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# The Body Awareness Questionnaire: Reliability and Validity

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Norms and reliability and validity data are presented for an objectively scored Body Awareness Questionnaire (BAQ), which is suitable for use with college students and nonstudent adults. The BAQ is an 18-item scale designed to assess self-reported attentiveness to normal nonemotive body processes, specifically, sensitivity to body cycles and rhythms, ability to detect small changes in normal functioning, and ability to anticipate bodily reactions. Research applications, including investigation of sex-related differences in body awareness and its correlates, are discussed.

Within recent years, researchers have begun to reexamine an old and important two-part question: What kinds of concepts do we hold about our bodies, and how do we use this information as we interact with others? The question has been addressed in diverse areas of research including, for example, body esteem (Franzoi & Herzog, 1987), detection of bodily responses (Katkin, 1985), fitness and conditioning (Morgan, 1981), symptom reporting (Bishop, 1987), and beliefs about bodily change in emotion (Rimé & Giovanni, 1986). All of this research points to the complexity of body-related concepts as components of the self-system.

The paper-and-pencil measures of attentiveness to bodily processes that are currently available do not focus on body awareness as a general tendency. Instead, they specifically address physical symptoms characteristic of illness or other somatic complaint (e.g., the Cornell Medical Index—Abramson, Terespolsky, Brook, & Kark, 1965; the Moos Menstrual Distress Questionnaire—Moos, 1969; and the Pennebaker Inventory of Limbic Languidness—Pennebaker, 1982) or sensitivity to emotion-related bodily responses (e.g., the Autonomic Perception Questionnaire—Mandler, Mandler, & Uvillier, 1958; Shields, 1984; the Somatic Perception Questionnaire—Stern & Higgins, 1969; the Autonomic Nervous System Response Inventory—Waters, Cohen, Bernard, Buco, & Dreger, 1984). Miller, Murphy, and Buss (1981) devised a 5-item scale for assessing the awareness of internal bodily processes called the Private Body Consciousness scale, a subscale of the Body Consciousness Questionnaire. Four of the five items, however, pertain to sensations characteristic of emotion (e.g., awareness of heart activity, dry mouth or throat, internal bodily tensions, and change in body temperature). Although useful for describing the relation between body consciousness and self-consciousness, the scale's focus on emotion-related symptoms limits its use as an index of attentiveness to normal bodily processes in other research settings.



A much-needed research tool in this area is a means of quantitatively expressing individuals' attentiveness to normal bodily processes. An understanding of the structure and functioning of body-related concepts in personality requires investigation of the extent to which bodily responses and routinely monitored as well as their salience in self-judgment. The aim of our investigation was to develop a self-report scale for measuring beliefs about one's sensitivity to normal, nonemotive body processes. This article describes the construction and validation of the BAQ. Separate sections discuss scale development, demonstration of internal consistency, cross-validation, test–retest reliability, and convergent and discriminant validity.

## SCALE DEVELOPMENT

The item pool from which the BAQ was constructed was developed to represent the domain of reported awareness of normal body processes not typically associated with emotion or with somatic complaint. Items included on the scale pertain to sensitivity to body cycles and rhythms, ability to detect small changes in normal functioning, and ability to anticipate bodily reactions. Throughout the process of scale development, our aim was to include items that refer to processes which occur with sufficient frequency or intensity to allow self-assessment (e.g., note bodily reaction to various foods) and/or items that refer to detection of processes which are empirically verifiable (e.g., predict onset of the flu).

An initial pool of 52 items was generated by Stephanie A. Shields, the first author, and four undergraduate research assistants. Members of a large upper division psychology class then judged the face validity of the list by responding yes, no, or maybe to each item's accuracy as an indicator of awareness of bodily process. Items meeting the face validity criterion were included on a 25-item preliminary scale. Two additional items referring to the menstrual cycle (perception of ovulation and awareness of the onset of menses) were included for women.

