

NAS-PI

MANUAL

# The Novaco Anger Scale and Provocation Inventory

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## INTRODUCTION

The Novaco Anger Scale and Provocation Inventory (NAS-PI) is a two-part test designed to assess anger as a problem of psychological functioning and physical health and to assess therapeutic change. It was initially developed in conjunction with the MacArthur Foundation Network on Mental Health and Law (Novaco, 1994). Developed and standardized with both community and clinical populations, it is intended to be used as a measurement tool for research, individual assessment, and outcome evaluation.

Anger is a normal emotion that has considerable adaptive value for coping with life's adversities. Anger can facilitate perseverance in the face of frustration or injustice, and it can mobilize psychological resources to energize behaviors that take corrective action. The capacity for anger is a survival mechanism. It provides for personal resilience, it is a guardian of self-esteem, and it potentiates the ability to redress grievances and to boost determination to overcome obstacles to personal happiness. These important adaptive functions served by anger are, however, offset by the role of anger in activating aggressive behavior, by its involvement in stress-related health problems, by its potential to damage important social relationships, and by its entanglement with other distressed emotions, such as sadness, fear, and disappointment.

Anger is an important subject for mental health and social service professionals who work in community, hospital, and school settings, not only because it is a significant activator of violent behavior, but also because it is evoked by many stress-inducing circumstances, such as work pressures, family hardships, and traumatic experiences. Since the arousal of anger typically interferes with information processing, it detracts from prudent thought and considerate action. Thus, anger typically needs to be regulated in order to maintain efficient functioning and problem solving.

Across a wide range of clinical disorders, anger has been found to be a significant feature meriting both assessment and treatment. The central problematic characteristic of anger in the context of clinical conditions is that it is "dysregulated" so that its activation, expression, and effects occur without appropriate controls. Unregulated anger has been found to be associated with physical and psychological health impairments. In the realm of physical health, chronic anger reactivity and anger suppression have been established as having detrimental effects on the cardiovascular system that are related to mortality. With regard to psychological well-being, anger occurs in conjunction with a wide range of psychiatrically classified disorders, including a variety of impulse control dysfunctions, mood

disorders, personality disorders, and forms of schizophrenia, especially paranoid schizophrenia. The activation of anger has long been recognized as a feature of clinical disorders that result from trauma, such as dissociative disorders, brain-damage syndromes, and especially posttraumatic stress disorder. Anger also appears in mental state disturbances produced by general medical conditions, such as dementia, substance abuse disorders, and neurological dysfunctions resulting from perinatal difficulties.

Recurrent anger, often a product of troubled life histories, is commonly targeted for change by mental health and social service professionals. In providing interventions for anger as a problem condition, human service professionals seek to evaluate whether those intervention efforts have produced beneficial results. Because the disposition to become angry is often ingrained in a dysfunctional style of dealing with life's adversities, its utility can render it resistant to treatment. Assessing the degree of change in anger disposition is an important task for those concerned with providing care for people with anger and aggression problems.

### General Description

The NAS-PI is a two-part, self-report questionnaire that yields the six scores listed in Table 1. The Novaco Anger Scale (NAS) contains 60 items that can be completed in approximately 15 minutes. NAS items focus on how an individual experiences anger. The NAS yields five scores—Cognitive (COG), Arousal (ARO), Behavioral (BEH), and Anger Regulation (REG) subscale scores, and a NAS Total score. The Provocation Inventory (PI) contains 25 items that can be completed in 10 minutes or less. PI items focus on the kinds of situations that lead to anger in five content areas—disrespectful treatment, unfairness, frustration, annoying traits of others, and irritations—to produce a single Total PI score. Whenever possible, the two parts of the questionnaire should be administered together. They can be administered separately when time is at a premium or respondent fatigue is of concern. The purpose of an assessment may also dictate a specific focus on either differentiated components of anger disposition (NAS) or on anger reactivity to different situations of provocation (PI).

The NAS and the PI were standardized on an age-stratified sample of 1,546 persons, ages 9 to 84. Separate norms are provided for preadolescents/adolescents (ages 9 to 18) and adults (ages 19 and older). The instrument was

**Table 1**  
**NAS-PI Scores**

<b>Novaco Anger Scale</b>
Cognitive (COG)
Arousal (ARO)
Behavior (BEH)
Anger Regulation (REG)
NAS Total
<b>Provocation Inventory</b>
PI Total

developed for use with both normal and clinical samples, and it can be used with persons who are mentally disordered or developmentally disabled. (Items may need to be read to those in the latter two groups.) It was written so that it could be read by someone with elementary (fourth grade) reading ability. The response format for the NAS is a 3-point scale with response options of 1 = *Never true*, 2 = *Sometimes true*, and 3 = *Always true*. This response format was developed for the NAS to maintain the simplicity of True/False endorsement, while providing greater variability in responses than can be achieved with dichotomous responses. For the PI, the response scale is a rating of the level of anger experienced in a particular situation, ranging from 1 = *Not at all angry* to 4 = *Very angry*.

