

2. Such processes are a reflection of both the instinctual impulses of

actors and the imperatives dictated by various types of social

relationships;

3. Conflict processes are therefore a ubiquitous feature of social

systems, but they do not necessarily, in all cases, lead to breakdown

of the system and/or to social change.

4. Conflict, in fact, is one of the principal processes operating to

preserve the social whole and/or some of its subparts.

Simmel conceptualized conflict as a variable, with ‘competition’ (the

more regulated and parallel strivings of parties toward a mutually

exclusive end) and ‘fight’ (the less regulated and more direct combative

activities of parties against each other) as the two polar ends of that

variable continuum. Therefore, unlike Marx who saw conflict resulting in

revolutionary structural changes, Simmel focussed on less intense and less

violent conflict forms that promoted the solidarity, integration and orderly

change of the system. Simmel’s propositions of conflict intensity directly

relates emotional involvement (resulting through solidarity and harmony

among members), group goals transcending individual goals and ambiguity of

ends to violence. (Jonathan H. Turner 1987:141)

For Simmel, unlike Marx, the increased level of organization within

conflict groups enables them to realize many of their goals without overt

violence, and such realization of clearly defined goals cuts down internal

system tension and hence promotes integration. Marx visualized mild

conflicts as intensifying as the parties become increasingly polarized and finally

the resulting violent conflict would lead to radical social change. In contrast,

Simmel observed that conflicts of low intensity and high frequency in

systems of high degrees of interdependence release tensions and become

normatively regulated, thereby promoting stability in social systems.

Violence potential of conflicts is reduced due to increasing organisation of

the groups and better articulation of their interests which initiate milder

forms of conflict involving competition, bargaining and compromise. Thus

Simmel’s analysis provides more options on conflict outcomes and their

underlying processes and conditions than Marx’s emancipatory analysis.

Peace Education : DAISAKO IKEDA

Ikeda Daisaku, born 2 January 1928) is a Japanese Buddhist philosopher, educator, author, and nuclear disarmament advocate.[2][3][4] He has served as the third president and then honorary president of the Soka Gakkai, the largest of Japan's new religious movements.[5] Ikeda is the founding president of the Soka Gakkai International (SGI), the world's largest Buddhist lay organization with approximately 12 million practitioners in 192 countries and territories.[6]

Ikeda was born in Tokyo, Japan, in 1928, to a family of seaweed farmers. He survived the devastation of World War II as a teenager, which he said left an indelible mark on his life and fueled his quest to solve the fundamental causes of human conflict. At age 19, Ikeda began practicing Nichiren Buddhism and joined a youth group of the Soka Gakkai Buddhist association, which led to his lifelong work developing the global peace movement of SGI and founding dozens of institutions dedicated to fostering peace, culture and education.[7]:12[8]

"I consider education to be the culminating undertaking of my life. That is because the victory of education means the victory of the people."1

"Education must foster people who intuitively understand and know--in their minds, in their hearts, with their entire being--the irreplaceable value of human beings and the natural world. I believe such education embodies the timeless struggle of human civilization to create an unerring path to peace."2--Daisaku Ikeda .

Ikeda regards education as fundamental to peace and positive social change. Through his dialogues, writings and collaborations, he has been active in reorienting education toward those values and approaches

Concern for the growth and happiness of each person is, in Ikeda's view, the essential spirit of education

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In Ikeda's philosophy the ultimate purpose of education, as with the purpose of life, can be expressed as "happiness." This perspective was the basis from which Tsunesaburo Makiguchi, the father of Soka education, developed his ideas. The word here refers to the sense of fulfillment that comes from developing and deepening one's humanity, rather than a more superficial state of simply being untroubled or having one's desires realized. Ikeda's educational philosophy therefore is essentially about how to empower people to lead genuinely happy, creative lives.

For Ikeda, the relationship between education and peace is vital. As he has commented, "The essential responsibility of education is to foster in the minds of youth a love of humanity and a spirit to dedicate oneself for the sake of the people and for society."3 And again, "The task of education must be fundamentally to ensure that knowledge serves to further the cause of human happiness and peace."4 [Read full text]

Elementary school students in Tokyo, 1944. During 1930s and '40s, Japan's education system became a tool for inculcating unquestioning loyalty to the state.