The 25-item scale was administered to 369 college students (124 men and 245

women). Items were rated on a 9-point Likert scale ranging from *not at all true about me* (1) to *very true about me* (9). A criterion of .80 for Cronbach's alpha coefficient was set a priori to determine the item composition of the scale. Following the recommendations of Nunnally (1978), items correlating less than .30 with the scale total were dropped. Because the alpha coefficient obtained on the preliminary scale approached, but did not meet the .80 criterion, a second version of the BAQ was formulated. This version included 18 of the original items and 16 new items, which were either generated by members of the research group or were substantial revisions of items that had been rejected.

This 34-item version was administered to a second sample of 162 undergraduates; a 29-item version was derived, using the same criteria for retention as on the preliminary scale.

## STUDY 1: RELIABILITY

### Method

The 29-item scale was administered to a new sample of over 800 students and nonstudents ranging in age from 16 to 70 years old ($M = 23.8$, $SD = 10.6$). Completed questionnaires were obtained from a total of 794 participants (465 college students and 329 nonstudents). College students received course extra credit for participation. The sample of nonstudent adults consisted primarily but not exclusively of persons having at least a high school education who were employed in white collar or professional jobs (e.g., county clerical workers). Volunteers were recruited through our own and our students' families and co-workers. Nonstudent adults received no compensation for their participation. No record of race was kept, but based on the racial and ethnic proportions in the populations from which responses were drawn, the reliability sample was predominantly White.

### Results

*Scale refinement.* Scale items were retained or rejected on the basis of the item-scale total correlations as just described. In addition, items that were age, sex, race, or habit specific were dropped (e.g., one item pertaining to prediction of sunburn and two menstrual cycle items). A final set of 18 items provided an internally consistent scale (coefficient $\alpha = .82$). Items constituting the BAQ are listed in Table 1.

*Scale reliability and norms.* Scores were distributed normally and symmetrically. Alpha coefficients, means, and standard deviations are listed in Table 2.

A 2 × 2 (Sex × Student Status) analysis of variance (ANOVA) yielded a



TABLE 1
The Body Awareness Questionnaire (BAQ)

| | |
|---|---|
| 1. | I notice differences in the way my body reacts to various foods. |
| 2 | I can always tell when I bump myself whether or not it will become a bruise. |
| 3. | I always know when I've exerted myself to the point where I'll be sore the next day. |
| 4. | I am always aware of changes in my energy level when I eat certain foods. |
| 5. | I know in advance when I'm getting the flu. |
| 6. | I know I'm running a fever without taking my temperature. |
| 7. | I can distinguish between tiredness because of hunger and tiredness because of lack of sleep. |
| 8. | I can accurately predict what time of day lack of sleep will catch up with me. |
| 9. | I am aware of a cycle in my activity level throughout the day. |
| 10. | I *don't* notice seasonal rhythms and cycles in the way my body functions. |
| 11. | As soon as I wake up in the morning I know how much energy I'll have during the day. |
| 12. | I can tell when I go to bed how well I will sleep that night. |
| 13. | I notice distinct body reactions when I am fatigued. |
| 14. | I notice specific body responses to changes in the weather. |
| 15. | I can predict how much sleep I will need at night in order to wake up refreshed. |
| 16. | When my exercise habits change, I can predict very accurately how that will affect my energy level. |
| 17. | There seems to be a "best" time for me to go to sleep at night. |
| 18. | I notice specific bodily reactions to being overhungry. |

*Note.* Item 10 is reverse scored. Each item is rated on a 7-point Likert scale ranging from *not at all true about me* (1) to *very true about me* (7).

TABLE 2
Scale Means, Standard Deviations, and Coefficient Alpha: Reliability Sample

| | *N* | *M* | *SD* | *Alpha coefficient* |
|---|---|---|---|---|
| Women | | | | .80 |
| Students | 312 | 107.6 | 18.2 | |
| Nonstudents | 184 | 106.4 | 20.5 | |
| Men | | | | .82 |
| Students | 153 | 99.8 | 19.4 | |
| Nonstudents | 145 | 97.6 | 23.2 | |

significant main effect of sex, $F(1, 793) = 31.15$, $p < .001$. Correlation between age and BAQ score was low, $r = -.13$).