The NAS-PI has consistently been found to have good reliability across many different samples. Internal reliability estimates in the standardization sample were .94 for the NAS Total score and .95 for the PI Total score. For the NAS subscales, reliability estimates range from .76 to .89, with a median value of .83. Validity work has demonstrated that NAS-PI scores have substantial correlations in expected directions with scores on other measures of anger and hostility, observers' ratings of angry behaviors, the occurrence of violent behavior, and successful completion of anger management interventions. The psychometric properties of the NAS-PI are presented in detail in chapter 5 of this manual.

### Principles of Use

To obtain a meaningful assessment of anger, a number of general principles should be kept in mind. First, like all psychological constructs, anger is an abstraction that has many concrete or observable referents and many ways of being measured, none of which constitutes a "pure" index of anger. Thus, accuracy of assessment is enhanced by the use of a variety of measurement procedures, seeking convergence or triangulation across different types of measures. The NAS-PI is designed to measure anger disposition, assessing trait-like aspects of *anger responding* or *anger response readiness*. It is thus different from behavioral measures of anger reactions to situational provocation and from measures of the amount of anger an individual is experiencing at the time of the assessment. When formulating interpretations of NAS-PI results, therefore, information from other anger assessment procedures, such as anger ratings given by trained observers, clinical interviews, or measurements of physiological arousal, should be considered.

Another issue to consider when using the NAS-PI is that, because of the reactive nature of anger and its sensitivity to a

wide range of situational factors, it is best to assess anger at different points in time, just as one might want to obtain blood pressure and heart rate measurements at different times and locations to get the most complete picture of cardiovascular functioning. As well, the time and test situation in which the anger measures are obtained should be selected with care. Attention should be given to minimizing contextual factors that are likely to interfere with obtaining accurate results. For example, if a person believes that reporting high levels of anger will result in undesirable consequences (such as disapproval, negative reports, loss of privileges, or increased detention), it is very likely that the level of anger reported will be correspondingly attenuated.

High scores on self-report measures of anger are generally less ambiguous than low scores. There are many circumstances in which a person might report a lower level of anger than is valid for them, but there are few circumstances in which a person would want to report a higher level of anger than is true.

Importantly, it should also be recognized that assessment scores for any particular person are meaningful primarily in relation to the average scores for a comparable population and in relation to that person's own previous scores. Users of the NAS-PI should take these general principles into account.

The NAS-PI can be administered to an individual or a group by a trained technician. As described in chapter 2, rapport should be established with the respondent, and efforts should be made to insure trust by providing information about the purpose of the assessment and the opportunity for the respondent to ask questions about the instrument or any of its items. Interpretation of test results should be undertaken only by individuals with supervised clinical training in the use of psychological tests.

### Assessing Anger and Changes in Anger by Self Report

The psychosocial symbolism of anger and its significance for social labeling raise the importance of attending to the problem of reactivity or distorted responding as a key validity issue in assessing anger by self report. This issue is especially pertinent to anger assessment done in forensic settings, but it is also relevant to any other assessment context where admitting to the experience of anger has a perceived negative payoff. Anger can easily be equated by the respondent with being out of control or being a bad person. When respondents perceive that their responses to NAS-PI items may reflect badly on them as individuals, their self-report assessment results might be inaccurate because they could be masking a real anger disposition.

In addition, accurate self-report assessments of anger can be impeded by limitations in a person's capacity for self-monitoring. People who have serious anger problems are often not very good observers of their own feelings and behavior. To a large extent, proper anger treatment is precisely about increasing the person's capacity for self-monitoring. For this reason, anger levels as measured by self-report can actually increase as a function of the improved self-awareness that is gained through successful interventions. When evaluating changes in anger by self-report as a clinical outcome, it is necessary to take this into account. Although these issues are relevant to self-report assessments of most inner psychological experiences, they are particularly relevant to anger assessment. They are discussed at greater length in chapters 2 and 3 of this manual.