

The Dilemma of Factitious Demographic Distinctions in Psychological Research

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ABSTRACT

Terms such as *race*, *sex*, and *age* are assumed to reflect biological characteristics and distinctions. In psychological research, these terms are often treated as if they were a reflection of a meaningful set of psychological constructs. A review of articles in 3 prominent journals over a 30-year period reveals that these supposed biological identifiers are not used consistently and lack empirical and conceptual validity. An analysis of those articles shows that, over time, the term *race* has given way to the use of the more general and psychologically relevant term *ethnicity*, *sex* and *gender* have been used interchangeably, and the psychological constructs underlying or supposedly reflected in *age* are seldom discussed. It is proposed that psychosocial researchers and editors adopt a consistent definition of these terms and that research include an effort to identify the underlying concepts that the investigators assume to be reflected in these distinctions whenever these labels are used to report research findings.

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The desirability of ensuring sample representativeness and that of justifying the social importance of the research, coupled with the need to be socially sensitive to cultural diversity, have resulted in the convention of reporting demographic variables in the descriptions of research samples. Recently, the value of reporting demographic information has been underlined by federal guidelines for research proposals, all of which mandate that issues of racial and sexual diversity be addressed, even when the focus of the proposed research has little, if any, ostensible interest in them. The present special section on recruiting and retaining ethnic minorities in psychotherapy research is stimulated by these social, legal, and personal reasons for reporting demographic information. We were concerned, however, that this reporting convention rests on the dubious assumption that demographic characteristics reflect some immutable, underlying, and biologic aspect of the sample that is or will be relevant to understanding the subsequent findings.

Adhering to unsubstantiated assumptions of the immutability of demographic descriptors could work either to further enfranchise or to disenfranchise existing social, economic, and political power structures. Consider the pervasive and insidious problems of ageism, sexism, and racism, through which the advantages of the majority in each of these categories have been maintained. Likewise, consider the current movement to dismantle equal opportunity and affirmative action programs that have been used to identify certain individuals for special consideration in hiring, retention, and benefits. In academic circles, reputations can be made or lost on the basis of findings relative to politically "hot" issues (cf. [Scarr, 1988](#)). Furthermore, there is at least anecdotal evidence to indicate that the intensity of emotions around the topics of age, race, and sex may discourage investigators from carrying out research in areas that may be socially relevant but not "politically correct" ([Graham, 1992](#) ; [Scarr, 1988](#) ; [Sieber & Stanley, 1988](#)), leading to the exclusion of minorities in psychological research.

Perhaps most unfortunate is the possibility that scientists and legislators will ignore or obfuscate findings of demographic differences (or the lack thereof) in the service of sundry social and political programs. In the ostensible interest of being "fair" in the delivery of human services and health care, needs that are unique to certain social groupings may be ignored. Alternatively, treatments may be altered and adapted to different groups based on medically and scientifically irrelevant but politically correct characteristics. In either case, the alteration of scientific objectivity by political agenda may hamper the application of relevant research to developing effective education and treatment programs and to constructing empirically sound social policy.

Relatedly, these agenda also affect publication policy in self-defeating ways. For example, the fourth edition of the *Publication Manual of the American Psychological Association* ([American Psychological Association \[APA\], 1994](#)) rightly argues that "precision is a necessity in scientific writings," (p. 47) and that, when in doubt, a scientist seeking to publish psychological writings that refer to a person or persons should choose words that are accurate and clear. However, the manual's argument that the term *gender*

should be used to describe and analyze samples is at cross purposes with this mandate when this dimension is measured in such scientifically imprecise and conventionally incorrect ways as asking a research participant whether their sex is male or female. In support of the latter position, the editors of the manual present their recommendation with the goal of respecting people's preferences and avoiding offense; in short, precision is sacrificed for reasons of political correctness.

Given current research and reporting mandates, it seemed timely first to set the conceptual limitations of applying demographic labels. Secondly, we document the degree to which these limitations are embodied in current psychotherapy research. To do so, 3 decades of literature in selected journals were reviewed to reveal the degree to which various terms that are assumed to connote a biological quality and for which terms are used to also reflect social, and psychological correlates were selected. Thus, we considered the paired dimensions of race—ethnicity, sex—gender, and age—maturity, as these terms have been used in describing and analyzing research samples. We were particularly interested in the frequency with which articles have (a) reported these demographics, (b) conducted demographic analyses of results, and (c) attempted to relate such dimensions to assumed underlying psychological characteristics. Parenthetically, we do not discuss the use of socioeconomic status (SES) because it does not embody a correlate that is ordinarily ascribed to be biological in nature (see also [Graham, 1992](#)). This exclusion is not meant to obfuscate the fact that it, too, has been used as a factitious psychological trait to explain racial differences on various psychological indices (e.g., [Brown, 1995](#); [Helms, 1992](#)). [Helms \(1992\)](#) accurately pointed out that major conceptual flaws render this demographic both unreliable and invalid as a psychological index.

Conceptual Limitations of Demographic Labels

In debates among competing social goals and the quest for scholarly objectivity, tenable although often irreconcilable positions are presented. The fundamental issue in these debates concerns only in a limited way whether or not demographic distinctions actually exist; rather, the more central and divisive issue is the meaning to be ascribed to the presence or absence of such differences. For example, consider the reported race and sex group differences in mean levels of intelligence or aptitude (cf. [Jensen, 1980](#)) and the more recent outcry within the psychological community attendant on the publication of [Rushton's \(1995\) *Race, Evolution, and Behavior: A Life History Perspective*](#). Some may argue that such research is, *prima facie*, irresponsible, racist, or sexist. However, the debate is at its most heated level with respect to whether or not the findings point to the genetic superiority or inferiority of certain races and sexes (cf. [Helms, 1992](#); [Yee, Fairchild, Weizmann, & Wyatt, 1993](#); [Zuckerman, 1990](#)).

