Measures of Autonomy

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Abstract: Two studies examined the validity of 2 CPI autonomy scales developed by Kurtines (1973, 1978). In the first study, a criterion rating of autonomy based upon observer descriptions of adults ($n = 314$) was determined from the California Q-set. This 10-item criterion was validated in a second study with college sophomores ($n = 142$). Using the criterion with a combined sample of subjects, individuals high or low on autonomy were identified. Personality profiles of each group were determined from their responses to the CPI. Personality dimensions associated with ascendancy, self-assurance, interpersonal adequacy, and achievement orientation differentiated the two criterion groups. Correlation and multiple regression analyses indicated that Kurtines' first (1973) autonomy scale by comparison predicted these personality dimensions substantially better than his second (1978) scale. It was concluded, however, that neither scale adequately measured the global personality construct of autonomy because (a) each scale assessed autonomous rule compliance to the exclusion of autonomous rule defiance, and (b) each scale measured only socially desirable aspects of autonomy.

Historically, theories of personality development assigned prominence to the construct of autonomy (Erikson, 1950; Jung, 1933; Murray, 1938). The attainment of autonomy often represented a developmental endpoint, synonymous with psychological maturity and personal fulfillment (Hogan, 1973; Kohlberg, 1969; Piaget, 1932). Despite its importance, autonomy continually proved an elusive concept, both in its definition and measurement.

Autonomous individuals possess qualities of independence, freedom, self-direction and self-determination. According to Murray (1938), they wish neither to lead nor be led, want to go their own way, uninfluenced and uncoerced by others. He further described such persons as "unattached, defiant of conventions, irresponsible, rebellious, radical, stubborn, and resistant" (p. 156-157). Gough (1980) used the terms "assertive, egotistical, strong-willed, indifferent toward others, headstrong, and unconventional" (p. 12). Finally, Hogan (1973), Hogan, Johnson, and Emler (1978), and Kurtines (1974) conceptualized autonomy as the capacity to make decisions without being influenced by peer group pressure or the dictates of authority.

These definitions indicate two important but often overlooked properties of autonomy. First, autonomous individuals embody both socially desirable (e.g., independent, strong-willed) and undesirable (e.g., egotistical, irresponsible) qualities. For a measure of autonomy to be valid, it should assess both of these aspects. Second, the complexity of these descriptions suggest that autonomy as a personality construct may be multidimensional. Instead of a singularly specific characteristic, autonomy may constitute a rubric for several personality characteristics in combination.

A number of personality inventories include autonomy among their scales, most notably the Personal Preference Schedule (PPS) (Edwards, 1957), Adjective Check List (ACL) (Gough & Heilbrun, 1980), and Personality Research Form (PRF) (Jackson, 1971). In addition, Kurtines (1973, 1978) developed two separate and distinct autonomy scales based upon items from the California Psychological Inventory (CPI) (Gough, 1957).

The first scale (Kurtines, 1973, 1974) evolved as an attempt to understand autonomous rule compliance as it pertained to moral development. Working

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with a specially prepared 76-item version of the California Q-set (CQ) (Block, 1961), Kurtines isolated five items most characteristic and five items least characteristic of an autonomous individual. Peer ratings of subjects with these CQ statements were correlated with CPI items. Analyses with the resultant 38-item scale indicated that autonomy was "associated with a complex cluster of personological variables which included achievement orientation, interpersonal aggressiveness, moral sensitivity, and masculinity" (Kurtines, 1974, p.243). This scale emerged as *the* measure of autonomy for Hogan's (1978) model of moral development and has been frequently used by psychologists interested in a measure of autonomy (Haier, 1977; Mills & Bohannon, 1980; Tsujimoto & Nardi, 1978).

The second scale (Kurtines, 1978) also developed as a measure of individual differences with regard to autonomous rule compliance. Working this time with all 76 items of the CQ, Kurtines correlated an "ideal autonomy CQ profile" with observer CQ descriptions of subjects. Each subject received an autonomy score based upon these correlations. These scores then were correlated with CPI items, with the significant items reduced by factor analysis to a final scale containing 25 items.

