## Thinking about configurations: Max Weber and modern social science

Ola Agevall (1)

School of Social Sciences Växjö Universitet

#### **ABSTRACT**

The article addresses Max Weber's relevance for modern social science. The first part is a quantitative assessment of Weber's fate in mainstream sociology; the second part presents an argument that Weber's work contains elements of combinatorial thinking which makes it suitable for analysis in terms of the methodological apparatus developed by Charles Ragin. On the one hand, it is shown that Ragin's notation and concepts are useful in bringing out some important features in Weber's methodology and substantive writings. On the other hand, it is suggested that Weber's use of configurations extend into areas that have received little attention in mainstream sociology.

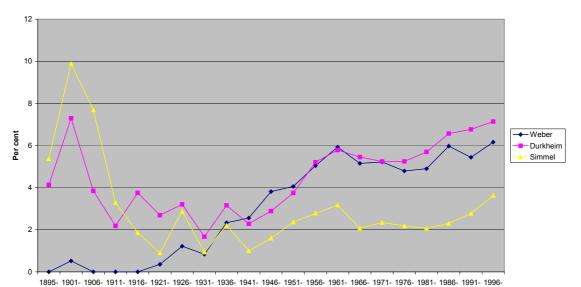
#### 1. Introduction

The ambition of this special issue of *Etica & politica / Ethics & Politics* is to assess Max Weber's relevance for contemporary social science at the beginning of the third millennium. That is a warranted question, but it is too vast in scope to be addressed in one piece. It needs to be sliced up into more manageable chunks. And the question is how. For my part, I would like to begin by taking my cue from Weber's *Science as a Vocation*, and indulge in that pedantic custom, peculiar to the empirical scientist, of "always beginning with the external conditions". (2) That is to say, we start out by treating the question as an empirical matter, and ask to what extent elements of weberian thought are present in contemporary social science. This exposition is followed by a discussion where we take leave of the "is" and enter the "ought".

In purely empirical terms, Max Weber has an impressive record. He is rarely absent from sociology textbooks, and there is a bewildering amount of specialist literature on different facets of his work. These categories of writings are no doubt important in their own right. The first provides an index of transmission to future generations of scholars; the second points to the evolution of a separate field of

research, halfway between philology and the scientific disciplines it feeds on and recruits scholars from. Yet, important as these two areas are, they give little information about Max Weber's position in mainstream social scientific research. To this end, we must turn to other sources. I am not so much concerned here with citation frequencies, as measured through the Social Sciences Citation Index. These figures do tell us something about Weber's current popularity, and they reveal a lot about co-citation patterns. But to the extent that Weber's concepts have become so commonplace that references are thought to be superfluous, they pass through the loopholes of the SSCI. Moreover, the SSCI only takes us back to 1986.

From this point of view it seems appropriate to use JSTOR as a data source. It allows us to perform Boolean searches in a full-text archive that covers the major Anglophone sociological journals from 1895 onwards. (3) Let us see, first, how often Max Weber is mentioned in sociological journals from 1895 to 2000, and how the number of articles mentioning varies from one period to the next. (4) One complication with this procedure is that the number of journals increases over time. But this problem is circumvented by reporting ratios, i.e. the number of articles quoting Max Weber over the total number of articles, instead of absolute numbers. The corresponding figures for Durkheim and Simmel serve as points of comparison:



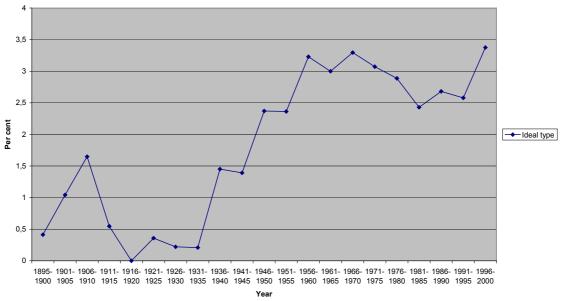
1910 1915 1920 1925 1930 1935 1940 1945 1950 1955 1960 1965 1970 1975 1980 1985 1990 1995 2000

Proportion of sociological articles quoting the classics

The figures show, unsurprisingly, that Max Weber's popularity with the sociologists began to rise in the second half of the 1930s, i.e. immediately after the publication of Talcott Parsons' *The Structure of Social Action* (1937). From the mid 1960s, Max Weber is mentioned in approximately every twentieth sociological article. By any standard, that is a high proportion. The comparison with the fate of other sociological classics reveals that Weber is not the only one who receives massive attention from the sociological community.

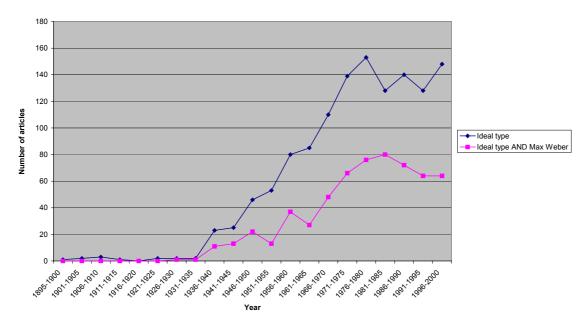
But JSTOR searches need not be limited to persons. Let us therefore employ the same material to charter the uses of a couple of concepts and notions with a weberian pedigree. Consider first the concept "ideal type" and its derivatives. (5) A JSTOR-search in sociological articles yields a total of 1271 entries for the period 1895-2000, roughly 12 articles per year. As we would expect, they are not evenly distributed. If we transform the absolute numbers into ratios, in the same way as we did above, we get the following picture:

### Proportion of sociological articles quoting "ideal type"



The early peak should be interpreted with care, as should all figures from the early years. The number of items is low up until the 1920s, varying between 23 and 48 articles annually, which means that percentage levels are sensitive to very small variations even as we compound the figures into five-year periods. We are on safer ground from 1925 onwards, for the average number of articles per annum takes a leap to 180 and continues to rise. (6) But the early years are interesting from another perspective. It is not until 1930 that "ideal type" becomes associated with Max Weber. Until then, the terms have no relation to the German economist, at least not in the sociological articles archived with JSTOR. As used then, the concept "ideal type" is used in another sense, and is grafted upon other sources. (7) The next chart portrays the number of articles that mention "ideal type", and the corresponding number of articles belonging to the sub-class of articles quoting both "ideal type" and "Max Weber".

Ideal type and Max Weber: co-citation



The figures show that the take-off for the concept coincides with the upsurge for Weber's popularity. It came in the second half of the 1930s. From this point onwards, the concept becomes increasingly entrenched in sociology. The rise is broken in the 1980s, and quotation frequencies oscillate within the interval 128 and 148 articles per five-year period (between 2.4 and 3.4 per cent of the total number of sociological articles). (8)

What is of particular interest here is that, from the mid 1930s to the 1980s, frequencies for the sub-class dovetail at half distance with those for the superordinate class. Approximately half of the articles that quote "ideal type" also mention Max Weber. One obvious consequence of the fact that the correspondence between the two classes has never been perfect is that there are many "hidden" references to Weber that cannot be detected by citation frequencies. We can safely assume that the lion's share of the sociologists who mention the phrase have a weberian version in mind. They may have quoted it from secondary sources, or they may have assumed that the origin and meaning of the concept is so well known that they could safely go on with their business without making references to Max Weber. The concept is thus de-coupled from its inventor and leads a life of its own. At the same time, there is a very good correlation between the two classes up until 1980. Within a certain interval, information about how many articles belong to the sub-class allows us to infer the number of articles in the super-ordinate class, and vice versa. That neat correspondence seems to be broken after the 1980s, a sign that the de-coupling process has evolved further.

The analysis of the fate of "ideal types" in mainstream sociology could be taken further, e.g. by asking questions about which journals serve as niches for the

concept or by inquiring into its different uses. Such inquiries, however, would take us too far from our present concerns. We shall instead move on to consider a second weberian concept, namely "protestant ethic". Again, the focus is on the reception in mainstream sociology, rather than on the voluminous specialist literature. *The Protestant Ethic and the Spirit of Capitalism* became available in English in 1930, through Talcott Parsons' translation. This was also the decade when "protestant ethic" made its debut in sociological journal articles. But as the next chart shows, the real take-off came later.

# 2,5

NOST, NOSS

1941,1945

10361 0KD

Nost Nosts

1,980°,1980°

1,040,1940

1876,1830

\81<sup>1</sup>\82

Per cent

0.5

1910, 1920 C. 1920

Proportion of articles quoting "protestant ethic"

The phrase "protestant ethic" never quite reaches the same level of popularity enjoyed by "ideal type" but their trajectories are nevertheless similar in shape: a sharp rise immediately before or during the Second World War, a long period of escalation in the Post-War period, and a subsequent stabilisation at fairly high levels. The patterns for the individual concepts recapitulate the pattern for references to "Max Weber".

1986, et v. 1915

(916,1987,1988, 1988)

181,1865

1,00°1,00°5

→ Protestant ethic

An argument could be made that what we see in these figures is the making of a classic. They tell the story of sociology's emerging reliance on a corpus of 19<sup>th</sup> and early 20<sup>th</sup> century greats. It is indeed a curious fact that the first crystallisation of the classics coincides with sociology's scientistic era, i.e. with the attempt to rid the discipline from historical ballast and fashion it after the natural sciences. It is the same period when variable-oriented analysis became the preferred mode of analysis. Our present concern, however, is not with the general development of the discipline but with the fate of Max Weber in mainstream sociology. From this point

of view, the data quoted above gives ample evidence that Weber and his conceptual constructs are thoroughly entrenched in sociological discourse.

#### 2. Beyond the empirical pattern

These few empirical facts about Max Weber's reception in the sociological community do not exhaust the discussion of Weber's relevance for contemporary social science. By this I do not mean that a larger set of weberian concepts should be made objects empirical analysis in the same vein as we have done with "ideal type" and "protestant ethic". To be sure, a host of candidate concepts queue up were we to go down that road. What are the fates of, for example, "charisma", "value-freedom", "Zweckrational", "Wertrational", "bureaucracy", "status", or "legitimacy"? Each of these concepts are amenable to empirical inquiry, even if some of them pose technical difficulties. "Zweckrational" has been translated differently by different authors, as has "Wertfreiheit". And apart from parallel renderings of the same concept, we also have to grapple with the fact that Weber has no monopoly on everyday words such as "bureaucracy", "legitimacy", and "status", so that measuring the "weberness" of their uses would require extensive reading of the texts.