However, no such outcry is observed when differences are noted in performance levels and patterns among different age groups. Such an imbalance in what demographics are tolerated as topics of debate discourages research in areas that are not politically correct. Certainly psychologists should shoulder the burden of social responsibility in the conduct and reporting of research results. At the same time, the presence of negative social and political implications ought not stifle the pursuit or disclosure of knowledge ([Scarr, 1988](#)).

Perhaps of even more significance, methodological reasons exist for changing the current system of reporting demographic qualities. As we illustrate, there is reason to question the validity of the assumption that demographic categories reflect identifiable, stable, and biologic qualities of people. The methods used for identifying these variables in scientific research typically do not meet the basic standards of measurement that we require of other variables in psychological research. Although some scientific bodies (cf. [Yee, 1983](#)) have acknowledged this difficulty and have argued for changing the terms used to psychosocial ones that are amenable to psychological measurement and that discourage stereotyping, the recommended changes have been neither uniformly accepted nor widely applied by scientists.

Race and Ethnicity

Consider that racial, ethnic, and SES group differences with respect to various psychological phenomena are often attributed either to cultural or genetic differences without clear definitions for what is meant by the terms *race*, *ethnicity*, or *culture* (cf. [Betancourt & Lopez, 1993](#); [Casas, 1984](#)). Those who use the term "race" imply that there exists a universal set of psychological qualities that characterize those who are thus classified ([Barrett & Eysenck, 1984](#)). However, reviews of this literature (e.g., [Entwisle & Astone, 1994](#); [Good, 1992](#); [Yzaguirre & Perez, 1995](#); [Zuckerman, 1990](#)) have failed to support this assumption, revealing that the psychological characteristics attributed to racial identification are neither consistent nor specific.

In searching for explanations for the apparent absence of a close relationship between racial identification and concomitant psychosocial characteristics, the viability of the concept of race, itself, is suspect. Operationally, research participants are typically asked to indicate their race or their ethnicity by choosing one of a confusing mix of options that reflect race, ethnicity, and national origin (cf. [Betancourt & Lopez, 1993](#)). [Spickard \(1992\)](#) points out that, historically in the United States, descent, and not phenotype or genotype, was used to distinguish Blacks and Whites. A person socially regarded as descended from African parentage or with any known African ancestry, was viewed as Black, the one drop rule. Similarly, the definition of who is or who is not classifiable as Hispanic has been subjected to political vagaries with interesting and conflicting results. Thus, Cubans qualify for such designation, with concomitant qualification for special affirmative action considerations, whereas Spaniards (the original Hispanics) do not.

Furthermore, racial self-referents are highly variable and arbitrary, varying as a function of history, law, politics, ancestry, physiognomy, and emotions ([Root, 1992](#); [Zuckerman, 1990](#)). Their stability and accuracy depend heavily on how many and what kinds of categories are made available to the respondent ([Good, 1992](#)). In any other domain of science, the meaningfulness of a classification of events would be regarded skeptically if it were dependent on the particular methods chosen to measure it.

Also, unreliable physical characteristics, such as skin color, size and shape of facial features, blood characteristics, and hair type, have been used to identify race ([Jones, 1991](#)). Unfortunately, this practice

presents significant problems for an objective and psychological science because these factors are highly related to the degree of geographic isolation and genetic homogeneity experienced by the population sampled (e.g., [Spickard, 1992](#) ; [Zuckerman, 1990](#)). With a diverse and increasingly merged genetic pool as well as a diversity of "racial" subgroups, fewer and fewer physical traits can be seen as uniquely characterizing any one group in a country of mobile and comingling citizens ([Yzaguirre & Perez, 1995](#)). It has become increasingly difficult to identify with any degree of certainty, either one's race or the factors responsible for differences among racial groups ([Zuckerman, 1990](#)). Consequently, in 1950 (cf. [Yee, 1983](#)), a panel of experts declared the term race to be archaic and recommended that it be replaced with the term ethnicity. This group contended that the latter term was less emotionally laden and biased, was less subject to stereotypic views, and shifted the emphasis from physical characteristics to sociocultural influences and potentialities.

Race as a biological construct is illusory. As a social and psychological construct, however, it is all too real. [Helms \(1994, 1995\)](#) correctly observed that the term has been used as a proxy for referring to differential "sociopolitical and economic socialization," "biogenetic psychological characteristics," and "cultural socialization" (1994, pp. 286—287). Helms further maintained that, although racial groups in the United States may not be biologically distinct, they, nonetheless, can be distinguished on the basis of the conditions of domination and oppression they have and continue to endure. It is not clear, however, if Helms was offering "conditions of domination and oppression" as an operational definition of race. Correcting the excesses of the old definition of race with such an alternative would present its own set of problems. Specifying the pertinent conditions of oppression might also be a significant challenge. Psychological researchers are left with the quandary of defining race as well as the means of its measurement.

Accordingly, ethnicity has frequently been used among social scientists to reflect the psychological characteristics, attitudes, and cultural processes that are assumed to be related to cultural identification. These qualities are expected to be more psychologically relevant, amenable to psychological measurement, and alterable than those associated with biological race.

A shift to use of the term ethnicity may begin to move thinking to a more sociological and psychological conception of race, but this shift does not address the issue of psychological measurement. Unfortunately, ethnicity is characteristically operationalized in psychological research in the same way that race was previously, by asking research participants to indicate in which of the following categories or combination of categories they consider themselves to be members: African American, Asian American, European American, Latino, Native American, or other. Such categorizations do not yield direct psychological indices and they confound race, ethnicity, and nationality ([Betancourt & Lopez, 1993](#)).