*Scale structure: Factor analysis.* The 18-item version of the BAQ was subjected to a principle components factor analysis followed by varimax rotation. Factors were selected on the basis of a criterion eigenvalue of 1.0 or greater; items defining each factor were those with factor loadings of .30 or greater.

Four factors accounted for 46% of the variance. The first factor contained items that pertain to detecting bodily change; the second factor contained items

that refer to prediction of bodily reactions. The third factor was composed largely of items pertaining to the sleep–wake cycle. The fourth was concerned with prediction of the onset of illness.

## STUDY 2: CROSS-VALIDATION

### Method

A cross-validation sample of 231 women and 219 men completed the 18-item BAQ. The age range was 14 to 77 years, with a mean of 23.1 and a standard deviation of 7.7. This sample included 304 college students drawn from the same subject pool as those in the reliability sample. The nonstudent adults ($n = 146$) were similar in occupation and education to those in the reliability sample and received no compensation for participation. As in Study 1, this sample was predominantly White.

Minor wording changes were made on four BAQ items for the sake of clarification. Because alpha coefficients were identical for the total reliability sample and for women and men when the 9-point scale was converted to a 7-point scale ranging from *not at all true about me* (1) to *very true about me* (7), the 7-point rating scale was used for the cross-validation sample in order to simplify administration and interpretation.

### Results

*Scale reliability and norms.* Scores were distributed normally and symmetrically. Alpha coefficients, means, and standard deviations for female and male students and nonstudents are listed in Table 3.

A 2 × 2 (Sex × Student Status) ANOVA yielded main effects for sex, $F(1, 449) = 17.06$, $p < .001$, and student status, $F(1, 449) = 4.40$, $p = .04$. Correlation between age and BAQ score was low and nonsignificant, $r = .08$.

TABLE 3
Scale Means, Standard Deviations, and Coefficient Alpha: Cross-Validation Sample

| | *N* | *M* | *SD* | *Alpha coefficient* |
|---|---|---|---|---|
| Women | | | | .83 |
| Students | 156 | 85.3 | 14.9 | |
| Nonstudents | 75 | 90.1 | 16.3 | |
| Men | | | | .77 |
| Students | 148 | 80.6 | 14.5 | |
| Nonstudents | 71 | 82.0 | 14.2 | |

*Note.* For this sample, subjects used a 7-point BAQ scale versus the 9-point scale used with the reliability sample.



*Scale structure: Factor analysis.* Factor structure was identified using a method identical to that used in the reliability sample. Six factors accounted for 58% of the variance. As Table 4 indicates, except for differences in the variance explained by each factor, Factors, 1, 2, 3, and 5 of the cross-validation sample were highly similar to Factors 3, 2, 1, and 4 of the reliability sample. Factor 4, Fitness, contained items that were subsumed under the Predict Body Reaction and Sleep–Wake Cycle factors of the reliability sample, whereas Body Patterns (Factor 6) included items that were part of Factors 1, 3, and 4 of the reliability sample.

## TEST–RETEST RELIABILITY

Test–retest reliability was assessed on an independent sample of 70 upper division student volunteers enrolled in two psychology courses. The BAQ was administered twice; times of testing were separated by 2 weeks. Test–retest reliability was very acceptable, $r = .80$.

## CONVERGENT AND DISCRIMINANT VALIDITY

The BAQ's convergent and discriminant validity was established by examining the relationship between responses to the BAQ and a set of self-report instruments that tap other dimensions of self-evaluation and self-awareness. Discriminant validity was further tested by comparing BAQ scores obtained from samples of two populations hypothesized to differ in attentiveness to normal body processes.

### Method

The scales used to establish the convergent and discriminant validity of the BAQ were administered to groups of introductory psychology students who were also members of the reliability or cross-validation samples. Groups varied in size and the particular combination of BAQ-relevant scales that were completed.

