

**RELIABILITY OF A FOUR-QUADRANT MODEL OF SELF-CONTROL:
RATINGS BY EXPERTS IN TYPE A BEHAVIOR—HEALTH
PSYCHOLOGY, EAST/WEST PSYCHOLOGY, AND
SEX ROLE PSYCHOLOGY**

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In a previous effort, words were generated which were supposed to reflect four different quadrants of a model of self-control. Quadrants 1 (active assertive) and 2 (passive yielding) were considered positive; and Quadrants 3 (over active, overcontrol) and 4 (too passive, too little control) were considered negative. To insure reliability of the words generated, as well as the discreteness of quadrants, male and female experts, reflecting three fields of specialization which seemed germane to the model—East/West psychology, sex role psychology, and Type A behavior—were requested to rate the words along the four dimensions. Overall rater reliability among the six experts was 78%, with 100% agreement on 34 words, and 83 1/3% agreement on 15 words. The implications of this study for the development of an adjective checklist reflecting a four-quadrant mode of self-control are noted, as well as suggestions and guidelines for future research.

Based on Eastern and Western self-control strategies (Shapiro & Zifferblatt, 1976) and Eastern and Western views of self-control (Shapiro, 1978) as a theoretical foundation, a four-quadrant model and construct of self-control was developed (Shapiro, 1982). Quadrants 1 (active, assertive) and 2 (passive, yielding) are considered positive, and Quadrants 3 (over active, overcontrol) and 4 (overly passive, too little control) are considered negative. In a previous effort, words were generated which were supposed to reflect each of the four quadrants (Shapiro, Peper, Harr, Carrere, Note 1). It was hoped that this model would have utility for discriminating between Eastern and Western psychological approaches (Walsh, 1980; Goleman & Epstein, 1982; Rajneesh, 1982). Further inspection of the previous study, however, suggested that the words generated could have considerable overlap with two additional literatures, that of sex role psychology (Bem, 1974, 1981; Spence, Helmreich, Holahan, 1979; Spence, Helmreich, Stapp, 1975; Spence, Helmreich, 1979) and the literature on Type A behavior and health (Friedman & Rosenman, 1974; Brunson et al, 1981; Vickers, et al, 1981).

In an effort to make the four-quadrant model as potentially inclusive and relevant as possible, and to insure the discreteness of the four quadrants, many of those words of high salience from the previous study were listed as a first effort at developing an adjective checklist instrument. This study was an effort to determine how much agreement there would be on these words between experts reflecting the three different literatures cited above.

METHODOLOGY

Subjects: Subjects were six individuals, three male and three female, five with a Ph. D., and one with a Ph. D./M.D. All six had published in one of the three respective fields of East/West psychology, Type A behavior, or sex role psychology. One male and one female were selected to represent each group.

The Instrument and Coding Instructions: Each individual was given a list of the 87 words, 68 of which were generated from the previous study and 19 of which were added later because of their seeming relevance. The individuals were given a coding sheet with instructions as detailed in Table 1. They were instructed to try as much as possible to place the words into one of the four quadrants. If unable, five different coding categories were offered: active, but not sure whether positive or negative; passive, but not sure whether positive or negative; positive, but not sure whether active or passive; negative, but not sure whether active or passive; and unable to decide whether active or passive, positive or negative (See Table 1).

RESULTS

Overall, there was 78% reliability among the six experts. As can be seen from Fig. 1, there were 34 words with 100% agreement, 15 with 83 1/3% agreement, 20 with 66 2/3% agreement, 14 with 50% agreement, and 4 words with 33 1/3% agreement.

In Table 2, there is a listing of specific words by quadrant and the percent of agreement among raters. If we decide that the adjective checklist should include

Table 1. Coding Sheet—Instructions to Experts

On the following pages are several words. We would appreciate it if you would rate these words based on the following coding categories. Our preference is that you try, insofar as is possible, to put all words into the first four categories. If you absolutely feel that a word does not fit into the first four categories, then please use categories 5 through 9.

1. *Active Assertive Positive.*

This refers to words which show instrumental activity in a positive way toward the accomplishment of something—goal oriented, self-starter, independent. They involve a concept of doing, of activity, of motion.