Some suggest that the ethnic maturity of a science and society will be reflected in the adoption of terminology that suggests less enduring and biological substrates when referring to member characteristics ([Betancourt & Lopez, 1993](#)). Although there is no certainty that such maturity has developed, recent literature indicates that psychological measures of cultural indices are being developed

and offered to the profession (cf. [Atkinson & Thompson, 1992](#) ; [Leong & Brown, 1995](#)). Clearly, mere alteration of the terminology used will be inadequate unless accompanied by the development of psychological indices. These developments will come to have a significant impact only when psychological discourse encounters and confronts the uncertainty and inaccuracy of using racial labels. An investigation of the nature and progress of these needed developments in psychotherapy research is indicated.

Sex and Gender

The historical use of the term sex in psychological research can be traced to the mid-1800s, at which time psychologists were focused on identifying individual differences that were based on biologically determined characteristics ([Shields, 1975](#)). Because biological differences between men and women were assumed, no explicit theories were invoked to direct research on sex differences. In the mid-1970s, the term "gender" came to be used in linguistics to describe formal norms and rules emanating from masculine or feminine roles ([Unger & Crawford, 1993](#)). Feminist scholars introduced the term as a replacement for "sex" as a means of including roles and social organization as variables of consideration in research on the sexes. They emphasized the social quality of distinctions based on sex and rejected the biological determinism implied in the use of the term "sex" ([Unger, 1979](#)). "Gender," therefore, was a term whose definition was meant to refer to the social, psychological, and cultural features associated with the biological categories of male and female ([Gentile, 1993](#) ; [Gilbert, 1992](#)).

Unfortunately, the openness evoked by the women's movement also provoked a swing of the pendulum to the far side, and there resulted a temporary disregard of biological determinants of behavior and a corresponding attribution of virtually all differences to a history of preferential treatment of men. Partially as a result of these latter pressures and paralleling similar processes in the areas of race and ethnicity, there continues to be a paucity of and general suspicion toward research on differences between men and women (cf. [Scarr, 1988](#)). Contemporary methodologies do not fully consider the roles of biological differences between the sexes within the social context in which they are exhibited ([Gilbert, 1992](#)).

Just as we have observed with respect to the terms "race" and "ethnicity," there continues to be confusion regarding the distinction between sex and gender in contemporary scientific writing. Many social scientists treat the terms as interchangeable, except when discussing sexual acts ([Gentile, 1993](#)). Others see the problem of differentiating between sex and gender as one that stems, not from the specific terms used, but from disagreements concerning the causality of sex-linked phenomena. In addition, some scholars have argued for the exclusive use of the term gender because they believe the term to be more polite and politically correct than sex ([Unger & Crawford, 1993](#) ; see also [APA, 1994, p. 47](#)). This procedure is tantamount to reification and implies that psychological, social, cultural, and biological features of men and women should not or cannot be disentangled (e.g., [Gilbert, 1992](#)).

Given that it is difficult to distinguish between biological and sociocultural factors in the development of

sexual and gender-linked traits and behaviors, the difficulty is compounded by the use of inappropriate terminology ([Unger & Crawford, 1993](#)). Just as in the case of race and ethnicity, however, the battle over what terminology to use stems from concern over what male and female differences connote. [Deaux \(1993\)](#) suggests that "sex" should be used in referring to male and female demographic categories, whereas "gender" should be used when inferences are being made about the nature of maleness and femaleness. These distinctions are not maintained with any consistency within the psychological literature, however. Nowhere is the confusion of biology, social roles, and political concerns that confound these terms better illustrated than in the resolution adopted by the recent Women's Conference, held in China, which asserted the existence of five "genders"—male, female, gay male, lesbian, and bisexual ([Tempest, 1995](#)).

Related to, but independent of, the issue of which terms to use is the question of how sex and gender are to be operationalized. Consistent and correct operationalization of the constructs of sex and gender are logically important for the sake of research. Perhaps more importantly, because of the potential sociopolitical implications that are drawn from research involving sex and gender ([Unger, 1979](#)), it is pertinent to carefully define the constructs to be used in a given study. As psychologists, we are ethically bound to have concern for others' welfare and to aspire to advance human welfare through research and social policy ([APA, 1992](#)). It would be senseless to fail at these ethical responsibilities because of an incorrect usage of words involving the terms sex and gender or to fail to appropriately operationalize them.

Like race and ethnicity, political concerns affect the definition and operationalization by which sex and gender are measured. Unlike race and ethnicity, laws and ancestry do not appear to determine sex and gender. Consequently, self-report may serve as a valid indicator of either sex or gender but only when the respondent is aware of the definitions and distinctions between the terms. Also, unlike race and ethnicity, sex has reliably assessed and specifiable biological and morphological determinants. Thus, physical appearance, in addition to chromosome complement, brain androgenation, and secondary sexual characteristics, determine sex. In contrast, gender identification is less likely to sustain reliability than sex identification, reflecting as it does one's socialization experiences. Notwithstanding, because one's gender as well as one's sex may shape personality, both should be the subject of psychological inquiry. It appears timely to assess to what degree both terms have been the subject of psychotherapy journal articles.

Age and Maturity

Even age does not escape the confusion of definition, being confounded with the often disparate concepts of "mental age," "social maturity," "chronological age" and "developmental age." Certainly among the young and the mature, it is clear that differences in responses to social systems, interventions, and stressors, are less dependent on chronological age than on the more nebulous concept of developmental or maturational level ([Murphy & Longino, 1992](#)). Nonetheless, of the demographic labels conventionally presented, age is the one that is imbued with the least controversy and, correspondingly, with the least conflict. Thus, it may serve as a useful benchmark by which to assess the role of strong

emotion in affecting how demographics are reported. This is not to say that distinctions between chronological age and psychological maturity or subjective age are unimportant, however. The phrase, "you're as old as you feel," may not simply be a piece of common wisdom but something research scientists may not be considering when using age as a biological identifier.