A hypothesized relation to the BAQ was the basis for identifying the type of measures needed to establish the convergent and discriminant validity of the BAQ. Each of the instruments used in the validity studies is well-known, widely used, and has been established as reliable and valid. These were:

1. The Private Self-Consciousness subscale and Public Self-Consciousness subscale of the 23-item Self-Consciousness Inventory (Fenigstein, Scheier, & Buss, 1975; Buss, 1980). The Public Self-Consciousness subscale taps awareness of the self as a social object, whereas the Private Self-

TABLE 4
Factors and Factor Loadings of the Body Awareness Questionnaire

| Item | | Factor Loading |
|---|---|---|
| *Reliability Sample*[a] | | |
| Factor 1: Note Response or Changes in Body Process | | |
| | 1 Reaction to food types | .75 |
| | 4 Food and energy level | .67 |
| | 10 Seasonal rhythms | .48 |
| | 13 Reaction to fatigue | .39 |
| | 14 Reaction to weather | .60 |
| | 16 Exercise and energy level | .50 |
| Factor 2: Predict Body Reaction | | |
| | 2 Predict bruise | .61 |
| | 3 Predict muscle soreness | .66 |
| | 8 Predict lack of sleep effects | .39 |
| | 11 Predict energy level | .61 |
| | 12 Predict quality of sleep | .60 |
| | 15 Predict sleep needs | .41 |
| | 16 Exercise and energy level | .33 |
| Factor 3: Sleep–Wake Cycle | | |
| | 7 Fatigue of hunger versus sleepiness | .35 |
| | 8 Predict lack of sleep effects | .44 |
| | 9 Activity cycle in day | .59 |
| | 15 Predict sleep needs | .50 |
| | 17 Timing of sleep | .71 |
| | 18 Reaction to hunger | .59 |
| Factor 4: Onset of Illness | | |
| | 5 Predict the flu | .69 |
| | 6 Detect fever | .80 |
| | 7 Fatigue of hunger versus sleepiness | .49 |
| | 10 Seasonal rhythms | .36 |
| *Cross-Validation Sample*[b] | | |
| Factor 3: Note Response or Changes in Body Process | | |
| | 1 Reaction to food types | .80 |
| | 4 Food and energy level | .69 |
| | 13 Reaction to fatigue | .38 |
| | 14 Reaction to weather | .44 |
| | 16 Exercise and energy level | .54 |
| | 18 Reaction to hunger | .33 |
| Factor 1: Sleep–Wake Cycle | | |
| | 7 Fatigue of hunger versus sleepiness | .63 |
| | 8 Predict lack of sleep effects | .71 |
| | 9 Activity cycle in day | .67 |
| | 13 Reaction to fatigue | .39 |
| | 18 Reaction to hunger | .46 |
| | 15 Predict sleep needs | .32 |
| | 17 Timing of sleep | .31 |

(*Continued*)





TABLE 4 (*Continued*)

| Item | | Factor Loading |
|---|---|---|
| Factor 2: Predict Body Reaction | | |
| | 11 Predict energy level | .63 |
| | 12 Predict quality of sleep | .76 |
| | 14 Reaction to weather | .49 |
| | 15 Predict sleep needs | .60 |
| | 16 Exercise and energy level | .41 |
| | 17 Timing of sleep | .33 |
| Factor 4: Fitness | | |
| | 2 Predict bruise | .76 |
| | 3 Predict muscle soreness | .76 |
| | 17 Timing of sleep | .39 |
| Factor 5: Onset of Illness | | |
| | 5 Predict the flu | .79 |
| | 6 Detect fever | .81 |
| Factor 6: Body Patterns | | |
| | 10 Seasonal rhythms | .88 |
| | 18 Reaction to hunger | −.32 |

[a]$N = 794$. [b]$N = 450$.

Consciousness subscale reflects the tendency for the individual to attend to one's own inner thoughts and feelings.

