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## The Structure of Stratification Theory

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### Abstract

This paper offers a concise statement of the theory of societal hierarchies known as stratification, a theory that, with proper data can describe the stratification system of any society at any given point in time. The theory provides each of the 21 (necessary and sufficient) parameters required for such a description. It begins with a brief review of the evolution of the theory from Ibn Khaldun (1377) to today.

### Keywords

Empirical theory, stratification, society, parameters, Ibn Khaldun, 20th Century theorists

## **Introduction**

One of the aims of scientific theory-building is to reduce the apparent complexity of the phenomena under study to the fewest possible concepts. This has been the case ever since the early Greeks invented the concept of the atom, if not before. It is as true in the sociological sciences today, although it may not always be recognized by researchers in these fields.

A theory is a set of interrelated concepts purporting to explain the varying states of a phenomenon. It or parts of it are tested by means of verifiable measurements taken on the phenomenon. These are guided by a measurement strategy applied to appropriate operational definitions of the variables.

The theory of stratification and its operational definitions are presented in Haller (2009). The present paper presents a concise statement of the theory. It specifies each of the conceptual variables underlying the procedures by which to measure the *content* and *structural dimensions* of any society's stratification system when proper scales for them have been constructed according to methods given in the 2009 paper. Taken together, these two dimensions are both *necessary* and *sufficient* to describe any society's stratification system at any point in time. A complete description of a given stratification system requires measurements of each one of 21 different parameters. But before proceeding to them, let us sketch the history of the theory itself.

### **Stratification theory from 1377 to 2000**

As pointed out in the paper referred to above, the theory of stratification has had a long and often interrupted history. A theory of the hierarchical distribution of power in a society was first stated in skeletal form in Ibn Khaldun's (1377) master work. He used it as the key to sociology, a field he invented centuries before Comte, who is often thought—erroneously—to be the originator of the field of sociology. Sociology in turn was for Khaldun the theory of history. To him, stratification systems consist of the absolute power of rulers (with the support of followers), whose incumbents are constantly changing, as those who are in power are overthrown and replaced by others in an endless cyclical process. But the structure of power itself remains unchanged. In other words, the distribution of power is unchanging despite the changes of incumbents.

Despite quite a few hints that such a theory might be waiting to be restated (e.g., Marx 1967; Mosca 1916), the first credible statement after Ibn Khaldun was that of Max Weber (Gerth and Mills 1946:180-195; Parsons 1947:152-159, 324-429).

Weber made two essential contributions. One is his three types of 'power holders' (our term): political parties, economic classes, and status groups. The other is his distinction between authority and absolute power. Like Ibn Khaldun, he calls attention to the mechanism by which power is obtained and maintained by its holders is the support of followers. (Ibn Khaldun, however, noted that as the support of followers collapsed, rulers would attempt to maintain their positions by the arbitrary use of the military force—a process Weber may not have considered.) Beyond this, Weber implies that authority is almost always the type of power that is actually employed, which means that its exercise is bounded by sanctions under girding the rights and duties attendant to it, both those of the actor who employs it and the actors affected by it.

Sorokin (1927), perhaps coincidentally, turned Weber's power holders into three kinds of what he called stratification: political stratification, economic stratification and occupational stratification.

He also provided concepts he intended as descriptors of the forms each could exhibit. These were height and profile.

Several decades later Svalastoga (1965) substituted the word ‘status’ for Sorokin’s word ‘stratification’, repeated Sorokin’s three forms of stratification, and added informational status. He also tried to improve on Sorokin’s height and profile by means of his concept of ‘parameters’, but without much success. His addition of inter-correlations of the four content dimensions as a characteristic of stratification systems (called crystallization today) was an important contribution to the theory.

Then, just a few years later, Duncan (1968) took up Svalastoga’s four types of status, which he seems to have approved of, even while dividing two of them into more specific types. He also cleared up Svalastoga’s attempts to conceptualize the ways the systems could vary. Like the latter, he used the word ‘status’ in place of Sorokin’s ‘stratification’. Unfortunately he may also have added confusion because of the unusual terms he used for two of the three ways he said that the types of statuses could vary: inequality, rigidity of inequality, and rigidity of stratification.