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Ikeda's conviction in this ideal is fueled by his own opposite experience of education as a young man in Japan in the 1930s and 40s. For the Japanese militarist government of the time, the education system was an effective means for molding docile, unquestioning subjects who were willing to give their lives in service of the state's aims. There have been numerous other examples in which education has functioned merely to produce self-serving elites. When education's function is framed in terms of serving some national interest--a means of producing people of value to big business and industry, for example--its essential purpose of fostering human beings grounded in respect for humanity will be obscured.

The ideal of fostering a love of humanity and a dedication to peace thus represents a core motivation of Soka education--an effort to direct learning to the service of humanity. It is a motivation that Ikeda believes both students and educators should keep clearly in focus. The ideal of global citizenship--individuals rounded in a reverence for life and motivated by a sense of responsibility to create a peaceful and just global society for all--is central to Ikeda's vision. One of the mottoes that Ikeda has created for Soka University in Japan, for example, encourages students to always ponder the question: "For what purpose should one cultivate wisdom?"

Evolutionary epistemology: KARL POPPER

 E E KARL POPPER ,refers to three distinct topics:

 (1) the biological evolution of cognitive mechanisms in animals and humans,

(2) a theory that knowledge itself evolves by natural selection, and

 (3) the study of the historical discovery of new abstract entities such as abstract number or abstract value that necessarily precede the individual acquisition and usage of such abstractions.

Cognition in biological evolution​

"Evolutionary epistemology" can refer to a branch of epistemology that applies the concepts of biological evolution to the growth of animal and human cognition. It argues that the mind is in part genetically determined and that its structure and function reflect adaptation, a nonteleological process of interaction between the organism and its environment. A cognitive trait tending to increase inclusive fitness in a given population should therefore grow more common over time, and a trait tending to prevent its carriers from passing on their genes should show up less and less frequently.

Growth of knowledge​

"Evolutionary epistemology" can also refer to a theory that applies the concepts of biological evolution to the growth of human knowledge, and argues that units of knowledge themselves, particularly scientific theories, evolve according to selection. In this case, a theory—like the germ theory of disease—becomes more or less credible according to changes in the body of knowledge surrounding it.

One of the hallmarks of evolutionary epistemology is the notion that empirical testing alone does not justify the pragmatic value of scientific theories, but rather that social and methodological processes select those theories with the closest "fit" to a given problem. The mere fact that a theory has survived the most rigorous empirical tests available does not, in the calculus of probability, predict its ability to survive future testing. Karl Popper used Newtonian physics as an example of a body of theories so thoroughly confirmed by testing as to be considered unassailable, but which were nevertheless overturned by Einstein's insights into the nature of space-time. For the evolutionary epistemologist, all theories are true only provisionally, regardless of the degree of empirical testing they have survived.]

Process of discovering new abstract entities​

"Evolutionary epistemology" can also refer to the opposite of (onto)genetic epistemology, namely phylogenetic epistemology as the historical discovery and reification of abstractions that necessarily precedes the learning of such abstractions by individuals. Piaget dismissed this possibility, stating

"The fundamental hypothesis of genetic epistemology is that there is a parallelism between the progress made in the logical and rational organization of knowledge and the corresponding formative psychological processes. Well, now, if that is our hypothesis, what will be our field of study? Of course the most fruitful, most obvious field of study would be reconstituting human history: the history of human thinking in prehistoric man. Unfortunately, we are not very well informed about the psychology of Neanderthal man or about the psychology of Homo siniensis of Teilhard de Chardin. Since this field of biogenesis is not available to us, we shall do as biologists do and turn to ontogenesis. Nothing could be more accessible to study than the ontogenesis of these notions. There are children all around us." [2]

Piaget was mistaken in so quickly dismissing the study of phylogenetic epistemology, as there is much historical data available about the origins and evolution of the various notational systems that reify different kinds of abstract entity.