There are several problems associated with the development of these scales. First, the "specially prepared 76-item version of the CQ" was in fact the prototype for the present 100-item CQ-set. Kurtines used an experimental version of the CQ (correct reference, Block, 1954), not the present CQ (Block, 1961). Second, the two autonomy scales share only one common item: "Planning one's activities in advance is very likely to take most of the fun out of life." This CPI item, however, was keyed "false" for the first scale, "true" for the second. Third, Kurtines used a total of five different samples to develop and validate the second scale ($n = 356$). Four of the five samples ($n = 241$) — including the two samples used specifically in the development of the scale — were all males. The fifth sample of psychology undergraduates ($n = 115$) had an unspecified distribution of males and females. The scale was therefore developed exclusively with male subjects and then validated on predominantly male samples. Fourth, the second autonomy scale was introduced into the literature *in vacuo;* that is, with no mention or citation of the previous scale. Thus, the same psychologist (Kurtines) developed two mutually exclusive autonomy scales with no indication of preference for either scale. The confusion caused by this oversight has already become apparent in the literature. Mills and Bohannon (1980) published a study which, according to their references, employed the second autonomy scale; in actuality, they used the first (Note 1). Finally, despite their labels as autonomy scales, neither scale by definition measures the global personality construct of autonomy. Both assess the narrower construct of autonomous rule compliance; that is, the extent to which an individual follows rules because of personal rather than social motivations.

The purpose of this study was to examine the validity of both CPI autonomy scales. The research focused in particular upon (a) the development of an observer criterion for measuring autonomy, (b) the degree of relation between the two scales, both with each other and the criterion, (c) the identification of personality characteristics associated with autonomy, and (d) the extent to which either scale assessed these relevant personality dimensions.

Method

Study 1

Subjects. A pool of subjects ($n = 314$) was drawn from the archives of the Institute of Human Development (IHD) at the University of California. This group consisted of individuals involved in one of three longitudinal studies conducted at IHD since the mid-1920s. The pool included individuals from the Berkeley Growth Study ($n = 41$), Guidance Study ($n = 152$), and Oakland Growth Study ($n = 121$). For a further descrip-

tion of these longitudinal studies, refer Eichorn (1981). Subjects included individuals who had participated in the studies from inception ($n = 193$) as well as individuals (viz: spouses) who had joined the studies in progress ($n = 121$). Subjects ranged in age from approximately 36 to 50 years with a mean age of 43.9 years. There was a slightly greater number of females ($n = 170$) to males ($n = 144$) with a predominance of white subjects ($n = 304$) to black ($n = 10$). All data used were collected between the years 1964 to 1971 as part of the 40- to 50-year followup interviews for the longitudinal studies.

Measures. Self-report scores of autonomy were based upon subjects' responses to the CPI (Gough, 1957). The CPI contains 480 true-false items and yields scores for 18 personality dimensions concerned with interpersonal behavior and social interaction. As previously indicated, Kurtines developed two separate autonomy scales based upon CPI items. The first scale (1973) — hereafter designated *Auto I* — consisted of 38 items; the second scale (1978) — hereafter designated Auto II — consisted of 25 items.[1]

In addition to these two self-report measures, observer-based scores of autonomy were determined from the CQ (Block, 1961). The CQ consists of 100 statements, each one descriptive of a particular aspect of an individual's personality or behavior. Statements are grouped into one of nine categories ranging from "1" (most *un*characteristic) to "9" (most characteristic). Each category along this continuum is defined by a fixed number of items, thereby ensuring a normal distribution.

Each subject was described with a CQ by three judges; one judge conducted the followup interview with the subject while the other judges read verbatim transcripts. The CQs of the two judges with the best agreement then were composited, with this resultant composite resorted to retain the normal distribution. The average Spearman-Brown reliability of the composite was .74 with a range from .59 to .88.

[1] Copies of the scoring criteria for both Auto I and Auto II are available from the author.

