

OCCUPATIONAL SITUS DIFFERENCE IN IDEATIONAL SKILL

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THEORY Davis and Moore's functional theory of stratification is now the dominant interpretation of social inequality. They believe that certain occupations are rewarded more than others in order to motivate people to choose demanding and unpleasant, but socially important jobs. We will use the term situs categories for "groups of occupations covering theoretically equal status ranges, classed in terms of primary work function." (Morris & Murphy 1961) Our question is: Can the Davis-Moore functional theory of occupational stratification be applied to functional types of work?

. Although theoretically equal in prestige, there is persuasive evidence that situs categories are not equally valued. A sample of college students compared pairs of Morris & Murphy situs categories, and indicated which was "most necessary and important for society", or whether they were "about the same in importance." In only 7 of the 45 comparisons did at least 50 percent of the respondents mark the situses as equal in importance. These findings "cast some doubt on the empirical validity of the assumption that occupational situs categories are .. perceived as the same in functional importance." (Pavalko 1971 147) This prestige inequality implies that all types of work are neither equally important nor equally agreeable, and that workers and employees are not equally talented. Some types of work are more essential; some require much more talent and training. Societies must therefore entice capable people into essential types of work by rewarding them unequally. Status inequality of situses suggests a functional theory of stratification at the analytical level of functional types of work.

. The existence of status differences suggests similar differences in the skill requirement of work. To reward some situses more is required because some essential

types of work demand greater physical and ideational skills for successful performance of occupational work roles. This is evident in the strong correlation between occupational prestige and educational and vocational preparation.

. Do some types of work require a greater degree of ideational skill of job incumbents for successful performance of work roles? Do some types of work require smarter workers? If situs categories differ in ideational trait requirements, this would support a functional theory of situs stratification.

METHOD A sample of occupations was taken from the Dictionary of Occupational Titles, and classed according to situs or functional type of work, and the amount of intelligence, verbal and numerical ability "required of an individual in order to learn or perform adequately a task or job duty." (US Dept of Labor 1965 653)

. The Dictionary arranges over 25,000 occupations in 114 worker-trait groups for jobs that are homogeneous "in terms of abilities and traits required of workers." (US Dept of Labor 1968 xi) A single occupation was chosen from each occupational group to maximize independence and cultural variance among the sample of jobs, and to meet the criterion of data availability.

. The Dictionary also indicates the degree of intelligence, verbal, and numerical ability required for average performance of occupational work roles. The amount of aptitude is expressed in terms of equal amounts possessed by strata of the general working population from the top 10 percent, the top third, the middle third, the lower third, and the lowest 10 percent of the population. All measures were collected and developed using job analysis techniques established by the United States Employment Service, and are the result of fully independent onsite

job evaluations conducted by the United States Department of Labor. "In most cases the same job was analyzed in two different establishments in one state and in two different establishments in another state. The findings of these studies were correlated and job definitions prepared. .. Information presented in the Dictionary reflects the findings of the U.S. Employment Service from approximately 75,000 studies of individual job situations." (US Dept of Labor 1968)

. The focus on work content avoids potential bias from the rater's assumption that educational requirements indicate work role requirements. Job studies conducted by the United States Employment Service show that this inference results in a serious bias against nonprofessions and other low status occupations. The present mode of job assessment treats occupational tasks and duties as the units of analysis, rather than vocational training requirements to determine the skill content of work. The adequacy of the Dictionary as a source of data on the skill content of work has been firmly established in the occupational literature (Spenner 1979).

. Much of the data were gathered by personnel from occupational analysis field centers, and by analysts in state employment agencies. Some information was also collected from business organizations, trade associations, and professional societies. If the Dictionary ratings have been determined by professionals, this test will lead to no more than a confirmation of a common professional perspective. However, since only a small fraction of the job ratings involve evaluation of their own profession by professionals, the potential bias is negligible.

