Chapter XLVII
The Aggression Questionnaire

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BACKGROUND

We describe two short-form versions of the self-report aggression questionnaire initially developed by Buss and Perry (1992). Often referred to as the Buss-Perry aggression questionnaire (BPAQ), the original inventory consists of 29 items that measure four aspects of trait aggressiveness—anger, hostility, verbal- and physical-aggression—that are typically used both individually and/or combined to create an overall aggressiveness index. The BPAQ is the successor of the Buss-Durkee hostility inventory (Buss & Durkee, 1957).

Perhaps more appropriate for Internet-based research are the AQ-12 and AQ-15 short forms derived from two different efforts to refine the BPAQ. One effort resulted in the AQ-12 (Bryant & Smith, 2001, p. 150), which uses 12 of the original 29 AQ items. The other effort yielded the AQ-15 by drawing from a 34-item AQ revision by the same authors (Buss & Warren, 2000, pp. 13, 65), and also from the AQ-12.

Comparing the AQ-12 and AQ-15 reveals almost identical items for the anger, hostility, verbal- and physical-aggression subscales. The primary difference is that the AQ-15 features an additional three-item subscale that assesses indirect aggression. Respondents typically rate items on both inventories using a Likert-type scale. Both forms can be used with adult/adolescent and normal/abnormal populations. For children, the AQ-15 may be preferable because it has a third-grade readability level. Research has shown both inventories to be quite reliable and valid measures of aggressive tendencies in individuals.

From a conceptual standpoint, anger represents the affective component of aggressiveness, hostility the cognitive component, and verbal-, physical- and indirect-aggression represent the instrumental components (Buss & Perry, 1992; Buss & Warren, 2000). As such, the anger subscales of the AQ-12 and AQ-15 focus on physiological arousal, a sense of control and preparation for aggression, while the hostility subscales tap cognitions related to ill will, injustice, bitterness, social alienation, and paranoia (Bryant & Smith, 2001; Buss & Perry, 1992; Buss & Warren, 2000). The verbal- and physical-aggression subscales pertain to acts intended to cause harm or hurt through quarrelsome and hostile speech or physical force. Finally,

the indirect aggression subscale (AQ-15 only) measures the tendency to aggress without direct confrontation (cf. Archer & Coyne, 2005).

RELIABILITY

Although fairly new developments, both the AQ-12 and AQ-15 have been subject to several validation studies in recent years that generally indicate acceptable levels of internal consistency reliability (i.e., Cronbach's Alpha). However, we presently do not know of any studies reporting test-retest reliabilities for the two inventories.

AQ-12. Regarding the AQ-12, Bryant and Smith (2001) report internal reliability estimates from four samples of American (2 samples), British, and Canadian undergraduate students (total $n = 984$). Reliability estimates ranged from .71 to .76 for anger, from .70 to .75 for hostility, from .73 to .83 for verbal aggression, and from .79 to .80 for physical aggression (pp. 155, 162). Because Cronbach's Alpha is sensitive to the number of items included in a given scale, these authors also calculate adjusted Alpha coefficients of .88 to .92 for the four subscales (p. 163) using the Spearman-Brown prophecy formula (cf. Shevlin, Miles, Davies, & Walker, 2000). Alpha values for an overall aggressiveness score were not provided (see remark under *Results*).

Slightly lower reliability coefficients emerge from a study by Tremblay and Ewart (2005) involving four samples of Canadian undergraduate students (total $n = 246$). Here, estimates were .66 for anger, .68 for hostility, .71 and .75 for verbal- and physical-aggression, respectively, plus .78 for the overall aggressiveness score (p. 341). Based on their study results, the authors conclude that "one can safely use the refined AQ scales without much reduction in internal consistency" (p. 344).

AQ-15. For the AQ-15, Buss and Warren (2000, p. 65) report Alpha coefficients of .63 for anger, .72 for hostility, .74 for verbal aggression, .80 for physical aggression, and .62 for indirect-aggression, plus .90 for the total aggression score for a diverse sample of 2,138 Americans (for details see pp. 30-36). The reliability estimate for the total score from Buss' and Warren's predominantly Caucasian sample (72%) converges with the Alpha coefficient of .85 and .89 reported for two Asian samples ($n = 227$ and $n = 370$) collected by Ang (2005) and Ang and Yusof (2005), respectively, in which the majority of students identified themselves as either Chinese (77% and 84%) or Indian (13% and 9%).

VALIDITY

Research shows substantial evidence for construct, convergent, criterion, and discriminant validity for the AQ-12, while the evidence for the AQ-15 is less abundant due to a lower number of studies having used it so far.

AQ-12. While developing the AQ-12, Bryant and Smith (2001) were careful to provide copious evidence regarding the short form's validity using multiple samples and advanced statistical analyses. These efforts appear to have been fruitful. Specifically, Tremblay and Ewart (2005) conclude from their own confirmatory factor analyses "that the refined [AQ-12] scales with their reduced number of items do not suffer a large reduction in construct validity. In some cases they perform as well as the original AQ scales or better" (p. 342). Moreover, these authors present evidence for criterion-related validity that shows different correlational patterns between AQ-12 subscales and various criteria, such as five-factor personality dimensions and alcohol-related individual differences, in a sample involving Canadian undergraduates.

AQ-15. Evidence for criterion validity comes from a study that used a cut-off score on the AQ-15 to group Asian students into an aggressive and a nonaggressive group, and found higher narcissism scores for aggressive students (medium effect size; Ang & Yusof, 2005). Ang (2005) provides evidence for convergent and discriminant validity