Popper gave its first comprehensive treatment in his 1970 article "Sketch of an Evolutionary Epistemology" [3], after Donald T. Campbell had coined the phrase in a letter to Popper [4] in 1963. Campbell wrote on evolutionary epistemology in 1974[5]; Piaget alluded to it in 1974[6] and described the concept as one of five possible theories in The Origins of Intelligence in Children (1936).[7]

Multimodality Theory : KRESS

 Multimodality is a theory which looks at how people communicate and interact with each other, not just through writing (which is one mode) but also through speaking, gesture, gaze, and visual forms (which are many modes).Feb 6, 2020

Multimodality is the application of multiple literacies within one medium. For example, understanding a televised weather forecast (medium) involves understanding spoken language, written language, weather specific language (such as temperature scales), geography, and symbols (clouds, sun, rain, etc.). Multiple literacies or "modes" contribute to an audience's understanding of a composition. Everything from the placement of images to the organization of the content to the method of delivery creates meaning. This is the result of a shift from isolated text being relied on as the primary source of communication, to the image being utilized more frequently in the digital age.[1] Multimodality describes communication practices in terms of the textual, aural, linguistic, spatial, and visual resources used to compose messages.[2]

While all communication, literacy, and composing practices are and always have been multimodal,[3] academic and scientific attention to the phenomenon only started gaining momentum in the 1960s. Work by Roland Barthes and others has led to a broad range of disciplinarily distinct approaches. More recently, rhetoric and composition instructors have been including multimodality as part of their coursework. In their position statement on Understanding and Teaching Writing: Guiding Principles, the National Council of Teachers of English state that "'writing' ranges broadly from written language (such as that used in this statement), to graphics, to mathematical notation."[4]

Gunther Kress's scholarship on multimodality is canonical within social semiotic approaches and has a considerable influence in many other approaches as well (writing studies). Kress defines mode in two ways. In the first, a mode “is a socially and culturally shaped resource for making meaning. Image, writing, layout, speech, moving images are examples of different modes.”[5] In the second, “semiotic modes, similarly, are shaped by both the intrinsic characteristics and potentialities of the medium and by the requirements, histories and values of societies and their cultures.” [6]

Thus, every mode has a different modal resource, which is historically and culturally situated and which breaks it down into its parts, because “each has distinct potentials [and limitations] for meaning.”[7] For example, breaking down writing into its modal resources would be syntactic, grammatical, lexical resources and graphic resources. Graphic resources can be broken down into font size, type, etc. These resources are not deterministic, however. In Kress's theory, “mode is meaningful: it is shaped by and carries the ‘deep’ ontological and historical/social orientations of a society and its cultures with it into every sign. Mode names the material resources shaped in often long histories of social endeavor.”[8] Modes shape and are shaped by the systems in which they participate. Modes may aggregate into multimodal ensembles, shaped over time into familiar cultural forms, a good example being film, which combines visual modes, modes of dramatic action and speech, music and other sounds. Multimodal work in this field includes van Leeuwen;[9] Bateman and Schmidt;[10] and Burn and Parker's theory of the kineikonic mode.[11]

In social semiotic accounts medium is the substance in which meaning is realized and through which it becomes available to others. Mediums include video, image, text, audio, etc. Socially, medium includes semiotic, sociocultural, and technological practices such as film, newspaper, a billboard, radio, television, theater, a classroom, etc. Multimodality makes use of the electronic medium by creating digital modes with the interlacing of image, writing, layout, speech, and video. Mediums have become modes of delivery that take the current and future contexts into consideration. Accounts in media studies overlap with these concerns, often emphasising more the value of media as social institutions for distributing particular kinds of communications.

Approaches to digital media from the perspective of multimodality address in particular the fact that multimodality, and multimodal communication, is now progressively evolving from a solely print-based to a screen-based presentation, the speaker and audience relationship evolves as well. Due to the growing presence of digital media over the last decade, the central mode of representation is no longer just text; recently, the use of imagery has become more prominent. In its current use for Internet and network-based composition, the term “multimodality” has become even more prevalent, applying to various forms of text such as fine art, literature, social media and advertising. An important related term to multimodality is multiliteracy, which is the comprehension of different modes in communication – not only to read text, but also to read other modes such as sound and image. Whether and how a message is understood is accredited to multiliteracy.