Table 1

California Q-set Autonomy Scale[a]

Item No.	Item Description	Item-Total Correlation[b]
1	Is critical, skeptical, not easily impressed.	.57
8	Appears to have a high degree of intellectual capacity.	.48
14[c]	Genuinely submissive; accepts domination comfortably.	.68
19[c]	Seeks reassurance from others.	.64
24	Prides self on being objective, rational.	.63
40[c]	Is vulnerable to real or fancied threat, generally fearful.	.55
52	Behaves in an assertive manner.	.65
71	Has high aspiration level for self.	.54
91	Is power oriented; values power in self and others.	.53
96	Values own independence and autonomy.	.72

[a] Alpha reliability = .88.
[b] Mean inter-item correlation = .41.
[c] Indicates reversed item.

An observer score of autonomy was obtained by correlating CQ item #96 ("Values own independence and autonomy") with the remaining CQ items. Correlations which exceeded ±.40 were grouped into a scale, reversing the category position for the negatively correlated items [e.g., a category placement of "3" (fairly *un*characteristic) was changed to "7" (fairly characteristic)]. Items were subsequently deleted from the scale until (a) a maximum level of alpha reliability was achieved and (b) no negative correlations existed among any of the items.

Results

CQ (Observer) Autonomy Scale

The correlation of the CQ statement "Values own independence and auton-

Table 2
Mean Ratings of Autonomy Scales[a]

Scale	Males (n = 144)		Females (n = 170)	
	$\bar{X}$	SD	$\bar{X}$	SD
Auto I	22.22	3.31	21.11	2.97
Auto II	18.11	4.40	16.49	4.55
Auto CQ	6.40	1.16	5.37	1.20

[a] Auto II multiplied by a constant of 1.52 to achieve scale length parity with Auto I.

Table 3
Correlations of Autonomy Scales[a, b]

	Auto CQ	Auto I	Auto II
Auto CQ	—	.45	.28
Auto I	.27	—	.33
Auto II	.33	.40	—

[a] Correlations of males (n = 144) above diagonal; females (n = 170) below diagonal.

[b] All correlations significat at $p < .001$.

omy" with the remaining CQ statements yielded 14 items with correlations greater than ±.40 ($p < .001$). The elimination of items poorly correlated with the composite resulted in an observer autonomy scale containing 10 items with an alpha reliability of .88 and a mean inter-item correlation of .41. Table 1 presents a complete description of the scale — hereafter designated *Auto CQ* — including item-total correlations.

CPI (Self-Report) Autonomy Scales

Each subject was rated by both CPI autonomy scales — Auto I and Auto II. Mean scores were computed, and, as in-dicated by Table 2, significant differences were found between the two scores for both males ($t = 10.80$, $p < .001$) and females ($t = 13.90$, $p < .001$). These results also indicate that sex differences may be related to autonomy. Significant differences were found between males and females both for Auto I ($t = 3.15$, $p < .01$) and Auto II ($t = 3.20$, $p < .01$) as well as Auto CQ ($t = 7.66$, $p < .001$).

Correlational analyses were performed between the two CPI autonomy scales to determine the extent of their relation with one another. For males, the correlation was .33 ($p < .001$); for females, it was .40 ($p < .001$). Each scale was also correlated with the CQ criterion by sex. These four correlations ranged from .27 to .45 (Table 3). Although all correlations were statistically significant ($p < .001$), none of the correlations could be considered more than moderate in magnitude. This is particularly true when one considers that these scales ostensibly measure the same personality construct and, therefore, should be highly related to one another.

Four reasons may be offered to explain the moderate to poor correlations between each CPI autonomy scale and the CQ criterion. First, the self-report scales may be invalid; either one or both are deficient as measures of autonomy. Second, the criterion may be invalid; it may not measure autonomy. Third, the correlations may result from problems associated with multimethod comparisons; that is, the CPI scales are self-report measures while the CQ scale is an observer measure. Finally, autonomy may not be a unidimensional personality construct. The scales may all be assessing autonomy, albeit different aspects of autonomy. A second study was conducted to examine the merit of any or all of these explanations.