2. *Passive (Yielding) Letting Go Positive.*

This refers to the positive aspects of acceptance, yielding, softness, gentleness, nurturing. There is more a sense of stillness here, of quiet, of softness, of being.

3. *Active (over assertive) Negative (over active/over control).*

This refers to too much activity, too high control, a sense of aggressiveness, a certain ruthlessness, a Machiavellian quality, a high agitation, an insensitivity, a selfishness.

4. *Passive (over yielding) Negative (too low self-control).*

This refers to too low activity, a mushiness, an over passivity, a diffuseness, undifferentiatedness, helplessness and hopelessness.

Again, please try to fit all the words, phrases, and sentences/questions on the next pages in the above four categories. If they do not fit, please then use the following categories:

5. Active, but uncertain whether it is positive or negative.

6. Passive, yielding word, but uncertain whether it is positive or negative.

7. A positive word, but uncertain whether it is active or passive.

8. A negative word, but uncertain whether it is active or passive.

9. Not sure whether the word is positive or negative, active or passive.

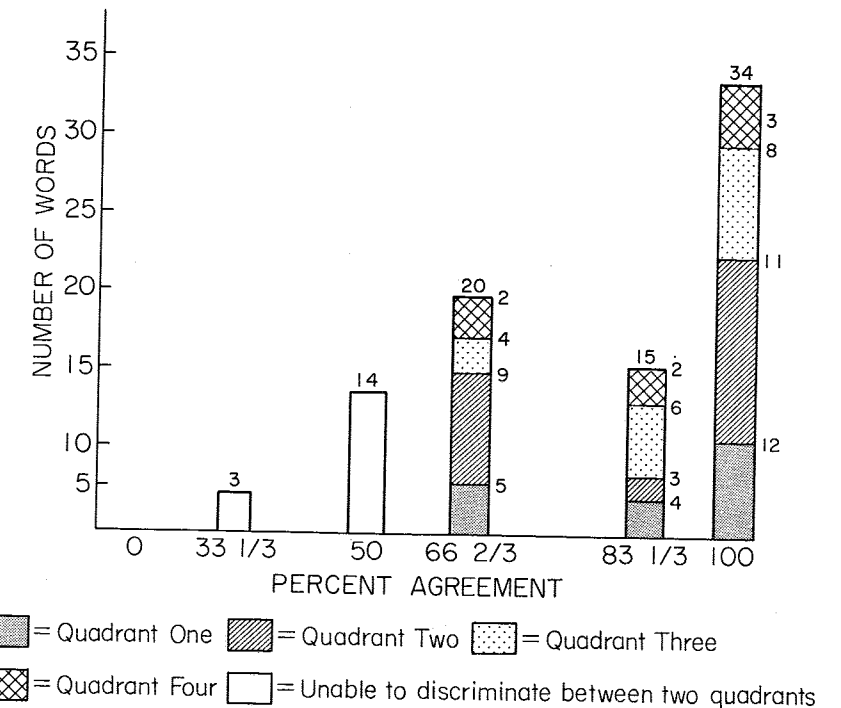


Fig. 1. Percent of rater agreement (by quadrant)

only those words where there is 66 2/3% agreement or higher, the reliability on these words (N=69) is over 86%. If we only utilize those words in which there was 83 1/3% agreement or higher (N=49) we get a rater reliability of over 94%.

Table 3 lists those words in which there was less than 66 2/3% agreement in terms of the four quadrants. We divided these words into active (but couldn't reach agreement on whether positive or negative, e.g., confrontive); passive (but couldn't reach agreement on whether positive or negative, e.g., following); positive (but couldn't reach agreement on whether active or passive, e.g., willing to risk); and negative (but couldn't reach agreement on whether too active or too passive, e.g., inattentive).

DISCUSSION

By finding words which experts in Type A—health psychology, East/West psychology, and sex role psychology, agree are representative of each of the four quadrants of our self-control model, we gain some degree of confidence about the discreteness of the four quadrants. Although there are many words on which agreement could not be reached (Table 3) it is an encouraging sign to find words in which five out of six or six out of six of our male and female experts in the three areas did agree.

