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 psy-
chology, 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 generat-
ed 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 addi-
tional 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

In an effort to make the four-quadrant model as potentially inclusive and re-
levant 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 develop-
ing 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, passive 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 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 raters 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); passive (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 which words in the 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

<table>
<thead>
<tr>
<th>QUADRANT</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>100% (N=24)</td>
<td>decisive leading, explorative, well organized, purposeful, assertive, confident, logical, responsible, self-starting</td>
<td>accepting letting go patient, receptive, listening, gentle, trusting, soft, calm, open, relaxed</td>
<td>impatient, resistant to change, manipulating, overcontrolling, pushy, dogmatic, rigid</td>
<td>indecisive, manipulative, timid, N=3</td>
</tr>
<tr>
<td>N=12</td>
<td>N=11</td>
<td>N=8</td>
<td></td>
<td></td>
</tr>
<tr>
<td>83 1/3% (N=15)</td>
<td>attentive, independent, communicating, needs, rational,</td>
<td>sensitive, flowing, yielding,</td>
<td>selfish, defensive, tense, aggressive, impulsive, withholding</td>
<td>past-oriented dependent</td>
</tr>
<tr>
<td>N=4</td>
<td>N=3</td>
<td>N=6</td>
<td>N=2</td>
<td></td>
</tr>
<tr>
<td>66 2/3% (N=20)</td>
<td>goal oriented, instrumental, self-directed, cooperative, creative</td>
<td>unobtrusive, nurturing, adaptable, intimate, letting defenses go, compassionate, taking pleasure, aware, respectful</td>
<td>closed, self-critical, insensitive, controlling, N=4</td>
<td>defined, non-directed, N=2</td>
</tr>
<tr>
<td>N=5</td>
<td>N=9</td>
<td>N=6</td>
<td>N=2</td>
<td></td>
</tr>
<tr>
<td>TOTALS</td>
<td>N=21</td>
<td>N=23</td>
<td>N=18</td>
<td>N=7</td>
</tr>
</tbody>
</table>

Table 3.

<table>
<thead>
<tr>
<th>ACTIVE (not sure, positive or negative)</th>
<th>PASSIVE (not sure, positive or negative)</th>
<th>POSITIVE (not sure, active or passive)</th>
<th>NEGATIVE (not sure, active or passive)</th>
</tr>
</thead>
<tbody>
<tr>
<td>100% (N=9)</td>
<td>passive being taken care of N=2</td>
<td>realistic, sharing, having humor, empathic, willing to risk sexual</td>
<td>unaware N=6</td>
</tr>
<tr>
<td>83 1/3% (N=6)</td>
<td>future directed, courageous N=2</td>
<td>following vulnerable N=2</td>
<td>present centered N=1</td>
</tr>
<tr>
<td>66 2/3% (N=2)</td>
<td>egoless</td>
<td>serious</td>
<td></td>
</tr>
<tr>
<td>50% (N=1)</td>
<td>self-conscious</td>
<td></td>
<td></td>
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</table>

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." Further 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, further 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 non-directed as positive yielding, whereas the rest of the experts saw it as passive negative. Perhaps, for a Type A person to be non-directed is quite positive, whereas for the other two traditions, being non-directed 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 female 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
REFERENCES


(Manuscript received March 12, 1982)