In spite of efforts to document the correlates of increasing chronological age, there are few satisfactory models for describing the relationships between age and aging. For example, medical and physiological studies have described aging as a "disease." However, this metaphor is inexact because it implies that departures from normal or usual functioning are the result of disease. Not all decline of function is a result of pathological processes. There are also normal changes that accrue in the body both with the passage of time and with repeated use. Although the pattern or course of development and decline in most performance domains are relatively consistent, they do not occur at the same rate in real time, affecting different people at different ages.

A developmental model of change accommodates these changes without invoking the notion of pathological process that is inherent to a disease model. For example, sensory and motor skills normally do diminish with time, but the point at which decline begins and its speed differ widely among individuals as a function of a variety of factors that may or not be associated with disease and are only roughly correlated with the passage of time ([Osborne, Noble, & Weyl, 1978](#) ; [Welford, 1992](#)). [Pirow \(1994\)](#) invoked a developmental analogy and described the "six ages of man," each indexed by athletic performance and each of which provide a reference point by which to assess individual variation in the process of normal aging. The result is an index of development or maturation that is not directly related to pathological processes.

Others have also struggled to bridge the gap between the physical and the psychological aspects of aging. [Murphy and Longino \(1992\)](#) emphasized the importance of including a perceptual dimension in considerations of aging. They distinguished between passage of time and one's sense of temporality, pointing out that the expiration of time, artificially measured by clocks and calendars, is an inaccurate indicator of one's perceived aging. To understand an individual's psychological aging, one must have knowledge of how time or temporality is perceived. In the area of geriatric mental health, for example, strong voices have been raised against the concept of chronological age as an explanation for differences either in treatment response or as a criterion for access ([Gallagher-Thompson & Thompson, 1995](#)). In this instance, it is less that the measure of age is unreliable than it is that it is irrelevant and poorly correlated with one's perceived age or with one's physical and mental ability, need, or responsivity.

Several developmental theories, partially predicated on chronological age, have been proposed to account for these complexities. For example, to describe a developmental process extending from infancy into later life, [Freud \(1933\)](#) , [Piaget \(1929\)](#) , and [Erikson \(1959\)](#) have various stages of development through which individuals sequentially acquire the that allow them to become a healthy adult.

Other theorists of life span development (e.g., [Gould, 1978](#) ; [Havighurst, 1953](#) ; [Levinson, Darrow, Klein, Levinson, & McKee, 1978](#) ; [Sheehy, 1976](#)) have described stages of development, including that

of the development of a racial identity (see [Atkinson, Morten, & Sue, 1993](#)). According to these theories, cultural or cohort-bound differences are more indicative than the passage of time of what differentiates an individual from other individuals in society. It is unclear however, if most psychological research is truly addressing such differences when the term age is used to describe an individual.

Historically, the two major goals of developmental research have been to identify and verify the assumption that specifiable psychological stages or phases occur over time ([Neugarten, 1977](#)). [Wohlwill \(1970\)](#) observed that, although the major province of the developmental psychologists has been the investigation of changes in human behavior associated with changes in age, age is not an independent variable that is well suited to study because its effects are only interpretable in relation to other variables that change concurrently with it. In short, it is not a psychologically meaningful construct. Recognizing that chronological age is only one of many possible organizing variables, scholars have long decried the use of age as a means of operationalizing psychological development, calling for the development of alternative procedures ([Baltes & Goulet, 1971](#)). For example, developmental level, or what may be called contextual age, is likely to be a more valid indicator of an individual's psychological state than is a purely year-bound chronological life index, which is implied by the term age ([Rubin & Rubin, 1986](#)).

Indeed, the use of age to define an individual in terms of their psychological make-up when the implication is that chronological age is enough to measure life position, is likely to result in an inaccurate representation of an individual; and does not truly define what biological, social, cultural, psychological, media experiences and aging references that the individual brings to the respective measurements. The terms developmental level and contextual age are more accurate and useful descriptors of human variation, and these terms of distinction are relevant when attempting to describe individual differences. A question remains, however, as to what extent age or variables associated with contextual age are used in psychotherapy research.

A Study of Demographic Identifiers Over Time

The foregoing review illustrates that demographic terms are inaccurate reflections of biological statuses. In the cases of race, sex, and age, alternative concepts and terms have been advocated for the use as means of increasing the specificity of scientific language, for emphasizing the importance of psychosocial and psychobiological qualities, and for improving psychometric adequacy. However, the degree to which these changes have been adopted by scientists for these purposes has not been systematically studied.

To illustrate the concerns raised in the foregoing text, we undertook a survey of all empirical studies reported in three major journals in clinical and counseling psychology: *The Journal of Consulting and Clinical Psychology (JCCP)*, the *Journal of Counseling Psychology (JCP)*, and *Psychotherapy (PSY)*. These journals were surveyed during three time periods, 1970—1973, 1980—1983, and 1990—1993. The independent variables consisted of the identity of the journal and the epoch represented.

All articles that used empirical methods were extracted from these journals $N = 536$ and served as the sample for this study. The total sample was composed of 201 articles from *JCCP*, 167 from *JCP*, and 169 from *PSY*. [Table 1](#) reports the number of articles by journal and epoch.

Data Entry and Coding

Each article was coded for how it reported and used demographic identifiers of participants. For each article reviewed, the following information was recorded: number of participants, number of male and female respondents, number of ethnic respondents (African Americans, Asian Americans, European Americans, Chicanos, Native Americans, Others), and a cross-tabulation of number of respondents by age. Also recorded was the nature of the key demographic terms used and whether the concepts identified by each of those terms were used as independent, dependent, or control variables (viz., covariate, matching, or blocking variable). The demographic variables coded were sex, race, age, gender, ethnicity, and developmental—maturity level. Finally, if psychological measures were used to operationalize gender, ethnicity, or developmental status, those measures were recorded on the data sheet.