Two years later my (1970) paper introduced the concepts of *content* and *structural* dimensions of stratification. The advantage of these two concepts is that they make clear, for the first time, that the variables measuring the structural dimensions are attributes of each of the four content dimensions. [The distinction between content and structural dimensions was not new. The need for it had first arisen in a study of ordinary peoples’ views of social classes (Haller 1951).] The first set, content dimensions, consists of the four societal hierarchies sociologists call ‘stratification’. It is the same as Svalastoga’s four status variables. The second consists of the ways such hierarchies, of which there are six—the same ones for each of the four content dimensions—describe how the values of the content dimensions may vary from society to society and time to time. The concept of structural dimensions rationalizes and expands Duncan’s forms of inequality, Svalastoga’s parameters, and Sorokin’s height and profile.

As implied, in my article I accepted the four kinds of ‘status’ hierarchies, maintaining as they do the continuities in the content dimensions of Weber, Sorokin, Svalastoga and Duncan. In addition I called attention to several statistical concepts by which to measure the structural dimensions of stratification systems. These, in current terms, are central tendency, variability, heritability (offspring-from-parent status continuity), crystallization (inter-correlations of each of the four content dimensions), mode structure (the number of modes, the gaps between them, and numbers of people in each), and asymmetry (a form of inequality describing the skew of the distribution). In turn, valid and reliable measures of these six dimensions are the variables needed to describe the states and changes of the content dimensions of any society’s system of stratification. The four content dimensions and six structural dimensions are necessary and sufficient to describe any complex society’s system at any point in time, as well as the simpler structure of some tribal societies.

With only one small but significant change, that’s the way the theory stood all through the rest of the 20<sup>th</sup> Century and on into the 21<sup>st</sup>. The only important change is that Weber was right to see the key dimension is power (Haller 2000). No matter which words were used by a given theorist, the substance of stratification turns out to be power differentials. This is true for Sorokin’s kinds of ‘stratification’ and Svalastoga’s, Duncan’s and my (1970) term ‘status’.

### **Content and structural dimensions**

The content and structural dimensions are presented in Panel 1.

Panel 1.

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*Content and Structural Dimensions*

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*Content Dimensions*

P: Political Power                      E: Economic Power  
S: Social Power                        I: Informational Power

*Structural Dimensions*

t: Central Tendency                  v: Variability                      h: Heritability  
m: Mode Structure                    a: Asymmetry                      c: Crystallization

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**Content dimensions**

Presented in Panels 2 and 3, these are the conceptual forms of the four content dimensions of power as these have been identified by past theorists, from Weber, Sorokin, Svalastoga, and (equivocally) by Duncan. The four are both *necessary* and *sufficient* to cover any society's stratification system. They are *necessary* because measures of all of them are needed to describe the stratification systems of complex societies, although for the simplest of societies just one or maybe a composite of two or more may be all that are required. They are *sufficient* because no others are even imaginable.

Thus they stand for and fulfill Weber's types of power holders; parties, classes and status groups; Sorokin's political, economic, and occupational stratification variables; and Svalastoga's and others' political, economic, social and informational status variables.

**Structural dimensions**

Structural dimensions are the conceptual forms of the ways the stratification system of a society may vary from time to time or those of different societies may vary from one to another. With one minor exception, they are forms of the basic descriptors that have been standard in the field of mathematical statistics for a century or so. (The 'exception' is heritability, the offspring-from-parent correlation. Even this one fits well into standard statistical analyses.) As with the content dimensions, the structural dimensions are also both *necessary* and *sufficient*. They are *necessary* in that measures of them provide a complete description of a society's stratification system at a given time. They are *sufficient* in that there are no other basic statistical measures by which a society's stratification system could be measured. Thus they fulfill and supplant Sorokin's height and profile; Svalastoga's 'parameters': degree of inequality, intercorrelations, permeability, and mobility; and Duncan's degree of inequality, rigidity of inequality, and rigidity of stratification.