2. The Private Body Consciousness subscale and Public Body Consciousness subscale of the Body Consciousness Questionnaire (Miller et al., 1981). The 5-item Private Body Consciousness subscale is intended to measure sensitivity to internal states, whereas the 7-item Public Body Consciousness subscale taps attentiveness to social presentation of the body.
3. The Eysenck Personality Inventory (EPI; H. J. Eysenck & S. B. G. Eysenck, 1963; Gale & Edwards, 1986; Morris, 1979). The EPI is a 57-item scale constructed to measure two orthogonal dimensions of personality: extraversion–introversion and neuroticism–stability. People who score high on the EPI Extraversion scale express both attitudinal and behavioral preferences for environmental and social stimulation, whereas those who score low tend to be quiet and introspective. The second major dimension of personality tapped by the EPI, neuroticism, pertains to adjustment, anxiety proneness, and emotional instability. The EPI also contains a scale sensitive to response patterns that reflect overconcern with social desirability, the 9-item Social Desirability (Lie) scale.
4. The Body Esteem Scale (BES; Franzoi & Herzog, 1986; Franzoi & Shields, 1984), a 35-item scale that measures different dimensions of body satisfaction in young adults, three dimensions each for women and for men. For women, body esteem consists of attitudes toward sexual attractiveness, weight, and physical condition; for men, attitudes toward physical attrac-

tiveness, upper body strength, and physical condition comprise body esteem.

5. The Rosenberg Self-Esteem Scale (Robinson & Shaver, 1973; Rosenberg, 1965), a 10-item scale that measures feelings of general self-worth.
6. The Pennebaker Inventory of Limbic Languidness (PILL; Pennebaker, 1982), a 54-item symptom checklist that is an index of the frequency with which various symptoms of illness are experienced.
7. A short version (14 items) of Scale 1 (Hypochondriasis) of the MMPI (Miller et al., 1981). Scale 1 measures the tendency to interpret normal physical signs and sensations as abnormal (i.e., as precursors of disease).
8. The Trait Anxiety Inventory (A–Trait), a 20-item subscale of the larger 40-item State–Trait Anxiety Inventory (STAI; Spielberger, Gorsuch, & Lushene, 1970). The Trait Anxiety Inventory measures the tendency to respond to situations perceived as threatening with elevations in anxiety intensity.

Three aspects of convergent and discriminant validity were assessed using these scales. First, because the BAQ is intended to measure awareness of normal body processes, the high scorer on the BAQ should not resemble the person who tends to report symptoms of illness independent of actual bodily dysfunction or the person who tends to have many bodily complaints. Thus, the discriminant validity of the BAQ would be established at least partially by demonstrating the independence of BAQ scores from symptom reporting or its correlates (Pennebaker, 1982; Schwartz, Davidson, & Goleman, 1978). The BAQ should, therefore, be unrelated to the PILL, the modified Scale 1 of the MMPI, the EPI Neuroticism scale, the Rosenberg Self-Esteem Scale, and the Trait Anxiety Inventory. Whereas symptom reporting involves a negative self-image, awareness of normal body processes is hindered by low self-esteem. The BAQ's convergent validity is supported by evidence of a positive relationship with body esteem as measured by the BES.

Second, attentiveness to normal bodily processes requires that the individual have a disposition to focus attention toward the self as well as to introspect. Convergent validity of the BAQ would thus be demonstrated by its positive correlation with scores on the Public and Private Self-Consciousness subscales and Public and Private Body Consciousness subscales. People who score high on the EPI Extraversion scale express both attitudinal and behavioral preferences for environmental and social stimulation, whereas those who score low tend to be quiet and introspective. Discriminant validity would be demonstrated by a negative relationship between the BAQ and the Extraversion scale.

Third, in order to rule out the possibility that level of body awareness is a function of subjects' desire to provide what they perceive as the desirable or healthy response, there should be no correlation between the BAQ and a measure of the tendency to respond in the socially valued manner. The EPI Lie scale is sensitive to response patterns that reflect overconcern with social desirability and, so, should be uncorrelated with the BAQ.