These are formidable problems, but they are not insurmountable and they are not the reason we stop short of further empirical analysis. The reason is that we want to pose a question of a different order. Granted that at least part of Weber's work has in fact trickled into mainstream sociology, we are still entitled to ask whether his continued influence is justified. Should sociologists devote so much attention to him? Should they use his conceptual apparatus, reiterate and adapt his arguments, follow his methodological advice? As long as we remain on the level of general references to Max Weber, there is only one way of answering these questions. Yes, sociologists should still read Weber, provided that doing so helps them formulate, clarify, or solve the problems at hand. This attitude is truly weberian. It is nevertheless far from clear that sociologists have always heeded to this rule. I am not convinced, for example, that the analysis of social action has benefitted from repeatedly returning to Max Weber's typology of action. In the end, the value of weberian notions must be assessed by those who do work in the respective research fields.

Now consider a complication. Some of Weber's concepts and ideas have been torn from the vast edifice and are disposed of freely among modern social scientists. As Peter Baehr has shown,(9) the "iron cage" – surely the emblem of Max Weber's thought as represented in textbooks – is Talcott Parsons' invention. Weber's original metaphor, "stahlhartes Gehäuse", evokes a quite different image. But as Baehr himself recognises, the vivid parsonian metaphor has become canonical in

the social sciences.(10) This is exactly the point. Even if Baehr's own translation returns to the original metaphor, it is far from likely that the "iron cage" will go away. The example is admittedly somewhat inconsequential, but it clarifies a general principle: as the specialist literature revises old conceptions, the new Max Weber will still be in the company of some old Webers. Which of these Doppelgänger should we opt for? In view of what was said above, there is a sound argument for preferring the fertile-and-incorrect interpretation over the barren-and-correct one. This being said, however, I would also argue that the Weber of the modern specialist literature has more interesting things to say than the blander duplicates who inhabit mainstream sociology. It is perhaps significant that economic sociology, a field where some leading scholars are also intimately familiar with the specialist literature on Weber, is one area where Weber's thought is put to creative use.

Cross-fertilisation between these literatures would thus appear to be a means of extracting interesting research problems and avoiding analytical cul-de-sac. In fact, the entire argument so far has been a prelude to a concrete suggestion in that direction. To introduce it, we return to the concepts analysed above. Considering that the concept "ideal type" is used in roughly three per cent of the articles in sociological journals, this particular innovation must clearly be perceived to be a valuable instrument for the researcher. The concept has also been subject to extensive treatment in the Weber literature. If the frequent use in mainstream sociology signal a self-contained and self-explanatory concept, the specialist literature is hard pressed to determine its meaning, uses, and theoretical functions. Specialists are concerned with how ideal types relate to adequate cause theory. They worry whether the model for Weber's ideal type concept is found in Georg Simmel's, Heinrich Rickert's, or someone else's writings. They follow the different formulations of the concept, and confront it with its uses in Weber's substantive writings. In short, they attempt to specify the concept by aligning it to proper contexts.

What shall we make of this picture? Mainstream sociologists use "ideal types" so frequently that it must be perceived to be an analytical prêt-à-porter, but when Weber specialists get their hands on it, the clarity of the procedure seems to evaporate. The uncertainty is easy to explain. Max Weber's famous formulations basically describe the outer contours of a procedure, coupled with a list of specifications of what the ideal type is not. To give a flavour of how he delimits the concept, it is useful to quote from the entry in Richard Swedberg's Max Weber dictionary:

**Ideal type (Idealtypus)** This is one of Weber's most celebrated concepts, and it can in all brevity be described as an attempt to capture what is essential about a social phenomenon through an analytical exaggeration of some of its aspects. What

is at the heart of an ideal type, according to Weber's famous formulation, is an 'analytical accentuation (*Steigerung*) of certain elements of reality'. [...] An ideal type is a conceptual tool with which to approach reality; and in this sense it is a 'conceptual construct' (Gedankenbild; MSS: 93). When confronted with an empirical situation, it is often helpful to introduce a series of ideal types. In doing so, Weber argues, it is more important to capture what is essential about a phenomenon than to merely reproduce the often confusing empirical situation: 'sharp differentiation in concrete fact is often impossible, but this makes clarity in the analytical distinctions all the more important' (ES: 214). In this sense, the introduction of an ideal type serves as a first step in analysis. The ideal type 'serves as a harbor until one has learned to navigate safely in the vast sea of empirical facts' (MSS: 104). Once some order has been brought into an analysis through the introduction of ideal types, however, it may be important for the sociologist to decide why and how empirical reality deviates from these. (11)

Thus, unless Weber's formulations are inserted into a theoretical context, we have very little to go on. We have known for a long time what the ideal type is not. But it is a long step from there to a conception of the operations involved that is sufficiently clear to allow the empirical scientists to proceed with their business. From the practicing scientists' point of view, the key issue is obviously *how* this analytical accentuation should be done. They presumably need to know how to go about selecting what is "essential" about their phenomenon, and how to distinguish a good ideal type from a bad one. So there is good reason for mainstream sociologists to consult the specialist literature on Weber. But this still leaves us with the question why the "ideal type" is one of Weber's most celebrated concepts. I have a few suggestions, and they will point the way for the argument in the remainder of the article.

The first reason is that, even in this muddled state, the concept names a common practice. After all, Max Weber's intention with coining it was not to create a new practice but to codify and explicate an existing one. Consciously, or (more often) unconsciously, social scientists deal in ideal typical constructs: they engage in abstraction, accentuate parts of empirical reality, and form heuristic concepts from the elements so extracted. Surely there is some comfort in having a name for what you are doing.