Data Analysis

Because the purposes of this analysis were illustrative, we chose to keep the statistical procedures and questions addressed as simple as possible. First, we tabulated and cross-tabulated the use of the following six terms and their derivatives both by journal and by epoch: (a) race, (b) ethnicity, (c) sex, (d) gender, (e) age, and (f) developmental—maturity level. The frequencies reported in [Table 2](#) suggest a consistently low rate of use among all of the terms across journals and across epochs. Frequency data, however, does not capture either the centrality of the demographic variable to the investigation or the accuracy of its use. Thus, rather than analyzing simple frequency information, we computed two scores that served as dependent variables in the subsequent analyses.

The first of the composite scores was designed as an index of centrality. It indicated the degree to which each demographic construct was a specific focus of investigation in each study. This ordinal score ranged from 0 to 3: a score of 0 indicated no mention of the variable. A score of 1 was assigned if the term was used in the study simply to describe research participants, a score of 2 indicated that the terms were used to define control or mediating variables during analysis, and a score of 3 indicated that the term denoted a construct that was used as a dependent or independent variable in the analysis.

The second composite score derived was a measure of accuracy. This measure indicated whether each pair of the target terms (race—ethnicity, sex—gender, age—development) were operationalized appropriately. Terms were scored and analyzed in pairs because the use of the terms in each pair was mutually exclusive; unfortunately, this procedure renders it impossible precisely to disaggregate accuracy data for each of the six terms. However, age and sex were used accurately in virtually all cases. Thus, variations of accuracy ratings on at least these two dimensions reflect inaccuracies in the use of the corresponding terms of maturity and gender. An accurate use of the terms, race, sex, or age was allowed

if designation was based on participant self-reports or clearly referred to assumed biological qualities of participants. Accuracy in the use of the terms ethnicity, gender, and developmental—maturity level, however, required the use of a psychosocial measure to operationalize the terms. If these conditions were not met, we designated the use as inappropriate. Thus, each study received an ordinal score of 0 (*not mentioned*), 1 (*inaccurate*), or 2 (*accurate use*) for each of the three variables.

[Table 3](#) reports the cross-tabulated means and distributions for journals and epochs for both the centrality and accuracy ratings. The preponderance of mean values below 1.0 indicate that both the centrality and accuracy of ratings were low across both journals and epochs. The modal observation was that demographic characteristics were not reported. Nonetheless, a pattern is suggested across both epochs and journals. To test the significance both of journal and epoch effects, we conducted a series of analyses of variance on centrality and accuracy ratings. [Table 4](#) reports the results of a series of 3 (Journal) \times 3 (Epoch) analyses of variance using the Centrality scores as dependent variables. [Table 5](#) reports a similar series of analyses using the measures of accuracy as the dependent variables. A Bonferroni correction was applied to the results reported in [Tables 4](#) and [5](#). A corrected alpha level of .05 was accepted as significant, and a Scheffé comparison was applied to all main effects this adjusted level. ¹A conventional alpha ($p < .05$) was used in these latter analyses.

The most consistent finding arising from the analysis of the centrality of demographic concepts to the research published in the three index journals was that demographic qualities were less central to articles published in *PSY* than was true of the other journals. The centrality of age, as a demographic descriptor, was less central in the *JCCP* than in the other two journals, and the designation of gender was more central in *JCP* than in the other ones.

A general pattern was also noted over time with the temporal period being associated with a general decline in the centrality of sex and an increase in the centrality of gender. Likewise, progressively, through the three temporal epochs, the designation of ethnicity became dominant, although there was not a correspondent decrease in the centrality of race in reported research.

The analyses of the accuracy by which the terms were used revealed a general increase over time in all three domains. However, *PSY* continued to have the lowest ratings of accuracy among the three journal in all three domains whereas *JCP* had the highest accuracy ratings for sex—gender.

Discussion and Recommendations

Although the large body of research that is available in behavioral literature testifies that differences among racial groups, sexual groups, and age groups exist, both in the course of normal development and in the distribution and treatment of pathological states, there is considerable room for disagreement about the nature and implications of these differences. Some of this disagreement seems to have arisen because research has traditionally failed to (a) report demographic differences in research, (b) use demographic terms in clear and definitionally accurate and specific ways, and (c) specify the underlying psychological

constructs that are assumed to be in operation when demographic characteristics are studied in psychological research. The present report represents the first attempt to empirically document each of these failures.

Failure to Report Demographic Qualities

Our analysis of three major counseling and clinical psychology journals revealed relatively few empirical investigations published in those outlets that used demographic terms in even the rudimentary, descriptive manner needed to describe samples and assure representativeness. Even fewer studies undertook an analysis of relationships between demographic variables and the dependent variables of focus in the study. These findings are highly consistent with those of other scholars who have analyzed articles published in other APA journals (e.g., [Graham, 1992](#) ; [Jones, 1983](#) ; [McLoyd & Randolph, 1984](#) , [1985](#) ; see also [Ponterotto, 1988](#)). Although not the most important factor, it is reasonable to question whether psychologists will ever obtain a clear picture of the nature and psychological implications of demographic qualities in the absence of either reports of participant demographics or large numbers of systematic investigations of those distinctions. If the publication trends of the *JCCP*, *JCP*, and *PSY* are representative of research journals in psychology, increased empirical attention to the distinctions might help.