## Results

Both the expected and the obtained correlations between the BAQ and the 14 validity measures for women and for men are listed in Table 5. Eleven of the 14 correlations were in the expected direction for men, whereas 9 were in the expected direction predicted for women.

## Comparison of Known Groups

Discriminant validity was further tested by comparing BAQ scores obtained from samples of two populations hypothesized to differ quantitatively in attentiveness to normal body processes. In the case of the BAQ, we reasoned that the capacity to attend to normal body processes should be greater in people whose livelihood depends on accurate assessment of bodily state. We identified aerobics instructors as a group of individuals who, in order to stay employed, maintain their health in part by being attentive to indicators of injury or illness.

TABLE 5
Correlations Between the BAQ and Validity Measures

| | *Women* | | *Men* | |
|---|---|---|---|---|
| *Test* | *r* | *n* | *r* | *n* |
| Body Esteem Scale | | | | |
| Sexual Attractiveness | .14 | 73 | | |
| Weight Concern | .15 | 73 | | |
| Physical Condition | .23* | 73 | .32* | 36 |
| Physical Attractiveness | | | .34* | 36 |
| Upper Body Strength | | | .29* | 36 |
| EPI | | | | |
| Extraversion | .35** | 73 | −.06 | 36 |
| Neuroticism | −.13 | 73 | −.15 | 36 |
| Social Desirability | −.10 | 73 | −.07 | 36 |
| Self-Consciousness Inventory | | | | |
| Private Self-Consciousness | .20* | 86 | .25* | 55 |
| Public Self-Consciousness | .05 | 86 | .15 | 55 |
| Body Consciousness Questionnaire | | | | |
| Public Body Consciousness | .07 | 86 | .34* | 55 |
| Private Body Consciousness | .48** | 68 | .66** | 42 |
| Rosenberg Self-Esteem Scale | .02 | 63 | .16 | 47 |
| Trait Anxiety Scale | −.01 | 63 | −.15 | 47 |
| PILL | −.01 | 64 | .28* | 38 |
| MMPI Hypochondriasis | .12 | 63 | .10 | 47 |

*$p \leq .05$ to .01. **$p \leq .005$ to .001.

Aerobics instructors need to be able to identify what constitutes a healthy response, accurately assess the severity of strain or injury in themselves, and avoid the onset of physical "burnout."

The BAQ was administered to 30 female aerobics instructors enrolled in a class concerned with aerobics training techniques. A comparison sample of 41 women of the same age range as the aerobics instructors was drawn from the cross-validation sample of nonstudent adults. (The discrepancy in *n* is due to the fact that the comparison sample was an intact subsample of female nonstudents.)

As predicted, the aerobics instructors ($M = 93.8$) scored significantly higher than the comparison group ($M = 87.5$) on the BAQ, $t(69) = 1.80$, $p = .038$.

## GENERAL DISCUSSION

The BAQ is a reliable instrument for measuring self-reported attentiveness to normal body processes. There is evidence of its convergent and discriminant validity as well as a stable factor structure. The scale was developed from responses of a fairly heterogeneous adult sample, is not correlated with age, has acceptable test–retest reliability, and is suitable to use with both student and nonstudent populations. Although developed and tested on a predominantly White population, the scale does not include items that are age, sex, race, or habit specific and so should prove to be valid for use with other healthy adult samples.

Although the scale was developed from the combined responses of female and male respondents and is equally reliable for both sexes, consistent sex-related differences in mean BAQ scores were obtained for both the reliability and cross-validation samples in both student and nonstudent populations. In addition, slightly different patterns of correlations between the BAQ and other personality measures were obtained for each sex. These patterns are outlined in the sections on the convergent and discriminant validity of the BAQ.