Second, the concept may have been appealing precisely because its construction principles are not written in stone. Its very indeterminacy made it adaptable and possible to accommodate within diverse research traditions. Nascent scientistic sociology could conceive of it in terms of property spaces, case study researchers could incorporate it into their work, as could their comparativist colleagues. Hence, even when the rift between different emerging research strands widened, the ideal

type could continue to have a habitat in several traditions. It remains an open question, of course, just how weberian these various uses are.

The third reason provides a link between the first two. There is one aspect of Max Weber's "ideal type" that makes it savoury for empirical scientists who are not content to limit their research repertoire to regression analysis: it is combinatorial by design. It encourages the researcher to think in terms of configurations, rather than in terms of a bundle of separate variables. Charles Ragin has argued, and I believe correctly, that combinatorial reasoning in this sense is both central to the understanding of social phenomena and a constitutive part of the language of sociological theorising. (12)

The crux, in Ragin's view, is that sociological methods have evolved in ways which tend to obstruct the dialogue between ideas and evidence. A methodological divide has developed, where one part of the scholarly community favours variable-oriented studies and another part involves in case-oriented research. Both strands of research has its merits. Variable-oriented studies are powerful vehicles of generalisation, case-oriented studies are good at capturing complexity and diversity. The former uses individual cases to work out general explanations, the latter use the theoretical apparatus to interpret the case(s) at hand. On the other hand, both has its limitations. The homogenising assumptions of variable-oriented techniques, and their tendency to dissolve cases into single variables, blocks their ability to test the kind of configurational ideas which are part and parcel of sociological theory. And they give little guidance for the interpretation of specific cases, considered as wholes. Case-oriented studies, suitable for interpreting cases as wholes, are illequipped to assess the generality and scope conditions of their conclusions. Ragin has made an elaborate attempt to combine the virtues of both strands of research, i.e. to preserve the focus on complexity, diversity, and interpretation, while at the same time allowing the researcher to make generalisations in a structured and orderly fashion. But Charles Ragin's qualitative comparative analysis and fuzzy-set social science are recent innovations, and they are not embraced by everyone. The ideal type has long served as a justification for the case-oriented researcher. Vagueness apart, it had the promising feature of being a methodological concept which encouraged *configurational* thinking and had an air of *generality*.

This leads up to the "ought" I promised at the outset. Case-oriented researchers who sensed that there was something useful – for their purposes – about the concept "ideal type" were not barking up the wrong tree. It is counter-productive, however, to restrict vision to this one concept. We should rather take a broader sweep over Max Weber's methodology and see how his deliberations are shaped and channelled by a configurational thinking that is very much akin to that which has been developed by Charles Ragin. By doing so, we get to see Max Weber as a precursor to recent developments in sociological methods. Conversely, Charles Ragin's elaboration of the logic of configurational analysis provides clues to the

interpretation of some features of Max Weber's methodology. There is an elective affinity between Max Weber's *Problemlage* and that of modern sociology, and it warrants renewed attention to Weber's methodology, from mainstream sociologists as well as from Weber specialists.

#### 3. Concepts, combinations, configurations

How do we preserve a configurational view of cases without sacrificing generality, and vice versa? How does the task of explaining unique events square with that of developing new theories? These questions are at the heart of Charles Ragin's qualitative comparative analysis. They were no less important for Max Weber. In the introduction to *Economy and Society*, Günther Roth remarks that "...sociologists live, and suffer, from their dual task: to develop generalizations and to explain particular cases." (13) The formulation captures a key concern in Max Weber's work, but it could equally well serve as a motto for one of Charles Ragin's books. Max Weber was above all concerned with interpreting and explaining particular events in the social world. This follows directly from the concept of value-relation. This concept, which Weber borrows from Heinrich Rickert, names the governing point of view which sets the cultural sciences apart from the natural sciences. To illustrate the logic peculiar to the latter category of sciences, we do best to consider how they go about transforming a certain sense datum into a scientific datum. Assume that we try to test a hypothesis, or work out a theory, by way of experiment. It is clear, then, that each observation, every single datum, can be substituted for any other datum in the relevant class. What is important is not that it is this drop of chemical solution that reacts in this way. Any other drop from the sample could do. Indeed, if a drop of chemical solution does not behave the same way as other drops of the same kind, our first guess would be that it has been contaminated. To be sure, an alternative possibility is that we are on the track of a scientific discovery, but the drop is nevertheless useless in this particular experiment. In other words: the natural sciences homogenise data, and only take an interest in those features which all instances have in common.

All this does of course make perfectly good sense. The problem is that the cultural sciences operate differently. We are not interested in the unification of Germany, the French revolution, or the rise of capitalism *merely* because they are instances of some general classes. They are interesting to us in their own right – because of their cultural significance, because they have a relation to values. Consequently, we are not only interested in those traits which the French revolution have in common with all other revolutions, but are rather anxious to capture its distinguishing features and to describe it in such a way that relevant complexity is preserved.