However, merely increasing the frequency of reporting and analyzing demographic data will not, in and of themselves, improve the present state of psychological research. Our data show that, even when demographic distinctions are a subject either of report or analysis, they are seldom the central focus of published studies. Together, one interpretation of these finding is that the distinctions are relatively unimportant to psychological investigators who elect to publish their work in clinical journals. Although possibly true, we doubt that psychologists are ignorant of or resistant to the increasingly high level of consciousness that our society has developed with respect to demographic qualities. That behavioral scientists are conscious of these societal values is reflected in the observation that the centrality of gender and ethnicity in clinical research increased over the three temporal epochs studied. It may be either that psychological investigators are fearful of the possible negative attention that may attend the publication of their work in socially sensitive areas (cf., [Graham, 1992](#) ; [Scarr, 1988](#) ; [Sieber & Stanley, 1988](#)) or that journal editors are slow to publish articles on controversial topics.

Another finding in our survey may shed some light on the lack of attention to demographic qualities; namely, the accuracy of usage rates were especially low among the journals surveyed, with *PSY* showing the lowest levels of both centrality and accuracy of use. These findings suggest that problems of clarity and meaning may be central reasons for the lack of attention to demographic qualities in research.

Lack of Clarity and Specificity in Descriptive Terminology

Perhaps problems in defining and operationalizing demographic concepts account for both the low incidence of reporting these qualities and the paucity of research that directly or centrally investigates demographic concepts in published research. Notwithstanding that causation is impossible to determine

through the present investigation, the pervasive inaccuracy in how these terms have been used in the literature, suggests that confusion in the concepts may retard the study of these concepts.

Definitional specificity has been lacking with respect to virtually all demographic variables—race versus ethnicity, age versus maturity, and sex versus gender—and as a result, there has evolved a set of psychological variables and terms whose use is designed as a way of eliminating the biological bias that, paradoxically, has colored assessments of demographic differences. Remember, for example, that the term sex predominated in the literature until the 1970s and was basically biological in meaning while the term gender was introduced by feminist scholars to emphasize the sociocultural factors involved in the differences between men and women. However, the relative use and specificity of the terms sex and gender in research has changed greatly over time, the present data demonstrating that all of the terms have been and are being used inaccurately. Although it is likely that the intended psychological terms are misused more often than are the biological or chronological terms, future research might identify the exact sources of the inaccuracies.

Because of the inconsistent usage and confusion of terms, the construct validity of various research studies is called into question. If constructs such as sex and gender are incorrectly or insufficiently operationalized, how valid are the results? This would obviously be a problematic situation in which sex or gender is an independent or dependent variable in a study. For example, if a research study addresses differences or relationships between men and women that are shown to be partially sociocultural in nature, the term sex would probably not adequately capture the essence of the construct at hand, in that it only refers to biological factors. Thus, the construct validity of demographic indices is of utmost importance in the field.

Failure to Identify Underlying Constructs

Recognizing the importance of psychological understructures to the biological variables by which demographics have been typically defined, several authors (e.g., [Jones, 1991](#)) have urged abandoning traditional biologically referenced terms in favor of ones that acknowledge both the potential for change and the sociocultural specificity of human behavior. For example, [Yee, \(1983\)](#) suggested abandoning the term race and pointed out that doing so would parallel the decision to eliminate the term instinct among psychologists earlier in this century and to eliminate the term savage by anthropologists. [Zuckerman \(1990\)](#) adopted a similar opinion and maintained that using such loosely defined and inconsistent terms, that are incorrectly assumed to be biological in nature, perpetuates discrimination and racist attitudes. Similar arguments have been offered for the terms sex and age (cf. [Gilbert, 1992](#); [Murphy & Longino, 1992](#)). Although it is true that a shift from biologically referenced terms to those that are sociocultural in nature will eliminate the biological bias that colors the assessment of demographic differences, the unfortunate circumstances surrounding the use of demographic terms cannot be altered by simply changing the use of terminology from sex to gender or from race to ethnicity.

Conceptual clarity calls for more than describing terms with accuracy. The assumptions underlying the demographic labels also require clarification. In most psychosocial research, it is the psychological

understructure of the indices of demographic identity that is of interest, not the questionable and inexact biological or social nature of the variables themselves. For example, in studies of depression in older adults, it is clear that it is not the age of the participants that is of significance but their developmental stage—the life tasks that face them and their perceived ability or lack thereof to cope with them. Likewise, it is not the biological race or sex that is of concern to most psychosocial researchers but the attitudes and dispositions that are associated with sundry social groups, regardless of the degree to which their genesis is owed to genes or socialization.

For the most part, in current research reports, the variables are reported without identifying either the underlying constructs that are assumed to be important or any effort to directly assess these psychological understructures. These failures alone may have perpetuated beliefs that dispositions associated with different social groups are immutable at worst, intractable at best, and unworthy of research attention.

In an attempt to improve the caliber of research being conducted and subsequently published in the journals, we recommend that the following terms and procedures be incorporated into the process of research and in the reporting of results;

- Concepts such as sex, race, and age, as well as their psychosocial counterparts, gender, ethnicity, and maturity, should be considered constructs. As such, their measurement should meet the same standards of measurement and clarity as other constructs used in research. Reports should include descriptions of how these constructs are defined and operationalized, as well as justification for their definition and measurement.
- Use of the term sex should be reserved for instances in which a biological referent is observed and intended. Because the biological referents of race are not reliably indexed, this term should not be used to reference biologic qualities. If genotypic, phenotypic, or social distinctions are either observed or intended, these should be specified. The term age, is an inappropriate biologic reference as it refers simply to the passage of time;
- The terms *gender*, *ethnicity*, and *maturity* (or *development*) should be used whenever the intent is to imply the presence psychosocial (viz., cultural) constructs or qualities. Their operationalization should be consistent with that intent;
- Concerted efforts should be developed to explore the relationship of the reported demographic qualities, both psychobiological and psychosocial, to other independent and dependent variables of research interest. In the presence of findings relating such qualities to the variables of interest, research findings should be qualified accordingly. The nature of the assumed attitudes, cultural—gender values, and identification that are used to define these characteristics should be reported and, whenever feasible, be evaluated as related to the study's objectives and the cause of good science. Another article in this special section by [Alvidrez, Azocar, and Miranda \(1996\)](#) offers some useful suggestions concerning hypothesizing about and measuring ethnic differences;

- These recommendations should be incorporated into the publication standards used by psychological journals.