Method

Study 2

Subjects. A pool of subjects (n = 142) was drawn from the archives of the Institute of Personality Assessment and Research (IPAR) at the University of California. This group consisted of predominantly white, middle to upper-middle class college sophomores who participated in one of two assessment studies conducted at IPAR. The pool included individuals from the "Career Decision-Making" Study (n = 100) and "Attitudes toward Social Problems" Study (n = 42). For a further description of IPAR assessment procedures, refer Wiggins (1973). The sample contained an equal number of males (n = 71) and females (n = 71). All data used were collected between the years 1978 to 1981 as part of a one-day assessment.

Measures. Similar to Study 1, sub-

Table 4
Validation of CQ Autonomy Scale[a]

	Auto CQ	ACL Obsvr	ACL Self	Auto I	Auto II
Auto CQ	—	.63*	.46*	.25***	.04
ACL Obsvr	.69*	—	.26**	.21***	.11
ACL Self	.45*	.41*	—	.22***	.23***
Auto I	.26**	.05	.09	—	.08
Auto II	.23***	.07	.31**	.30**	—

[a] Correlations of males ($n=71$) above diagonal; females ($n=71$) below diagonal.
* $p < .001$.
** $p < .01$.
*** $p < .05$.

jects completed the *California Psychological Inventory* and two separate self-report scores of autonomy were determined using Kurtines' (1973, 1978) criteria. In addition, all subjects completed a self-report ACL (Gough & Heilbrun, 1980). The ACL "presents a library of descriptive terms, covering the widest possible range of behavior, self-conceptions, and personal values" (Gough, 1960, p. 109). It contains 300 adjectives and yields scores on 37 personality dimensions, including autonomy.

Observer ratings of autonomy based upon the CQ were also obtained, though ratings reflected the composite of five judges, not two. The average alpha reliability of the composite was .76 with a range from .40 to .92. In addition, a second observer autonomy scale was generated based upon the ACL. Each subject was described with an ACL by 10 judges. Two judges had conducted separate interviews with the subject; the remaining eight based their descriptions upon impressions garnered during an 8-hour, one-day assessment. The average alpha reliability of the judges was .80 with a range from .36 to .94. All 10 ratings were composited by applying a "30% rule." If 30% of the judges endorsed a particular adjective, that adjective was considered descriptive of the subject. By this method, the endorsement rate of the judges as measured by the number of adjectives checked (70-110 adjectives) approximated the average endorsement rate of subjects who respond to the ACL as a self-report inventory (Note 2). These composited observer ACLs were then scored with the revised (1980) ACL scoring program yielding an observer autonomy scale.

Results

Validation of CQ (Observer) Autonomy Scale

As a means of validation, the CQ autonomy scale was correlated with a second, separate rating of autonomy derived from the ACL. The correlation between these two observer scales was .63 ($p < .001$) for males and .69 ($p < .001$) for females. These results seem to discount one explanation offered earlier for the comparatively poor correlations between the CPI and CQ scales; namely, that the latter was not a valid measure of autonomy. These results indicate a significant relation between the CQ criterion and a second observer rating of autonomy.

In addition, the correlations between the CQ scale and the self-report ACL autonomy scale were .46 ($p < .001$) for males and .45 ($p < .001$) for females. These correlations substantially exceed the correlations between the CQ and Auto I for males ($r = .25$, $p < .05$) and females ($r = .26$, $p < .05$) as well as the CQ and Auto II for males ($r = .04$, *ns*) and females ($r = .23$, $p < .05$). These findings seem to discount another explanation offered earlier: namely, that poor correlations were due to method differences (self-report vs. observer).