Education

Multimodality in the 21st century has caused educational institutions to consider changing the forms of its traditional aspects of classroom education. With a rise in digital and Internet literacy, new modes of communication are needed in the classroom in addition to print, from visual texts to digital e-books. Rather than replacing traditional literacy values, multimodality augments and increases literacy for educational communities by introducing new forms. According to Miller and McVee, authors of Multimodal Composing in Classrooms, “These new literacies do not set aside traditional literacies. Students still need to know how to read and write, but new literacies are integrated."[28] The learning outcomes of the classroom stay the same, including – but are not limited to – reading, writing, and language skills. However, these learning outcomes are now being presented in new forms as multimodality in the classroom which suggests a shift from traditional media such as paper-based text to more modern media such as screen-based texts. The choice to integrate multimodal forms in the classroom is still controversial within educational communities. The idea of learning has changed over the years and now, some argue, must adapt to the personal and affective needs of new students. In order for classroom communities to be legitimately multimodal, all members of the community must share expectations about what can be done with through integration, requiring a "shift in many educators’ thinking about what constitutes literacy teaching and learning in a world no longer bound by print text.".

Classroom literacy

Multimodality in classrooms has brought about the need for an evolving definition of literacy. According to Gunther Kress, a popular theorist of multimodality, literacy usually refers to the combination of letters and words to make messages and meaning and can often be attached to other words in order to express knowledge of the separate fields, such as visual- or computer-literacy. However, as multimodality becomes more common, not only in classrooms, but in work and social environments, the definition of literacy extends beyond the classroom and beyond traditional texts. Instead of referring only to reading and alphabetic writing, or being extended to other fields, literacy and its definition now encompass multiple modes. It has become more than just reading and writing, and now includes visual, technological, and social uses among others.

Georgia Tech's writing and communication program created a definition of multimodality based on the acronym, WOVEN.[34] The acronym explains how communication can be written, oral, visual, electronic, and nonverbal. Communication has multiple modes that can work together to create meaning and understanding. The goal of the program is to ensure students are able to communicate effectively in their everyday lives using various modes and media.

As classroom technologies become more prolific, so do multimodal assignments. Students in the 21st century have more options for communicating digitally, be it texting, blogging, or through social media.[35] This rise in computer-controlled communication has required classes to become multimodal in order to teach students the skills required in the 21st-century work environment.[35] However, in the classroom setting, multimodality is more than just combining multiple technologies, but rather creating meaning through the integration of multiple modes. Students are learning through a combination of these modes, including sound, gestures, speech, images and text. For example, in digital components of lessons, there are often pictures, videos, and sound bites as well as the text to help students grasp a better understanding of the subject. Multimodality also requires that teachers move beyond teaching with just text, as the printed word is only one of many modes students must learn and use.

The application of visual literacy in English classroom can be traced back to 1946 when the instructor's edition of the popular Dick and Jane elementary reader series suggested teaching students to "read pictures as well as words" (p. 15).[37] During the 1960s, a couple of reports issued by the National Council of Teachers of English suggested using television and other mass media such as newspapers, magazines, radio, motion pictures, and comic books in English classroom. The situation is similar in postsecondary writing instruction. Since 1972, visual elements have been incorporated into some popular twentieth-century college writing textbooks like James McCrimmon's Writing with a Purpose.

Higher education

Colleges and universities around the world are beginning to use multimodal assignments to adapt to the technology currently available. Assigning multimodal work also requires professors to learn how to teach multimodal literacy. Implementing multimodality in higher education is being researched to find out the best way to teach and assign multimodal tasks.

Multimodality in the college setting can be seen in an article by Teresa Morell, where she discusses how teaching and learning elicit meaning through modes such as language, speaking, writing, gesturing, and space. The study observes an instructor who conducts a multimodal group activity with students. Previous studies observed different classes using modes such as gestures, classroom space, and PowerPoints. The current study observes an instructors combined use of multiple modes in teaching to see its effect on student participation and conceptual understanding. She explains the different spaces of the classroom, including the authoritative space, interactional space, and personal space. The analysis displays how an instructors multimodal choices involve student participation and understanding. On average the instructor used three to four modes, most often being some kind of gaze, gesture, and speech. He got students to participate by formulating a group definition of cultural stereotypes. It was found that those who are learning a second language depend on more than just spoken and written word for conceptual learning, meaning multimodal education has benefits.