**The combination of content and structural dimensions**

This is presented in Panel 2, as follows. The measurement of these describes a society's stratification system. As Panel 2 illustrates, there are 21 stratification dimensions in all—four of content and five of structure, six including crystallization'  $([4 \times 5] + 1)$ .

Panel 2.

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<i>Content Dimensions</i>				
<i>Structural Dimensions</i>	P	E	S	I
t	Pt	Et	St	It
v	Pv	Ev	Sv	Iv
h	Ph	Eh	Sh	Ih
m	Pm	Em	Sm	Im
a	Pa	Ea	Sa	Ia
c	(P x E x S x I)			

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Panel 3 shows the 4 x 4 correlation matrix by which the degree of crystallization is measured.

Panel 3.

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<i>Crystallization (P x E x S x I)</i>				
	P	E	S	I
P	---	$r_{pe}$	$r_{ps}$	$r_{pi}$
E	---	---	$r_{es}$	$r_{ei}$
S	---	---	---	$r_{si}$
I	---	---	---	---

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## **Operational definitions**

These are the measurement devices, or ‘real-world’ variables, by which the concepts are manifested. They measure the states and changes of a person’s legitimate political influence, economic power, social power and informational power. Ways to measure each of them are provided in Haller (2009).

## **Multiple operational definitions of the same dimension**

It is quite common for at least two different yet appropriate measures of the level of a given content dimension. An obvious case is economic power. Earnings or income are often used. But wealth is at least equally appropriate. There are several available for social power. Prestige scores (Treiman 1967) is one. Occupational socioeconomic status scales (e.g., Featherman and Hauser 1978) are also in common use, and intra-organizational authority has also been invoked (Pastore, et al. 1975). Another instance is informational power. The usual measure is years of formal education. But experience may be equally valid (e. g. Neves 2005).

The question is what is to be done when more than one variable is appropriate for a given content dimension. The solution is simple if, say, two or three are very highly correlated with each other: one may stand for all. And it’s not too complicated if their correlations are somewhat lower: use the variance shared by them. But if the correlations are low there is no alternative but to use all of them.

## **Summary and conclusions**

This paper is an attempt to lay out the structure underlying the theory of stratification by power. It holds that there are 21 necessary and sufficient conceptual variables by which, with proper instruments, to measure the four content dimensions and the six structural dimensions. It is important to note that the description of a stratification system (a *macro*-level phenomenon) is constructed from data on individuals (*micro*-level phenomena.)

It is through the operational measurement devices, that the states and variations of the conceptual dimensions are seen in the real world. But in actual empirical research are they really seen for what they are? Or may they be imperfect representations? That question hinges on the degree to which each measuring device is a valid and reliable representation of the conceptual variable for which it stands. If it lacks a degree of validity or reliability, or both, it will yield faulty results when measuring its relationship to other variables, as in attempts to test a theory or to try to determine how a societal system works.

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## Correction

The article, as originally published, contained some typographical and bibliographical errors. The bibliographical errors are as follows:

'Lenski, Gerhardt. (1967). *Power and Privilege: A Theory of Social Stratification*. New York: McGraw-Hill.'

should have read

'Lenski, Gerhardt. (1966). *Power and Privilege: A Theory of Social Stratification*. New York: McGraw-Hill.';

'Lenski, Gerhardt. (1984). "Income Stratification In The United States: Toward A Revised Model Of The System." *Research in Social Stratification and Mobility* 3: 173-205.' should not have been included; and

'Sharp, Emmitt F., and Charles E Ramsey. (1963) "Criteria of Item Selection in Level of Living Scales." *Rural Sociology* 28: Pp. 146-164.' should instead have been

'Ramsey, Charles E and Robert J. Smith. (1960). "Japanese and American Perceptions of Occupations." *American Journal of Sociology* 65: Pp. 475-482.'

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