The lag that exists between traditional measures of masculinity and femininity in occupational interests and the changing role of women in the world of work is discussed. It is stated that most masculinity-femininity scales in use today measure the degree of conformity with socially and culturally determined sex roles. Scales discussed are the Strong Vocational Interest Blank (SVIB), the Kuder Occupational Interest Survey (OIS), the Minnesota Vocational Interest Inventory, and the Kuder Preference Record—Occupational, Form D. What is needed in the way of practice and further research is given as follows: (1) further research on the question of whether separate norms should be developed, for the same occupation, on the basis of sex; (2) newer criterion group data should be developed for all inventories; (3) the term Masculinity/Femininity as applied to psychological scales such as measures of interest should be rejected as an idea whose time has definitely passed; and (4) lack of available data should not be used to limit women's or men's career options. (DB)
THE MASCULINITY-FEMININITY SCALE IN INTEREST MEASUREMENT:
AN IDEA WHOSE TIME HAS PASSED

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It has been said that there are only two occupations in the world of work that cannot be filled by either sex. A woman cannot become a sperm donor, and a man cannot become a wet nurse.

Though their numbers are still far too few, women have been entering such diverse hitherto-male-dominated or male-exclusive occupations as air traffic controller, road construction signalperson, telephone lineperson, shipbuilding apprentice, astronomer, meteorologist, airport attendant, welder, and radio disc jockey. And, in small numbers, men have been entering such hitherto-female-dominated fields—or, at least, female-dominated in American society—as nurse, kindergarten teacher, secretary, and dietician.

The changing interests of men and women are reflected elsewhere too. Dolls for boys have become quite respectable and grace toy shelves almost everywhere—from the lowly five and dime stores to that child's wonderland—F.A.O. Schwartz. Women's pages in newspapers are taking on a new look and directing their appeal to men as well.

as to women, no longer assuming that women are interested only in child care, fashion, and cooking—or that men are not interested in any of these things. Schools are recognizing the importance of home mechanics skills for girls, and many are establishing food and nutrition, homemaking, and "bachelor living" courses for boys. During the recent Democratic convention in Miami, one newspaper carried a headline "Women delegates shun frilly events." Tickets for the teas, luncheons, and fashion shows planned for months ahead had gone begging and had to be placed on public sale. The women delegates were attending meetings, caucusing, campaigning on major issues.

One might question whether interests within a sex group do not vary as much as or perhaps even more than they do between sex groups. Strong (1943) found some evidence of this nearly 30 years ago; surely it is even more true today. However, while women can be found today in all of the occupations listed in the census, there are many occupations where their number is far out of proportion to their interests and aptitudes. We must also ask ourselves to what extent the stereotypic concepts of masculinity and femininity, exemplified by masculinity-femininity (MF) scales in interest measurement as well as in other kinds of psychological measurement, can be held accountable.

It is quite evident that a growing lag exists between traditional measures of masculinity and femininity in occupational interests and the changing role of women in the world of work. Research has generally characterized interest in concrete things and in scientific
and outdoor activities as masculine, while interest in music, literature, art, verbal activities, and humanitarian concerns has been characterized as feminine. Are these differences really intrinsic differences, biologically determined, as some maintain? Or are they, rather, cultural or sociological in origin?

Mead (1963) found personality traits that are considered as masculine or feminine "as lightly linked to sex as are the clothing, the manners, and the form of headdress that a society at a given period assigns to either sex." (p. 279). Among the Arapesh, Mead found both men and women typically content and passive. Among the Mundogumor, on the other hand, both men and women were violent and aggressive in their behavior. Anastasi (1966, p. 454), viewing the two sexes as representative of two subcultures with distinct mores in our society, maintained that sex differences in item performance may be regarded as cultural differences. Similar views have been expressed by others. Super (1957) viewed occupations as organizations of social roles, with vocational development being understood partly in terms of the way in which the individual meets role expectations. A boy is called on to be brave and strong, a girl to be kind and gentle. Tyler (1951) found a girl's role model to be primarily a sex model, while a boy's role model was perceived as beginning as a sex model and developing into a differentiated occupational model.