Multimodal assignments involve many aspects other than written words, which may be beyond an instructors education. Educators have been taught how to grade traditional assignments, but not those that utilize links, photos, videos or other modes. Dawn Lombardi is a college professor who admitted to her students that she was a bit "technologically challenged," when assigning a multimodal essay using graphics. The most difficult part regarding these assignments is the assessment. Educators struggle to grade these assignments because the meaning conveyed may not be what the student intended. They must return to the basics of teaching to configure what they want their students to learn, achieve, and demonstrate in order to create criteria for multimodal tasks. Lombardi made grading criteria based on creativity, context, substance, process, and collaboration which was presented to the students prior to beginning the essay.

Social Network Analysis (Scott, Prell)

Summary: Social Network Analysis looks at how people within social networks (for example: families, clubs, Facebook groups) relate to each other and what these interactions say about both the individual actors and the entire social network.

Originators & Proponents: John Scott, Christina Prell, Stephen P. Borgatti, Martin G. Everett, Jeffrey C. Johnson

Keywords: actors, bonds, clustering, cohesion, communication, community, connection, interaction, mapping, modeling, network theory, nodes, social network diagrams, social relationships, ties, visualizations

Social Network Analysis (Scott, Prell)

Social network analysis looks at how people (actors) relate to each other across their social networks[1]. It is based on network theory (from computer science), which explains that certain behaviors can be better understood by diagramming or mapping how people or groups share information, talk, or interact in other ways.

A social network can be a variety of sizes: from small (e.g., two-generational immediate family), to more mid-sized (e.g., school class, sports team, or club), to quite large (e.g., Facebook group, college/university alumni group).

Social network analysis can include looking at people’s actions in online social networks (e.g., Facebook, Google+, MySpace), in addition to the more traditional social networks that exist off of the Web, like families, clubs, hobby groups, political parties, and friend/acquaintance groups[3].

Social network analysis is useful in any research field which looks at how people relate to each other. These fields can span from anthropology to communications to sociology. There are mapping and visualization software available which can help researchers understand social networks from a more objective basis and explain their findings to others.

This work was combined with the insights of Gestalt psychology and field theory in the early ‘sociometry’ of Jacob Moreno (1934). Studying school classroom friendship choices, Moreno charted the connections as graphical patterns of points and lines and invented the term ‘sociogram’ to refer to these graphs. These insights were central to the group dynamics studies sponsored by the Michigan Research Centre and the Tavistock Institute in the 1940s and 1950s (Cartwright and Zander 1953; and see Harary et al. 1965). The first actual use of the term social network, however, had been in anthropology, and it was here that many early advances were made. Alfred Radcliffe Brown saw the social structure as a network of relations, while his student and colleague Lloyd Warner explored network cliques in his community studies. Some of Warner’s ideas had been sharpened during his involvement in the famous Hawthorne studies, where the researchers had been struck by the similarities between the electrical wiring diagrams that littered the Hawthorne factory and the patterns of connection among the workers who produced this wiring.

The psychological and anthropological works came together in the early 1950s when researchers atManchester University and its Rhodes-Livingstone Institute — especially Clyde Mitchell and John Barnes —cooperated with the social psychological work on families being undertaken by Elizabeth Bott (1957) in her studies in London. These writers forwarded the use of formal mathematical ideas to study community and family networks (Mitchell 1969).

The mathematics that lay behind all the early uses of social network analysis was graph theory. This branch of mathematics developed as a way of representing any structure as a configuration of points (or vertices) and lines (or edges). Theorems were constructed concerning the shapes or topologies produced by interconnections. Individual points could be described in terms of their local pattern of connections and their centrality in their networks, while whole networks could be described in terms of their overall density and their division into cliques. These mathematical ideas found a ready application in sociological work.