It has been pointed out by several Weber scholars that Max Weber failed to provide definite criteria for when a phenomenon is value-relevant. But perhaps this was not quite the point. As it stands, the notion that the cultural sciences have value-relations as their governing point of view ascribes a peculiar dynamics to these sciences. The natural sciences are piecing together a giant jigsaw-puzzle. Their findings can be valuable either because they provide new applications of established theoretical knowledge, or because they contribute to the overall theoretical picture. In both cases, the dynamics of scientific evolution is intimately linked to the stock of established knowledge: a problem is taken up because it has a meaningful relation to theory. This is not necessarily so in the cultural sciences. We expect the cultural sciences to take an interest in the fall of the Soviet Union, or the attack on September 11, regardless of whether these events would help formulate a new general theory or are suitable applications of some preconceived theory. We want to explain them because they matter. And if this is the case, then the dynamics of the cultural sciences will often be driven by extra-theoretical concerns. This, at any rate, was Max Weber's position. He placed heavy emphasis on the understanding and explanation of unique events. But this is not to say that he neglected, or could avoid, the issue of generalisation. I am not thinking here of the fact that Weber must establish and make reference to "empirical regularities". This goes without saying. He needs such regularities both to create an object of inquiry – as he does, for example, in the first section of The Protestant Ethic and the Spirit of Capitalism - and to anchor his causal claims. His adaptation of adequate cause theory to the cultural sciences, and his frequent allusions to probabilistic formulations in *Economy and Society*, make it clear that empirical regularities play an important role in his work. Yet there is another reason why issues of generalisation are unavoidable for Weber. Generalisation is in fact a constitutive part of his endeavour to explain unique events. To see why this is so, it is instructive to use The Protestant Ethic and the Spirit of Capitalism as an example, and read it through the lenses provided by Charles Ragin. In Weber's famous essay, configurational thinking enters the argument at two junctures. The first is in the conceptualisation of the explanandum, i.e. the "spirit" of capitalism: «If any object can be found for which the use of this term can have any meaning, then it can only be a "historical individual," that is, a complex of configurations [Zusammenhänge] in historical reality which we group together conceptually from the point of view of their *cultural significance* to form a single whole.

A historical concept like this, however, as it relates to a phenomenon which is significant in terms of its *individual characteristics*, cannot be defined or demarcated according to the schema: "genus proximum, differentia specifica". It must be composed from its individual elements, taken from historical reality. It will not be possible to arrive at the ultimate *definition* of the concept at the outset but only at the *conclusion* of the investigation». (14)

The passage is filled with *termini technici* – e.g. "historical individual", "cultural significance", and the allusion to the impossibility of demarcating such objects of inquiry along the lines of aristotelian definition – derived from Heinrich Rickert's work. They have no doubt contributed to shaking off a few readers, in our day as well as in his own time. Be that as it may: Weber wants to identify and explain what he has chosen to term the "spirit" of capitalism. But he wants to extract it from the empirical material rather than postulate it. The object of explanation is thus to be pieced together as we go along, from those individual elements which actually turn up in the data. By the end of the inquiry, he will thus have amassed an array of individual elements (a, b, c, ..., n) which, taken as an ensemble, constitute the concept of this "spirit".

Note, however, that when a series of elements are added together in this fashion to form a configuration, the result – indeed the aim – is a highly individualising concept. Think of each "element" as a dichotomous variable, which can be either present or absent. With two requisite elements, the concept in question represents one of four possible combinations. Three constitutive elements yield eight combinations, four yield sixteen, five yield thirty-two, etc. With a dichotomous variable, the number of possible combinations are given by the formula 2<sup>n</sup>. Thus, if Weber identifies 10 elements as constitutive for his concept of the "spirit" of capitalism, it will represent one out of 1024 logically possible combinations. We can compare it to Alphonse Bertillon's attempt to construct a procedure for identifying criminals: describe eleven measures on the body of the suspect, and you will get a description that is virtually as individualising as the fingerprint.

What sets "historical individuals" apart from the individuality of the fingerprint is that the capacity to individualise is a necessary but not sufficient criterion. The construct formed out of these elements must also be endowed with cultural significance. In the essay, this is achieved by an argument that the "spirit" of capitalism is tantamount to a rational *Lebensführung* adequate for the forms of organisation peculiar to modern capitalism. To relieve possible doubts that Max Weber thinks of "historical individuals" in this combinatorial fashion, as configurations of an array of elements, it suffices to quote the following passage from another of his works: "Religions cannot ... simply be inserted into a chain of types, each constituting a new "stage" in relation to the others. Rather, they are all historical individuals of a very complex kind, and the sum total of existing religions only exhaust a fraction of those possible combinations, which could imaginably be formed from the relevant factors. Thus, the following exposition is in no way conceived as a *systematic* "typology" over religions». (15)

That is to say: each religion must be perceived as a historical individual, composed of a series of individual elements. But as noted above, it suffices that we assemble ten element, or presence/absence-conditions, to get a sum total of over a thousand logically possible combinations. Even with this very modest number of elements,

there simply are not enough religions to populate each combination. This is the reason why Max Weber would never aspire to a systematic typology over the world religions.

Yet Max Weber's configurational thinking is not confined to the construction of the explanandum. It is also at the heart of his explanation, which is - to use Charles Ragin's terminology – a specimen of conjunctural and multiple causation. This feature makes it clear why the problem of generalisation is already contained in Weber's quest to understand and explain unique events. As we will see, there is also reason to believe that the same feature accounts for some of the difficulties which his contemporaries, and modern commentators, have had in interpreting his argument. To bring these aspects out, we must first introduce some of Charles Ragin's terminology and notation. "Multiple causation", in Ragin's terminology, is when there are several causal paths to the same outcome. "Conjunctural causation", on the other hand, is when a particular condition A is not sufficient to produce the outcome Y, but will produce it if it appears in conjunction with B. What Ragin has done is to use Boolean algebra, truth tables, and truth functions to create a way of representing and investigating multiple and conjunctural causation. In Ragin's notation, the presence of a condition is written in capital letters, e.g. "A", while the absence of that condition is represented as "a". This way of writing corresponds to the ones and zeros of Boolean algebra. The logical "AND" is written the same way as multiplication in standard mathematics, while the logical "OR" is written as addition. Thus, the equation "Y=A+B" tells us that the outcome Y will result if condition A is present or if condition B is present. This is multiple causation: there are more than one causal path to the same outcome. The equation "Y = A \* B" - or "Y = AB" for short - tells us that Y will happen if and only if conditions A and B are simultaneously present. That is to say, the causal relation is conjunctural.