Table 5
CPI Scores for Autonomy Criterion Groups

CPI	Males				Females			
	High Auto ($n = 55$)		Low Auto ($n = 23$)		High Auto ($n = 21$)		Low Auto ($n = 55$)	
	$\overline{X}$	*SD*	$\overline{X}$	*SD*	$\overline{X}$	*SD*	$\overline{X}$	*SD*
Do	33.42	3.74	25.00	3.85*	32.52	6.32	24.85	6.39*
Cs	21.75	2.58	18.78	3.97*	23.14	3.53	19.60	4.29*
Sy	25.96	3.99	21.52	5.35*	27.71	4.29	22.93	3.55*
Sp	39.55	4.44	33.04	6.33*	39.67	6.95	33.05	6.77*
Sa	23.84	2.96	19.00	3.88*	24.33	2.92	19.31	3.23*
Wb	38.89	3.23	34.13	5.11**	35.33	4.54	35.73	4.90
Re	31.51	4.87	30.48	3.86	30.62	5.53	31.78	3.85
So	36.13	4.87	35.43	6.13	36.48	5.27	38.15	5.33
Sc	30.33	6.50	30.39	6.48	28.19	7.24	30.05	6.95
To	24.18	3.85	22.43	5.57	24.38	3.79	23.84	4.42
Gi	17.82	5.27	15.57	4.48	17.67	5.67	16.78	6.16
Cm	26.00	1.63	25.83	2.05	25.43	2.04	26.29	1.85
Ac	29.82	3.50	26.26	5.09**	28.14	5.30	27.05	4.45
Ai	22.42	3.55	20.48	4.25	23.48	3.03	22.20	3.58
Ie	40.96	3.83	38.30	4.77**	41.85	5.04	38.31	5.73**
Py	13.65	2.40	11.91	3.54	14.29	3.10	12.95	2.98
Fx	10.16	4.23	10.13	4.25	11.76	3.91	10.84	3.28
Fe	16.42	2.82	19.00	3.15**	21.24	3.95	24.69	3.27*

Note: Due to the large sample from which these groups were selected, a strict level of confidence ($p < .01$) was adopted.
* $p < .001$.
** $p < .01$.

The two self-report CPI autonomy scales also correlated poorly with the self-report ACL scale. For males, correlations for Auto I were .22 ($p < .05$) and Auto II .23 ($p < .05$). For females, the correlations were .09 (*ns*) and .31 ($p < .01$), respectively. The study also replicated the poor correlations of the CPI scales with each other.

Validation of CPI (Self-Report) Autonomy Scale

The CQ criterion was used with a combined sample of IHD and IPAR subjects ($n = 456$) to differentiate autonomous and nonautonomous individuals. The former group consisted of subjects more than $+1\sigma$ from the mean; the latter group, more than $+1\sigma$. For males, the CQ criterion ($\overline{X} = 6.36$, $\sigma = 1.08$) differentiated 55 autonomous and 23 nonautonomous individuals. For females, the CQ ($\overline{X} = 5.61$, $\sigma = 1.19$) differentiated 21 autonomous and 55 nonautonomous individuals. Personality profiles based upon the CPI were subsequently derived from the mean scale scores for each group.

The data suggest that autonomy is related to several personality dimensions which in combination reflect an individual's level of personal and social independence. For both males and females, these dimensions include dominance (*Do*), capacity for status (*Cs*), sociability (*Sy*), social presence (*Sp*), self-acceptance (*Sa*), intellectual efficiency (*Ie*), and femininity (*Fe*). For males only, the two additional dimensions of sense of well-being (*Wb*) and achievement via conformance (*Ac*) are associated with autonomy. One may now

Table 6
Correlation of CPI Autonomy Scales with Standard CPI Scales

CPI Scale	Males ($n = 215$)		Females ($n = 241$)	
	Auto I	Auto II	Auto I	Auto II
[a]Dominance (*Do*)	.62	.44	.62	.40
[a]Capacity for Status (*Cs*)	.49	.40	.59	.41
[a]Sociability (*Sy*)	.49	.36	.63	.40
[a]Social Presence (*Sp*)	.46	.33	.55	.42
[a]Self Acceptance (*Sa*)	.43	.21	.58	.38
[a]Well Being (*Wb*)	.38	.38	.30	.22
Responsibility (*Re*)	.19	.12	.16	.00
Socialization (*So*)	.28	.01	.04	−.14
Self-Control (*Sc*)	.05	.16	−.03	.06
Tolerance (*To*)	.26	.33	.31	.22
Good Impression (*Gi*)	.25	.41	.31	.34
Communality (*Cm*)	.04	−.12	.10	−.15
[a]Achievement via Conformance (*Ac*)	.52	.29	.44	.23
Achievement via Independence (*Ai*)	.18	.19	.27	.20
[a]Intellectual Efficiency (*Ie*)	.40	.41	.49	.31
Psychological Mindedness (*Py*)	.26	.43	.37	.38
Flexibility (*Fx*)	−.06	−.07	.12	.10
[a]Femininity (*Fe*)	−.19	−.10	−.31	−.22

[a] Dimensions relevant to the personality construct of autonomy.
Note: Correlations ≥ 0.19 significant at $p < .001$.

examine the extent to which either Auto I and/or Auto II assess these relevant personality dimensions.