It should be pointed out that these words were listed in an omnibus way, and

Table 2. A Listing of Words by Quadrant and Rater Agreement

QUADRANT	1	2	3	4
100% (N=34)	decisive leading explorative making contact well organized purposeful assertive initiating confident logical responsible self-starting N=12	accepting letting go patient receptive listening gentle trusting soft calm open relaxed N=11	impatient reluctant to change manipulating overcontrolling pushy dogmatic rigid critical N=8	indecisive manipulated timid N=3
83 1/3% (N=15)	attentive independent communicating needs rational N=4	sensitive flowing yielding N=3	selfish defensive tense aggressive impulsive withholding N=6	past-oriented dependent N=2
66 2/3% (N=20)	goal oriented instrumental self-controlled cooperative creative N=5	unobtrusive nurturing adaptable intimate letting defenses go compassionate taking pleasure aware respectful N=9	closed self-critical insensitive controlling N=4	defenseless nondirected N=2
TOTALS	N=21	N=23	N=18	N=7

PERCENT OF RATER AGREEMENT

Table 3.

	ACTIVE (not sure positive or negative)	PASSIVE (not sure positive or negative)	POSITIVE (not sure active or passive)	NEGATIVE (not sure active or passive)
100% (N=9)		passive being taken care of N=2	realistic sharing having humor empathic willing to risk sensual N=6	unaware N=6
83 1/3% (N=6)	future directed confrontive N=2	following vulnerable N=2	present centered N=1	inattentive N=1
66 2/3% (N=2)		egoless		self-conscious
50% (N=1)			serious	

N=18

further research may need to look at their appropriateness in more situation specific (Mischel, 1968) and domain specific ways. As one of the experts noted, "There was difficulty coding because most words carry different connotations depending upon their context." Future research should try to look at whether different modes of self-control can be utilized by individuals depending upon the situation (i.e., the flexibility to move from Quadrant 1 to Quadrant 2 or visa versa). Further, although this study helps give us words which reflect discrete quadrants, future research needs to help clarify homogeneity of words within a given quadrant.

As can be seen from Table 2, there are several words in the first three quadrants on which there was 100% agreement, but fewer words (N=3) reflecting Quadrant 4. Additional clarification and elaboration of this quadrant, therefore, seems particularly important. Further, the word passive, which is one of the words utilized to describe Quadrants 2 and 4 (passive positive and passive negative), appears to be a poor choice for only one person saw passive as solely positive, and three saw it as solely negative. Perhaps the word yielding which 83 1/3% saw as positive would be a better way to describe Quadrant 2, and timid, indecisive a better way to describe Quadrant 4.

In some cases, it appeared that expertise and orientation may have been a determining factor in placement of a word. For example, the male and female Type A—health psychology experts put the word *sharing* as an assertive mode, whereas the sex role experts put it as a yielding mode. Similarly, the male and female Type A—health psychology experts saw *intimate* as positive assertive, whereas all others saw it as positive yielding. And again, the Type A and B experts saw the word *nondirected* as positive yielding, whereas the rest of the experts saw it as passive negative. Perhaps, for a Type A person to be *nondirected* is quite positive, whereas for the other two traditions, being *nondirected* may be seen as negative.

Sometimes the disagreements lined up along sex of expert, regardless of orientation. For example, the male East/West expert and the male sex role expert both saw *goal-oriented* as sometimes positive and sometimes negative, whereas the other experts all agreed that it was positive.

Future research, in addition to refining and extending Quadrant 4; developing situation specific vignettes to determine individual flexibility of control styles; and determining homogeneity of items within quadrants; should also look at how experts in other cultures would view these quadrants to see if their discreteness can hold across culture. Further, the relevance of these dimensions to a control model of psychological health and individual wellbeing needs to be further explored and refined, as well as the relationship of the various quadrants to self-control strategies which might be utilized to achieve the construct embodied by those quadrants.

Reference Note

Shapiro, D. H., Peper, E., Harr, M., & Carrere, S. Toward a four-quadrant model of self-control: Positive and negative aspects of assertiveness and yielding. Under editorial review.

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