Roe (1956), with reference to occupations, found the psychological and sociological differences between the sexes far more important
than primary and secondary physical differences. She saw the latter as forming a continuum, with the actual physical fact of maleness or femaleness not necessarily an indication of location at the masculine or the feminine end of the scale.

Studies by Block (1972) at the Institute of Human Development at Berkeley indicated that present American cultural emphasis on masculine machismo and feminine docility "tends to impede the development of mature ego functioning." She found that significant personal costs are paid by both sexes when the socialization of narrowly defined sex-appropriate behaviors is successful. But while for men socialization appears to expand the personal options available, for women socialization means relinquishing as masculine those characteristics that are "essential for individuation and self-expression"—controlling impulse expression and renouncing achievement and autonomy. Socialization, moreover, Block found, tends to mitigate against career interests in women. Among the women who showed a pattern of upward occupational mobility, advance in status was more likely to be achieved by those who diverged from traditional feminine sex role stereotypes.

Closely related to the subject of masculinity-femininity scales per se in the measurement of interests is the use of data gathered separately by sex to construct occupational (or vocational) interest scales for the purpose of guiding young people into appropriate fields of endeavor. Until very recently, occupational interest measures had few scales for women other than those for what
were traditionally considered women's occupations, reflecting interests at the feminine end of the masculinity-femininity scale--for example, elementary school teacher, librarian, office worker, secretary, and nurse.

To what extent do masculinity-femininity scales and the use of separate scales and/or norms for men and women in vocational guidance help perpetuate the guidance of women into traditionally feminine roles and occupations? Most masculinity-femininity scales in use today, because they are based on research data gathered before the present breakthrough in attitudes of and toward women, measure the degree of conformity with socially and culturally determined sex roles.

Although today both the Strong Vocational Interest Blank (SVIB) and the Kuder Occupational Interest Survey (OIS) provide more occupational scales for women than were available less than a decade ago, there are still many occupations for which women receive no scores, or--at best--receive scores on scales developed on male subjects. The Minnesota Vocational Interest Inventory measures the interest of nonprofessional men. Realistically, we must face the fact that, although women can be found in every occupation listed in the census, they are still overwhelmingly concentrated in the traditional female occupations; consequently, there are not enough of them yet in many of the so-called "masculine" occupations to form separate female criterion groups for purposes of interest measurement. But is this necessary, or even desirable? What alter-
Strong himself (1943) raised the question of whether the interests of men and women should be measured with the same blank and on the same scales or whether there should be separate scales and blanks for each sex. He concluded from studies at Minnesota that occupational differentiation on the basis of interests was less effective for women than for men because so many women enter an occupation simply as a stopgap until marriage. But that was in 1943! Surely this is a good deal less true today! Twenty years later, Laime and Zytowski (1964) investigated the question of whether scores for women on the men's form of the SVIB could be predicted from scores on the women's form. For seven scales, letter ratings increased one letter, or five standard score units, from the women's form to the men's. On only one scale was the letter rating lowered. Stanford (1970) found that women college students who completed both the men's and the women's form of the SVIB obtained a significantly greater number of A scores on the men's form.

True, users of the SVIB are advised to use the Men's Blank with women who score toward the masculine end of the MF scale. But how is the meaning of the new scale (MF II or FM II) defined? The FM II scale "is oriented toward intellectual femininity, with stress on art, music, and verbal activities...not on homemaking, children, or domestic concerns." High scores on MF II "belong to those male occupations oriented to the outdoors, adventuresome activities,...."
business... (and are) probably determined as much by a man's dis-
likes as likes, and, on this scale, those dislikes would include
art, music, literature—i.e., feminine and cultural activities"
(Campbell, 1971). Campbell himself has pointed out a major prob-
lem in the SVIB MF scale, which applies to most other MF scales as
well: The exact samples of men and women used are important; they
determine the nature of the scale. A cross-section of women vs. a
cross-section of men presents the problem of the samples not being
equivalent in all respects—for example, employment. Johannsson
(Campbell, 1971) tried to correct for this in his revision of the
MF scale in 1967 by using samples from occupations where SVIB scores
were available for both men and women. But at that time he could
not locate female farmers or forest rangers or male secretaries or
home economics teachers. In addition, most masculine or feminine
items—baseball player, fashion model, etc.—were in only the Men's
or the Women's Blank, not both.