Correlational analyses were performed with each autonomy scale and the 18 standard CPI scales. For males, Auto I substantially correlated with eight of the relevant dimensions of autonomy; it failed to correlate only with the ninth dimension (*Fe*). Equally important, correlations were weak or nonsignificant with those dimensions irrelevant to autonomy. For females, the same pattern applied. Auto I substantially correlated with six (*Do, Cs, Sy, Sp, Sa, Ie*) of the seven (*Fe*) dimensions. In fact, the scale also correlated highly with the achievement dimension (*Ac*) which differentiated males but not females. Finally, the scale was correlated weakly or nonsignificantly with the remaining CPI scales.

All of the correlations of Auto II with the CPI scales relevant to autonomy were equal or less than the correlations of those scales with Auto I. In addition, Auto II for both males and females predicted to several CPI scales irrelevant to autonomy.

The CPI dimensions were also regressed onto both Auto I and Auto II. For males, the dimensions yielded a multiple r of .71 and .55 for Auto I and Auto II, respectively. For females, the multiple r was .74 and .49, respectively. Thus, those personality dimensions relevant to autonomy explained over 50% of the variance for Auto I but only 25% for Auto II. It would appear, then, based upon both the correlation and multiple regression analyses that Auto I by comparison with Auto II more effectively predicts to the personality construct of autonomy.

Discussion

The findings of this study suggest a number of meaningful implications. First, the results indicate that autonomy may

not be a simple, homogeneous personality dimension but rather a complex constellation with several facets. For males, autonomy was related with measures of poise, ascendancy, self-assurance, and interpersonal adequacy. These concepts — associated with the CPI scales of dominance, capacity for status, sociability, social presence, self-acceptance, and well-being — identify individuals who are strong, influential, ambitious, outgoing, secure, sociable, healthy, and possess leadership ability and self-confidence (Megargee, 1972). Such qualities are similar to earlier descriptions of autonomous persons who were viewed as independent, free, self-directing, and self-determining.

Achievement potential, particularly *Ie* and *Ac*, was also related with autonomy. Some association between autonomy and intelligence was expected, particularly as measured by the *Ie* scale. This CPI dimension assesses self-confidence, self-assurance, physiological health, social acceptibility without dependence on others, and a preference for intellectual pursuits (Gough, 1968). All are qualities descriptive of autonomous individuals. However, the significant relation of autonomy with *Ac* rather than *Ai* (achievement via independence) was surprising. The former scale assesses a "strong need for achievement coupled with a deeply internalized appreciation of structure and organization" (p. 72) while the latter scale measures a "need for achievement in settings where independence of thought, creativity, and self-actualization are rewarded" (Megargee, 1972, p. 76). Based upon these definitions, a rational approach would predict that *Ai*, not *Ac* differentiate high and low scoring autonomous persons.

One postdictive explanation may be that autonomous men are more achievement oriented in general than nonautonomous men. Earlier research on autonomy (Kurtines, 1974) found a relation with achievement orientation. Hogan (1973) reported a significant correlation ($r = .40$, $p < .05$) between *Ac* and autonomy as measured by peer ratings. (He also found no significant relation between *Ai* and autonomy.) As Table 5 indicated, the autonomous group was higher on all three dimensions of achievement (*Ac*, *Ai*, *Ie*) even though the mean differences using a strict confidence level ($p < .01$) were statistically significant for only two of the scales. Therefore, one explanation may be that overall achievement potential differentiates autonomous males better than any one particular aspect of achievement.