Until demographic terms are used consistently, specifically, and in ways that reflect a method of measurement, the important relationships that exist between these variables and factors such as primary language, socioeconomic status, and opportunities will not and cannot be adequately addressed. Consequently, without attention to the methodological and conceptual issues described earlier, psychotherapy research cannot help in answering important social questions such as those related to psychological differences, treatment efficacy, diagnostic bias, and service delivery, even if women and minorities of all ages constitute a larger part of the participant pool. Three important questions that might be addressed, were these suggestions heeded include the following: How does one's ethnic, gender, or developmental self-perceptions affect the psychological distresses the person experiences and their responses to different counseling and psychotherapy interventions? How do perceptions of a person's ethnicity, gender, or developmental status affect the quality of the therapeutic relationship, clinical diagnosis, and treatment recommendations? and What is the psychological salience of one's ethnic, gender, and developmental identity with respect to symptomatology and clinical approach?

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1

Because of low cell frequencies, analysis of interaction effects was not considered to be justified.

Table 1.

Journal	No. of articles in epoch			
	1970-1973	1980-1983	1990	1993
<i>Journal of Consulting and Clinical Psychology</i>	83	64	54	
<i>Journal of Counseling Psychology</i>	301	72	65	
<i>Psychotherapy</i>	56	56	57	

Table 2.

Journal	1970-1973	1980-1983	1990	1993
<i>Journal of Consulting and Clinical Psychology</i>	83	64	54	
<i>Journal of Counseling Psychology</i>	301	72	65	
<i>Psychotherapy</i>	56	56	57	

Table 3.

Table 4 Annual and Stock Returns by Country and Market									
Country	1990-1995					1996-2000			
	Mean	Std	Cor	Cor	Cor	Mean	Std	Cor	Cor
USA	15.2	18.5	0.15	0.25	0.35	12.5	15.0	0.10	0.20
UK	12.5	15.0	0.10	0.20	0.30	10.0	12.5	0.05	0.15
Germany	10.0	12.5	0.05	0.15	0.25	8.0	10.5	0.02	0.12
France	11.0	13.5	0.08	0.18	0.28	9.0	11.5	0.03	0.13
Japan	18.0	20.5	0.20	0.30	0.40	15.0	17.5	0.15	0.25
India	25.0	27.5	0.25	0.35	0.45	22.0	24.5	0.20	0.30
China	30.0	32.5	0.30	0.40	0.50	27.0	29.5	0.25	0.35
South Africa	20.0	22.5	0.15	0.25	0.35	17.0	19.5	0.10	0.20
Brazil	15.0	17.5	0.10	0.20	0.30	12.0	14.5	0.05	0.15
Russia	35.0	37.5	0.35	0.45	0.55	32.0	34.5	0.30	0.40

Table 4.

Table 5 Annual and Stock Returns by Country and Market									
Country	1990-1995					1996-2000			
	Mean	Std	Cor	Cor	Cor	Mean	Std	Cor	Cor
USA	15.2	18.5	0.15	0.25	0.35	12.5	15.0	0.10	0.20
UK	12.5	15.0	0.10	0.20	0.30	10.0	12.5	0.05	0.15
Germany	10.0	12.5	0.05	0.15	0.25	8.0	10.5	0.02	0.12
France	11.0	13.5	0.08	0.18	0.28	9.0	11.5	0.03	0.13
Japan	18.0	20.5	0.20	0.30	0.40	15.0	17.5	0.15	0.25
India	25.0	27.5	0.25	0.35	0.45	22.0	24.5	0.20	0.30
China	30.0	32.5	0.30	0.40	0.50	27.0	29.5	0.25	0.35
South Africa	20.0	22.5	0.15	0.25	0.35	17.0	19.5	0.10	0.20
Brazil	15.0	17.5	0.10	0.20	0.30	12.0	14.5	0.05	0.15
Russia	35.0	37.5	0.35	0.45	0.55	32.0	34.5	0.30	0.40

Table 5.

Table 6 Annual and Stock Returns by Country and Market									
Country	1990-1995					1996-2000			
	Mean	Std	Cor	Cor	Cor	Mean	Std	Cor	Cor
USA	15.2	18.5	0.15	0.25	0.35	12.5	15.0	0.10	0.20
UK	12.5	15.0	0.10	0.20	0.30	10.0	12.5	0.05	0.15
Germany	10.0	12.5	0.05	0.15	0.25	8.0	10.5	0.02	0.12
France	11.0	13.5	0.08	0.18	0.28	9.0	11.5	0.03	0.13
Japan	18.0	20.5	0.20	0.30	0.40	15.0	17.5	0.15	0.25
India	25.0	27.5	0.25	0.35	0.45	22.0	24.5	0.20	0.30
China	30.0	32.5	0.30	0.40	0.50	27.0	29.5	0.25	0.35
South Africa	20.0	22.5	0.15	0.25	0.35	17.0	19.5	0.10	0.20
Brazil	15.0	17.5	0.10	0.20	0.30	12.0	14.5	0.05	0.15
Russia	35.0	37.5	0.35	0.45	0.55	32.0	34.5	0.30	0.40

Table 1
Number of Empirical Articles by Epoch and Journal

Journal	No. of articles in epoch		
	1970–1973	1980–1983	1990–1993
<i>Journal of Consulting and Clinical Psychology</i>	83	64	54
<i>Journal of Counseling Psychology</i>	30	72	65
<i>Psychotherapy</i>	56	56	57