Charles Ragin's presence/absence-conditions should have a familiar ring. They correspond to the "elements" that make up "historical individuals" in Max Weber's terminology. The key difference is that Ragin is concerned here with the explanans, Weber with the explanandum. But the effect of adding more "conditions" to the explanatory model is the same as that of adding more "elements" to the historical individual: for each added condition, the number of logically possible combinations doubles. Ragin's technical achievement is that of implementing a set of algorithms that allows us to summarise and minimise boolean equations in such a way that the researcher can determine which combination of conditions are responsible for a particular effect. In this context, however, I would rather like to emphasise how his contribution adds to the language of theory and methodology. Using his notation, we get the following interpretation of the much more familiar notions of "necessary" and "sufficient" conditions.

		C is necessary	
		Yes	$N_{0}$
		Y = C	Y = C + B
C is sufficient	Yes		
	No	Y = Ca + CB	Y = aC + AB

The first cell in the property space portrays a situation where the presence of condition C is both necessary and sufficient for the outcome Y. The second cell describes C as a sufficient condition. This is a case of simple multiple causation: the outcome Y results if C is present, but it can also come about in other ways. In the third cell, the presence of C is required if Y is to result, but it will not yield this result unless it is combined either with the absence of A or with the presence of B. Scholars in Weber's day knew very well how to conceive of causes in terms of conditions that are "necessary and sufficient", "sufficient", or "necessary". But what about the fourth cell? The condition C is not necessary, for there is a causal path which does not contain this condition, and it is not sufficient, for it will not produce the outcome unless it is combined with the absence of condition A. Yet it is clear from Ragin's exposition that the condition C should be seen as causally important for the outcome Y in this case as well. It may be that the path containing condition C is particularly important, and that C is of particular importance for this path. It is an explanation of exactly this type which Max Weber had in mind in *The* Protestant Ethic and the "Spirit" of Capitalism. In Charles Ragin's terms, it is an explanation which posits a multiple and conjunctural causal bond between the explanandum and a set of conditions.

This terminology was not available in Max Weber's day. No wonder, then, that his contemporary and latter-day critics have been consternated. What was Weber actually saying? Did he think that puritanism was a necessary condition for the rise of capitalism? In that case he could easily be rebutted. One need only find instances of capitalism before, or otherwise unrelated to, the puritans. Or did he think that the puritan sects were somehow sufficient conditions for capitalism? That claim could also be shown false, this time by pointing to cases where we have a lot of puritianism but no capitalism. And the task of refuting Weber would, of course, be all the more facile if he was arguing that puritanism was both a necessary and a sufficient condition for capitalism. There was no category and no name for the kind of argument Weber was pursuing, and it was consequently difficult for his critics to

assess the causal claims involved. Indeed, want of terminology created difficulties for Max Weber himself. This is evident from Weber's frustrated replies to his critics: «Furthermore, I described as "foolish" the attempt to trace the derivation not only of the capitalist *system* but specifically also of the capitalist "*spirit*" (in my sense of word, be it noted – a matter to which I shall return) back to the Reformation *alone*. Additionally, I explicitly asserted that it was obvious that those religious and psychological conditions could only bring about the development of capitalism in conjunction with numerous other "conditions," especially those of nature and geography». (16)

The first sentence makes it clear that we are dealing with multiple causation, the second that we are dealing with conjunctural causation. Throughout the reply, which is addressed to Felix Rachfahl, Weber complains that he had pointed out these caveats already in his essay, and accuses his opponent of deliberately misconstruing his argument. His reaction is more than a bit high-strung. A more plausible explanation for the lack of communication is that Rachfahl and other critics tried to make sense out of Weber's argument by fitting it into recognisable explanatory categories.

When Max Weber declared that he did not take puritanism to be a necessary or sufficient condition for the rise of capitalism, and denied that he saw the first as the sole cause of the latter, his critics perceived him to be retreating. That insinuation made Weber even more furious, which is why his replies are filled with quotations from and references to the original essay. But what should the critics think? From their horizon, it surely looked like Max Weber was stepping back from a position they had shown to be untenable, to embrace instead a vague claim that puritanism can have some sort of undefined link to the rise of capitalism, which was perhaps not as important as he had first claimed. Unless you have embraced the idea that multiple and conjunctural causation can also be a specimen of causation, Weber's replies will only appear as desperate scolastic manœuvres to avoid the critic *cum* bird of prey.