A second postdictive explanation may be derived from consideration of the reasons for the development of the CPI-based autonomy scales. They were formulated as an attempt to measure autonomous rule compliance (Kurtines, 1974, 1978). The scales' basic assumption was that individuals complied with rules; they simply sought to determine the reason for this rule-following inclination. The scales therefore presumed a tendency toward compliance (viz: conformance) within an individual's personality domain. In essence, the scales measured the extent to which a person valued rules, structure, and order; values associated with persons scoring high on achievement via conformance, not independence.

For females, the results were similar with one notable exception. The *Ac* scale did not significantly differentiate the two criteria groups. This finding may reflect the social norms present during the data collection for the IHD sample. Such norms placed greater value upon achievement for men than women. As Table 6 indicated, however, *Ac* did prove significantly correlated with Auto I suggesting some relation. Again, *Ai* was not found to be highly associated with autonomy.

For both males and females, the autonomous criterion group was significantly lower on *Fe* than the nonautonomous group. This differentiation, however, was not substantially reflected by the correlations of *Fe* with either autonomy scale. The *Fe* scale's differentiation of the two groups was consistent with the findings since the scale identifies people who are aggressive, possess initiative, and seek new adventures and

experiences (Gough, 1968).

The second implication of this study concerns the question of sex differences and autonomy. Some sex differences were found for Auto CQ, Auto I, and Auto II. Given the poor performance of the last scale, only differences reflected by the first two are meaningful. For the IHD sample, significant differences of $.35\sigma$ ($p < .01$) and $.87\sigma$ ($p < .001$) were found between the two sexes for both Auto I and Auto CQ. For the IPAR sample, differences were $.24\sigma$ and $.07\sigma$ for the respective scales, with neither difference reaching significance. Although sex differences existed, they were found only in the older (40-50 years) IHD sample, not in the younger (18-20 years) IPAR sample. The former group of persons grew up in a time that discouraged attempts by women to lead independent and self-determined lives. Conversely, the latter group reflected a subculture that encouraged independence. This was particularly true of these women since they were all students at a highly competitive university. Thus, although some sex differences were found, they appear due more to changing cultural forces than inherent properties of autonomy.

The third and perhaps most important implication of this study concerns the apparent lack of validation for either CPI-based autonomy scale. By comparison, Auto I predicted to those personality dimensions relevant to autonomy substantially better than Auto II. Neither scale, however, correlated more than moderately with the various criterion ratings of autonomy — both observer (CQ, ACL) and self-report (ACL) — though again, by comparison Auto I correlated substantially higher than Auto II.

Two explanations may be offered for this poor relation with the criteria. First, neither scale assessed the socially nondesirable qualities associated with autonomy. Those characteristics measured by these scales were all positive (e.g., independence, self-assurance, self-determination); the scales failed to measure any negative qualities (e.g., resistance, rebelliousness, irresponsibility, indifference toward others). Second, the various criteria reflected both the compliant and defiant nature of the autonomous individual. Both scales, however, were developed for the expressed purpose of assessing autonomous rule compliance only. Consequently, that aspect of the autonomous person which values defiance of rules would not be assessed by either scale. Thus, neither scale could correlate more than moderately with the criteria because neither scale measured all the facets of the autonomous individual's personality.

Conclusion

This article argued that confusion presently exists within the field of personality psychology due to the presence of two CPI-based autonomy scales. By the development of valid criteria, and the identification of individuals high or low on autonomy, it was possible to isolate personality characteristics relevant to autonomy. Correlation and multiple regression analyses revealed that the first autonomy scale (Kurtines, 1973) measured these relevant characteristics substantially better than the second scale (Kurtines, 1978). Even the former scale, however, lacked adequate validity in that socially desirable qualities associated with autonomy were measured to the exclusion of socially undesirable qualities. In addition, a re-evaluation of the scale's purpose appears necessary, one which will broaden its scope beyond merely autonomous rule compliance and include as well autonomous rule defiance. Only then could the scale be considered a valid measure of autonomy.

Reference Notes

1. Mills, C. Personal communication, August 13, 1980.
2. Gough, H. Personal communication, January 19, 1981.

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