In the Kuder interest inventories there is no MF scale as such, but
experimental M and F scales in the Occupational Interest Survey
(OIS) indicate the correlation between the interests of the individ-
ual and those of each of the two base groups (Kuder, 1971). Both
scales reflect traditional sex-stereotypic interests. The OIS em-
loys the same form for both men and women, but scales are developed
separately by sex, and one sex does not receive scores on all of the
scales, regardless of norms group, unless the sex grid is left blank.
Otherwise, men are scored only on male scales, and women are scored

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on female scales and a selected number of men's scales. Women are instructed to rank scores on men's scales separately from those they've received on scales developed on their own sex, since weights for items popular with men in general might depress scores for women. The important thing, Kuder points out, is the relative order of the scores and the distance between them. The present practice, when inquiries about separate male and female scales are received, is to suggest to the user that the sex grid be left blank, thus providing maximum information to the user and enabling him or her to compare the relative ranks of two sets of scores on same-named scales. For purposes of research, it would be helpful if scores on all scales could be reported without sacrificing sex identification.

Earlier, [Kuder and Hornaday](1961), investigating the efficiency of the Kuder Preference Record—Occupational, Form D (which uses the same items as the later OIS) for both sexes, found that for nine of the ten occupations studied, male keys differentiated as adequately for women as for men. And although there were marked differences between the means and the standard deviations of the general reference groups for the two sexes, the occupational groups of men and women yielded very similar means and standard deviations.

In studies I reported several years ago (Diamond, 1968, 1970), experimental High and Low Occupational Level scales were constructed on the basis of OIS responses for male and female criterion groups combined. In addition, Male and Female experimental scales were constructed by combining data, separately by sex, from both extremes.

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2 Instructions to this effect will be included in the test directions in the next printing.
of the occupational hierarchy. High Occupational Level subjects were more frequently classified correctly on the basis of scores on the High Occupational Level scale than on the basis of sex. The same was not true of Low Occupational Level subjects, a finding attributed to the fact that the occupational structure is far more sharply dichotomized on the basis of sex at the low end of the structure. As more men become secretaries, nurses, and kindergarten teachers, and as more women become mechanics, shipbuilders' apprentices, and construction workers—as each sex is exposed to more and more of the experiences common to the other sex—even the interests of men in general and women in general, but particularly the interests of criterion groups for same-named occupations, should increasingly resemble each other.

What, then, is needed in the way of practice and further research? First, further study is needed on the question of whether separate norms should be developed, for the same occupation, on the basis of sex. Do the items in an occupational or vocational interest scale that differentiate significantly between men and women reflect the essential characteristics of workers in the occupation qua workers in the occupation? Or do they, rather, reflect social role characteristics irrelevant to satisfaction with or success in the occupation?

Second, newer criterion group data should be developed for all inventories. We might well find that the preferences of men, as well as of women, have changed greatly in the last few years, and that men and women have far more interests in common than they did even...
ten years ago.

Third, as Lunneborg (1971) has intimated and others whose concerns I share have suggested, the term Masculinity-Femininity as applied to psychological scales such as measures of interest should be rejected as an idea whose time has definitely passed. Instead, we should use the names of the specific traits such scales represent—aggression, adventuresomeness, nurturing, power, religiosity, and so on.

Fourth—as Cole (1972), who found that present interest inventories show a common structure of women's interests paralleling that found for men, and others have pointed out—lack of available data should not be used to limit women's or men's career options. Both men and women should have available to them as much information as possible about how their interests relate to all possible occupations, regardless of which sex dominates the occupation today.
References