To be sure, Max Weber's polemic with his critics contains many other elements – a long list of invectives, squibbles over terminology, and disputes over facts. Nevertheless, I do think that the configurational nature of explanandum and explanans is one of the main reasons for the breakdown in communication between Max Weber and his critics. The methodological structure of *The Protestant Ethic and the "Spirit" of Capitalism* is in fact even more complicated than I have been able to show in these few pages. Even if the historical individual Max Weber construes from the "spirit" of capitalism is ultimately the explanandum, his essay does not deal with it in its entirety:

"The task which I set myself was to reveal *one* (particularly important) series of causes which determined the formation of *one* (again, particularly important) constituent component of the spirit of modern capitalism: that is, a variety of this

spirit which differed in specific important ways from that of either the classical period or of the Middle Ages». (17)

The first part of the quote recapitulates Weber's insistance that he had all along recognised several paths to the outcome he is interested in. In the second part of the quote, he states that he does not not claim to have covered all the elements of the historical individual. What he also claims, however, is that the causal path containing the condition he investigates is particularly important, and that it is a particularly important part of that configuration. Moreover, he holds that the portion of the historical individual he is investigating is one of its particularly important elements. He regards the attitudes he has investigated as a synecdoche for the complex historical individual of the "spirit" of capitalism, and he does so precisely because they are 'adequate' to those forms of organisation which are peculiar to modern capitalism and set it apart from its predecessors.

A full assessment of Weber's argument would have to relate what we have just said to his use of adequate cause theory. That inquiry will have to be postponed to some other occasion. Instead, we should return to the question why Max Weber's preoccupation with explaining unique events also entails the task of developing generalisations. Let us, for the sake of simplicity, say that Weber's image of the rise of modern capitalism has the form "Y = aC + AB", where C stands for the specific Lebensführung described in The Protestant Ethic and the "Spirit" of Capitalism. The equation points the way to other inquiries. First, it presents Weber with the task of investigating the second causal path. Second, it requires him to make additional inquiries to ascertain that the causal conditions of the first path does not pertain to a great amount of cases without producing the outcome. Third, Weber is obliged to investigate just how individualised is the explanandum. The equation creates a perfectly general reference class. Thus, even if the explanandum is designed to be radically individualised, and even if the explanation is derived from and tailored for one particular case, the suggested explanation is general in scope and it has to be checked against comparative data. The Gesammelte Aufsätze zur Religionssoziologie, in which the essay on the protestant ethic is also inserted, is an attempt to do just that. This description is, admittedly, artificially simplified, for what Weber also does throughout these essays is to specify the scope conditions for his thesis. But this is all the more in line with our general argument.

#### 4. Conclusion

This article is an attempt addressed Max Weber's relevance for modern social science. In the empirical part, I have tried to charter to what extent modern sociology makes use of weberian concepts. The results show that Weber figures prominently in mainstream sociological discourse. It is another matter, however,

whether this continued influence is justified. The second part of the article argues that there is one particular area where closer inspection of Max Weber's work would benefit both mainstream sociology and the specialist literature on Weber, and where cross-fertilisation between these literatures promise to yield interesting results, namely configurations. Recent developments in sociological methodology has revitalised a concern for combinatorial thinking that was central to Max Weber. And as a result of these modern efforts we are in a better position to grasp what Weber was trying to do, why he sometimes failed to be understood, and what other explanatory tasks his configurational thinking imposed on him. I have used Weber's essay on the protestant ethic and the "spirit" of capitalism as an illustration, but the list of interesting applications can easily be extended. The often quoted concept "ideal type" – a construct that is combinatorial by design – is one obvious example where some Ragin-therapy could contribute to clarification and novel insights.

Nor do the benefits flow one way only, from mainstream sociology to the specialist literature. Max Weber's works gain new relevance once we recognise him as a precursor to these modern methodological developments. His works are waiting to be plundered and used as vast granaries full of neatly packed empirical grain. Moreover, it would be worthwhile to see if his theoretical vocabulary, which was shaped by a concern for preserving a configurational view of cases, contains useful elements which the modern literature has overlooked. Insofar as the construction of the explanandum is concerned, Weber's conception of "historical individuals" still stand out as an original contribution to complexity-oriented social science. Now, constructing historical individuals is one way of arriving at an ideal type. Other principles are involved in the construction of genetic ideal types, and they too should be of interest to those who are engaged in qualitative comparative analysis. In conclusion, then, Max Weber should not be guoted and used because he is a classic. He should be used wherever and whenever his ideas and concepts aid the formulation and solution of concrete research problems, otherwise not. On the other hand, important aspects of his work are still awaiting treatment, and precisely these aspects appear to be important from the point of view of modern social science.

#### References

Agevall, O. (1999) A Science of Unique Events: Max Weber's Methodology of the Cultural Sciences, Uppsala: Uppsala University.

Baehr, P. (2001) "The 'Iron Cage' and the 'Shell as Hard as Steel': Parsons, Weber, and the stahlhartes Gehäuse Metaphor in *The Protestant Ethic and the Spirit of Capitalism*", *History and Theory* 40: 153-69.

Baehr, P. (2002) "Note on the translation", in: Max Weber, *The Protestant Ethic and the "Spirit" of Capitalism and Other Writings*.

Gerhardt, U. (2001) *Idealtypus: Zur methodischen Begründung der modernen Soziologie*, Frankfurt a.M.: Suhrkamp.

Ragin, C. (1987) The Comparative Method: Moving Beyond Qualitative and Quantitative Strategies, Berkeley: University of California Press.

Swedberg, R, with the assistance of O. Agevall (2005) *The Max Weber Dictionary: Key Words and Central Concepts*, Stanford, CA: Stanford University Press.