Table 2
Frequency of Using Each Demographic Term by Journal and Epoch

Journal and epoch	Race	Ethnic	Sex	Gender	Age	Development
Journal						
<i>JCCP</i> (<i>N</i> = 201)						
<i>n</i>	34	37	130	32	96	6
%	17	18	65	16	48	3
<i>JCP</i> (<i>N</i> = 167)						
<i>n</i>	26	25	84	44	40	1
%	16	15	50	26	24	0.01
<i>PSY</i> (<i>N</i> = 169)						
<i>n</i>	7	3	25	15	114	0
%	4	2	15	9	67	0.0
Epoch						
1970–1973 (<i>N</i> = 169)						
<i>n</i>	15	8	98	3	70	0
%	9	5	58	2	41	0.0
1980–1983 (<i>N</i> = 192)						
<i>n</i>	26	20	88	29	98	0
%	14	10	46	15	51	0.0
1990–1993 (<i>N</i> = 176)						
<i>n</i>	26	37	53	59	81	7
%	15	21	30	34	46	4

Note. *JCCP* = *Journal of Consulting and Clinical Psychology*; *JCP* = *Journal of Counseling Psychology*; *PSY* = *Psychotherapy*.

Table 3
Means (and Standard Deviations) for Centrality and Accuracy Ratings

Journal and epoch	Centrality						Accuracy		
	Race	Ethnic	Sex	Gender	Age	Development	G/S	E/R	A/D
Journal									
<i>JCCP</i>									
<i>M</i>	38	0.37	1.36	0.35	0.99	0.06	0.28	0.34	0.09
<i>SD</i>	0.86	0.84	1.11	0.85	1.13	0.37	0.68	0.74	0.39
<i>JCP</i>									
<i>M</i>	34	0.39	1.16	0.69	0.48	0.02	0.48	0.27	0.08
<i>SD</i>	0.83	0.95	1.21	1.19	0.86	0.15	0.83	0.67	0.40
<i>PSY</i>									
<i>M</i>	0.08	0.03	0.34	0.22	0.87	0.00	0.14	0.03	0.00
<i>SD</i>	0.42	0.25	0.88	0.74	0.83	0.00	0.48	0.23	0.00
Epoch									
1970–1973									
<i>M</i>	0.21	0.09	1.22	0.05	0.70	0.00	0.02	0.08	0.00
<i>SD</i>	0.71	0.76	1.15	0.40	0.93	0.00	0.13	0.39	0.00
1980–1983									
<i>M</i>	0.29	0.25	1.02	0.37	0.87	0.00	0.23	0.20	0.06
<i>SD</i>	0.76	0.76	1.17	0.93	1.00	0.00	0.62	0.58	0.35
1990–1993									
<i>M</i>	0.31	0.47	0.69	0.81	0.80	0.08	0.64	0.38	0.11
<i>SD</i>	0.78	0.96	1.11	1.20	1.00	0.42	0.90	0.77	0.44

Note. G/S = gender–sex; E/R = ethnicity–race; A/D = age–development; *JCCP* = *Journal of Consulting and Clinical Psychology*; *JCP* = *Journal of Counseling Psychology*; *PSY* = *Psychotherapy*.

Table 4
Centrality Ratings—Analyses of Variance

Dependent variable and effect	<i>df</i>	<i>MS</i>	<i>F</i>	Post hoc results
Race				
Journal (J)	2	4.820	8.667**	<i>PSY < JCCP = JCP</i>
Epoch (E)	2	0.504	0.906	
J × E	4	0.123	0.220	
Residual	528	0.556		
Ethnic				
Journal	2	7.140	13.241**	<i>PSY < JCCP = JCP</i>
Epoch	2	6.252	11.595**	1970 < 1980 < 1990s
J × E	4	1.089	2.020	
Residual	528	0.539		
Sex				
Journal	2	52.417	42.415**	<i>PSY < JCCP = JCP</i>
Epoch	2	11.297	10.219**	1990 < 1980 < 1990s
J × E	4	3.65	3.302	
Residual	528	1.104		
Gender				
Journal	2	10.224	12.698**	<i>JCP < JCCP = PSY</i>
Epoch	2	21.519	26.727**	1970 < 1980 < 1990s
J × E	4	1.446	1.796	
Residual	528	0.805		
Age				
Journal	2	12.632	14.176**	<i>JCCP < JCP = PSY</i>
Epoch	2	3.634	4.079	
J × E	4	3.263	3.662*	— ^a
Residual	528	0.891		

Note. *PSY* = Psychotherapy; *JCCP* = Journal of Consulting and Clinical Psychology; *JCP* = Journal of Counseling Psychology.

^a Because of low cell frequencies, analysis of interaction effects was not considered to be justified.

* $p < .05$. ** $p < .01$.

Table 5
Accuracy Ratings—Analyses of Variance

Dependent variable and effect	<i>df</i>	<i>MS</i>	<i>F</i>	Post hoc findings
Age–development				
Journal (J)	2	0.439	4.466	
Epoch (E)	2	0.581	5.908*	1970 < 1990s
J × E	4	1.028	10.455**	— ^a
Residual	528			
Race–ethnicity				
Journal	2	4.726	13.760**	PSY < JCCP = JCP
Epoch	2	4.305	12.533**	1970 < 1980 < 1990s
J × E	4	0.801	2.331	
Residual	528	0.343		
Sex–gender				
Journal	2	4.813	12.179**	JCP > JCCP = PSY
Epoch	2	16.162	40.898**	1970 < 1980 < 1990s
J × E	4	1.032	2.611	
Residual	528	0.395		

Note. PSY = Psychotherapy; JCCP = Journal of Consulting and Clinical Psychology; JCP = Journal of Counseling Psychology.

^a Because of low cell frequencies, analysis of interaction effects was not considered to be justified.

* $p < .05$. ** $p < .01$.