### Factor Structure

A coefficient of concordance was computed between each of the four factors that were similar in the reliability and cross-validation samples. The BAQ was postulated to be a multidimensional scale, but factor analysis was not used to construct it, so factor order and number were not expected to be identical in the two samples. Concordance coefficients were .69 for Note Response or Changes in Body Process, .79 for Predict Body Reaction, .87 for Sleep–Wake Cycle, and .84 for Onset of Illness.

The interpretation of the concordance coefficients is loosely analogous to that of correlation coefficients. The obtained coefficients of concordance are high enough to reflect a fairly stable factor structure. The underlying structure of the BAQ is thus described by four factors: Note Response or Changes in Body Process, Predict Body Reaction, Sleep–Wake Cycle, and Onset of Illness. The fact that the factors do not follow the same order in the two samples and that splitting of factors occurs (i.e., Factors 4 and 6 of the cross-validation sample seem to be partial splits of Factors 2 and 3 of the reliability sample) are not particularly problematic because both are common occurrences when dealing with large sample sizes.



### Demonstration of Discriminant Validity

We had predicted that discriminant validity of the BAQ would be established at least partially by demonstrating the independence of BAQ scores from symptom reporting, the correlates of symptom reporting (trait anxiety, low self-esteem, and neuroticism), and hypochondriasis. BAQ scores should, therefore, be unrelated to the PILL, the modified Scale 1 of the MMPI, the EPI Neuroticism scale, the Rosenberg Self-Esteem Scale, and the Trait Anxiety Inventory.

For women, there was no relationship between the BAQ and any of these measures; for men, the only exception was a significant positive correlation with the PILL. Similarly, discriminant validity would be demonstrated by a negative relationship between the BAQ and the EPI Extraversion scale. In fact, no relationship was found for men, and, contrary to predictions, a significant positive correlation was obtained for women.

Although the overall pattern suggests independence of body awareness as measured by the BAQ from the disposition to report symptoms, there was one exception to the predicted pattern for each sex. There does not appear to be anything inherent in either the PILL or the EPI extraversion scale that would result in a sex-specific relationship with the BAQ.

The BAQ's discriminant validity was further demonstrated by the significant difference in BAQ scores of two groups expected to exhibit different levels of attentiveness to normal body processes. Aerobics instructors and nonstudent women drawn from the general population, as predicted, differed in BAQ scores, with aerobics instructors manifesting a substantially higher self-reported body awareness.

### Demonstration of Convergent Validity

We predicted that convergent validity of the BAQ would be demonstrated by its positive correlation with scores on the Public and Private Self-Consciousness subscales and Public and Private Body Consciousness subscales. For both women and men, private aspects of self-consciousness and body consciousness were positively correlated with the BAQ, but a consistent relationship with public aspects of body and self-consciousness was not observed. For men, there was a significant positive relationship with Public Body Consciousness and a small positive correlation with Public Self-Consciousness, whereas neither of

these measures was correlated with the BAQ for women. Similarly, we anticipated evidence of a positive relationship between the BAQ and body esteem as measured by the BES; significant positive correlations were obtained for the three Body Esteem subscales for men and for one of the three Body Esteem subscales for women.

This pattern of results suggests that for women, the BAQ is positively related to indices of a tendency to be introspective, whereas for men, BAQ scores appear to be related to a general concern with the body, both in public self-presentation and in its private experience. Such an interpretation of men's BAQ scores could account for the unanticipated positive correlation between the PILL and BAQ for men: Although the symptom checklist was related to men's BAQ scores, no correlates of symptom reporting were related to their BAQ scores.

Overall, these results offer good preliminary evidence of the convergent and discriminant validity of the BAQ. Additional tests, particularly the identification of groups that, on the basis of independent evidence, are known to differ in awareness of normal bodily processes will provide valuable additional validation.

Further investigation of the degree to which the sexes differ in the reported extent of body awareness is also needed. Such research may help to explain sex-related differences that have been found in symptom reporting. Pennebaker (1982) reported, for example, that in the U.S. women both report and experience more symptoms of illness than men. Our findings with the BAQ suggest that body awareness may be one variable contributing to sex-related differences in attentiveness to symptoms.

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