Weber, M. (1970 [1917]) 'Politics as a Vocation', in: *From Max Weber*, edited by H.H. Gerth and C.W. Mills, London: Routledge.

Weber, M. (1989 [1920]) Die Wirtschaftsethik der Weltreligionen, MWG I/19, Tübingen: J.C.B. Mohr.

Weber, M. (2002 [1905]) *The Protestant Ethic and the "Spirit" of Capitalism and Other Writings*, edited and translated by Peter Baehr and Gordon Wells, New York: Penguin.

#### Notes

- (1) Ola Agevall is post-doc fellow at Växjö University. He is the author of A Science of Unique Events: Max Weber's Methodology of the Cultural Sciences (1999), and collaborator in Richard Swedberg's The Max Weber Dictionary: Key Words and Central Concepts (2005). The author thanks Katarina Friberg for helpful comments on early versions of this article. The study is funded by a grant from the Swedish Research Council.
- (2) Max Weber (1970 [1917]) 'Politics as a Vocation', in: From Max Weber, p.129.
- (3) The sociology section of JSTOR currently contains the following journals: The Academy of Management Journal, The Journal of the Academy of Management, The Academy of Management Review, Administrative Science Quarterly, The American Journal of Sociology, American Sociological Review, Annual Review of Sociology, The British Journal of Sociology, Comparative Studies in Society and History, Contemporary Sociology, European Sociological Review, Family Relations, The Family Coordinator, The Family Life Coordinator, The Coordinator, Gender and Society, Industrial and Labor Relations Review, Journal of Black Studies, Journal of Health and Social Behavior, Journal of Health and Human Behavior, The Journal of Human Resources, Journal of Marriage and the Family, Marriage

- and Family Living, Living, The Journal of Modern African Studies, Journal of Palestine Studies, Middle East Report, MERIP Middle East Report, MERIP Reports, Political Behavior, The Public Opinion Quarterly, Social Forces, Journal of Social Forces, Social Psychology Quarterly, Social Psychology, Sociological Psychology, Sociological Theory, Sociology of Education, Journal of Educational Sociology, Theory and Society
- (4) The search has been limited to articles; no review essays or other items have been included. Since Weber is a too common name to allow precise measurement, I have used the search string ["Max Weber" OR "Weber, Max"]. Considering that this is a more restrictive function, the figures for Max Weber may well be underestimated, as compared to the other authors, where only one term was employed in the search.
- (5) Included in the search are such variations as "ideal typic", "ideal-type", and "ideal typical". The formulation "pure type" has not been included in the search.
- (6) The number of articles in sociological journals archived by JSTOR roughly fits a logistic curve, doubling every ten years. There is one slight deviation, for the total number of articles in JSTOR declines somewhat from the 1980s.
- (7) In this respect, too, the figures confirm what we would expect on other grounds. We know, for example, that Auguste Comte and Émile Durkheim used the term and that "types" of various orders were in vogue in social scientific parlance in the late 18<sup>th</sup> and early 19<sup>th</sup> centuries. For a lengthier discussion, see Ola Agevall (1999) A Science of Unique Events: Max Weber's Methodology of the Cultural Sciences, pp. 166ff.
- (8) These facts should also serve as a corrective to Uta Gerhardt's assertions in her book on the ideal type: "Die soziologische Theorie, die heute Max Weber einen ihrer zwei unbestrittenen Klassiker nennt, verwendet keine Idealtypen. Nicht einmal interpretierende ,Weberian Sociology', die Webers Denken nachkonstruiert, den Primat idealtypischer Verstehens. Zwar heute idealtypische Analysen. Doch dateninterpretation ist eher ein Außenseiter im Methodenwettbewerb empirischer Gesellschaftsanalysen." Uta Gerhardt (2001) Idealtypus: Zur methodischen Begründung der modernen Soziologie, p.11. It may well be the case that modern sociologists are guilty of clumsy and erroneous interpretations of Weber's concept. Yet in purely empirical terms, the concept does enjoy a fair and stable popularity in the sociological community.
- (9) Cf. Peter Baehr (2001) "The 'Iron Cage' and the 'Shell as Hard as Steel': Parsons, Weber, and the stahlhartes Gehäuse Metaphor in *The Protestant Ethic and the Spirit of Capitalism*", *History and theory* 40: 153-69.
- (10) Peter Baehr (2002) "Note on the translation", in: Max Weber (2002) The Protestant Ethic and the "Spirit" of Capitalism and Other Writings, p.lxx.

- (11) Richard Swedberg, with the assistance of Ola Agevall (2005) *The Max Weber Dictionary: Key Words and Central Concepts*, pp.119-20.
- (12) Cf. Charles Ragin (1989) The Comparative Method: Moving Beyond Qualitative and Quantitative Strategies; Charles Ragin (2000) Fuzzy-Set Social Science.
- (13) Günther Roth (1978) "Introduction", in: Max Weber, *Economy and Society*, p.XXXVII.
- (14) Max Weber (2002 [1905]) The Protestant Ethic and the "Spirit" of Capitalism and Other Writings, pp.8-9.
- (15) Max Weber (1989 [1920]) Die Wirtschaftsethik der Weltreligionen, MWG I/19, p.116.
- (16) Max Weber (2002 [1905]) The Protestant Ethic and the "Spirit" of Capitalism and Other Writings, p.285.
- (17) Max Weber (2002 [1905]) The Protestant Ethic and the "Spirit" of Capitalism and Other Writings, p.284.