. Occupations were classed according to situs by the Morris-Murphy ten-category taxonomy. Detailed descriptions of each occupation from the Dictionary gave clear unambiguous classifications of the sample. Data analysis was limited to 6 situses with 10 or more

occupations: Health & Welfare (14), Finance & Records (10), Manufacturing (17), Transportation (11), Arts & Entertainment (22), Education & Research (19). Omitted situs categories were: Legal Authority, Extraction, Building & Maintenance, and Commerce.

ANALYSIS One way analysis of variance with ideational aptitude versus situs was used to test differences between situs categories in each ideational aptitude. Significant situs differences were:

Intelligence $F_{5,87}=6.4, p=.001$

Verbal skill $F_{5,87}=6.2, p=.001$

Number skill $F_{5,87}=3.4 p=.01$

These findings were explored pairwise with t tests of differences between mean scores of individual situs categories, shown in Table 1. There is substantial correspondence between t test comparisons due to the high covariation among the variables, Intelligence (i), Verbal ability (v), and Numerical ability (n):

$$\underline{r}_{i,v}=.89; \underline{r}_{i,n}=.66; \underline{r}_{v,n}=.65$$

. The marked differences in perceived ideational skill content of work may be due to a third variable. Khoury (1980) has shown that the degree of professionalization is associated with occupational intelligence (i), and verbal (v), and numerical (n) ability. Professionals are superior to semi-professionals and non-professionals in these aptitudes. Moreover, this research reveals significant situs differences in the degree of occupational professionalization:

$$F_{5,87}=2.35, p=.05$$

The 4 elements in occupational professionalization include 1) organization of a professional association; 2) established college or university training schools; 3) adoption of a professional code of ethics; 4) political agitation to gain the support of law for self-regulation (Caplow 1964; Wilensky 1964). Does the relation between functional type of work and ideational skill content of work result

TABLE 1: COMPARISON OF WORK SITUS IN OCCUPATIONAL INTELLIGENCE, & VERBAL, & NUMERICAL ABILITY (Pairwise 1-tail t tests. Variables: i, v, n)

SITUS	* Mean	1	2	3	4	5	
1 Education/Research	i: 4.37 v: 4.32 n: 3.58						
2 Arts/Entertainment	i: 3.95 v: 3.77 n: 2.64	1.87 2.42 3.86					$t_{.05} = 1.70$ $t_{.01} = 2.42$ $t_{.001} = 3.50$
3 Health/Welfare	i: 3.86 v: 3.71 n: 2.93	1.80 1.90 2.21	.35 .19 1.11				
4 Finance/Records	i: 3.40 v: 3.30 n: 3.30	3.35 3.87 .78	1.91 1.70 2.07	1.22 1.03 .96			
5 Manufacturing	i: 3.24 v: 3.06 n: 2.65	4.48 4.57 2.85	2.89 2.60 .04	1.94 1.73 .78	.49 .69 1.50		
6 Transportation	i: 3.09 v: 2.91 n: 2.73	5.30 5.45 2.90	3.50 3.18 .35	2.39 2.05 .66	1.01 1.30 1.51	.51 .44 .22	

solely from the fact that both vary with degree of occupational professionalization, as the true predictor? Separate 2-way analysis of variance of ideational aptitude with situs and professionalization status reveals significant situs differences for intelligence, and verbal and numerical ability:

$$F_{i,5,65} = 5.74, p = .001$$

$$F_{v,5,65} = 6.11, p = .001$$

$$F_{n,5,65} = 3.06, p = .05$$

CONCLUSION The relation between occupational situs and ideational skill content of work is not a function of degree of occupational professionalization. There are meaningful differences between functional types of work in ideational skills required for the job. This is evidence for a functional theory of stratification at the analytical level of functional types of work. Work which requires a greater degree of ideational skill requires greater rewards to attract talented people into these more demanding kinds of work. If confirmed, this hypothesis may prove a valuable corollary to the Davis-Moore theory of social stratification.

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