

# BARRON-WELSH ART SCALE (BWAS)

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## BARRON-WELSH ART SCALE (BWAS)

**Primary Disciplinary Field(s):** Psychology, Psychometrics, Creativity Research

### 1. Core Definition

The Barron-Welsh Art Scale (BWAS) is a specialized psychometric instrument designed as an 86-item, non-verbal assessment test. Its primary function is to gauge an individual's aesthetic preferences for specific visual configurations, using these preferences as an indirect index of fundamental personality traits, most notably **creativity** and cognitive complexity. Unlike traditional intelligence or personality questionnaires that rely on verbal responses or self-reports, the BWAS minimizes potential language bias by requiring participants to simply indicate their subjective like or dislike for a series of abstract, black-and-white figures.

The scale operates on the premise that aesthetic judgment is not merely a matter of learned taste, but rather a reflection of deeper psychological structure, particularly the individual's tolerance for ambiguity, desire for cognitive challenge, and openness to novel experiences. The BWAS specifically measures the preference continuum between simple, symmetrical, and conventional designs versus complex, asymmetrical, and highly abstract drawings. A score derived from this pattern of preference is then interpreted as a quantifiable measure of the subject's disposition toward artistic and non-artistic inclinations, which has been historically correlated with various measures of real-world creative achievement across different domains.

Because the test is entirely visual and requires only a binary choice (like or dislike) for each of the 86 items, it offers a relatively rapid and culture-reduced method for assessment, making it valuable in cross-cultural psychological studies and large-scale demographic research where verbal facility might vary. The resulting score, often referred to as the "Aesthetic Preference Index," allows researchers to place subjects along a continuum ranging from a preference for structured simplicity to an acceptance and appreciation of highly dynamic and challenging visual stimuli.

### 2. Etymology and Historical Development

The Barron-Welsh Art Scale was first developed and published in 1952 by two influential American psychologists, Frank Barron (1922-2002) and George Welsh (1918-1990). Both researchers were associated with the Institute of Personality Assessment and Research (IPAR) at the University of California, Berkeley, a seminal institution dedicated to the rigorous empirical study of personality and creativity.

The genesis of the BWAS lay in the IPAR's broader mission during the mid-20th century, which sought to identify and understand the psychological characteristics distinguishing highly creative individuals--such as successful writers, architects, and scientists--from the general population.

Traditional psychometrics struggled to capture the non-rational, implicit dimensions of creative personality. Barron and Welsh recognized the need for an instrument that could tap into these underlying structures without directly asking subjects about their own creativity or relying on explicit artistic knowledge.

The development process involved an extensive empirical selection of visual stimuli. The initial pool of figures was narrowed down based on their ability to differentiate between groups of individuals who had been independently judged as highly creative versus those deemed less creative. This rigorous validation process ensured that the finalized 86 items were maximally effective in serving as an index of **creative potential**, grounding the instrument firmly in empirical observation rather than purely theoretical speculation regarding aesthetics. Over the subsequent decades, the BWAS became a cornerstone tool in creativity research, bridging the study of personality traits with visual perception and aesthetic theory.

### 3. Key Concepts and Components

The structure and operational mechanism of the BWAS rely on several key psychological and aesthetic principles, formalized into its design and scoring system. These components define what the scale measures and how that measurement relates back to personality structure.

**The Stimuli Set (86 Figures):** The core of the BWAS consists of 86 distinct black-and-white drawings. These drawings vary dramatically in their fundamental visual characteristics. They range from extremely simple, highly regular, and symmetrical geometric shapes (e.g., squares, circles, basic repetitive patterns) to complex, abstract, asymmetrical, and often dynamically ambiguous configurations. The juxtaposition of these varied stimuli forces the participant to make an immediate, instinctive aesthetic judgment, thereby minimizing conscious rationalization.

**Preference for Complexity vs. Simplicity:** The scale is fundamentally predicated on the psychological concept of **complexity preference**. The scores derived from the BWAS correlate the degree to which an individual prefers the complex, ambiguous figures over the simple, regular figures. Research by Barron and others suggested that highly creative individuals tend to exhibit a strong preference for visual complexity, demonstrating a greater capacity to tolerate and integrate disorder, asymmetry, and tension in their perceptual field.

**Non-Verbal Assessment:** A critical design feature is its non-verbal nature. By reducing the test to a purely visual task, the BWAS effectively bypasses linguistic, cultural, and educational differences that often confound traditional psychological assessments. This focus allows the scale to probe deeper, universal aspects of cognitive style and aesthetic orientation that are less susceptible to superficial social desirability biases.

### 4. Administration and Psychometrics

The administration of the BWAS is standardized and highly straightforward, contributing to its ease of use in diverse research settings. Psychometrically, the scale offers a robust framework for interpreting the resulting preference patterns.

The test involves presenting the participant with the 86 figures sequentially. For each figure, the participant is instructed to mark whether they "Like" or "Dislike" the design. There are typically no time limits imposed, but the entire process is usually completed quickly, often within 15 to 20 minutes. The simplicity of the task belies the complexity of the interpretation, which hinges on the differential scoring of two main categories of figures.

The scoring system differentiates between two primary indices:

**The Original A-Score (Aesthetic Preference):** This score is calculated based on the number of complex, asymmetrical figures the subject marks as "Liked." A high A-Score indicates a preference for complex, dynamic, and potentially challenging visual arrangements. This high score is the classic indicator traditionally associated with creative potential, openness to experience, and a certain degree of psychological independence.

**The R-Score (Rejection of Simplicity):** Conversely, the R-Score measures the number of simple, symmetrical figures that the subject marks as "Disliked." While often correlated with the A-Score, measuring rejection of simplicity provides additional insight into the participant's cognitive style, suggesting an active avoidance of the common or conventional, which is often characteristic of innovative thought processes.

Reliability studies have generally supported the internal consistency of the BWAS, demonstrating that the scale consistently measures the underlying construct of aesthetic preference. Validity studies, particularly those conducted at IPAR, showed strong criterion validity, where high scores on the BWAS successfully predicted external measures of creativity, such as independent assessments of artistic production or ratings of intellectual originality.

## 5. Significance and Impact in Creativity Research

The BWAS holds significant historical and methodological importance, particularly within the field of creativity studies. Its development marked a crucial shift toward understanding creativity as a measurable personality orientation rather than solely an output skill.

One of the most profound impacts of the BWAS was its application in identifying a specific personality profile associated with creative achievement. Researchers consistently found that individuals scoring high on the A-scale tended to be more autonomous, self-accepting, cognitively flexible, and willing to embrace tension and instability--traits essential for groundbreaking work in any field. The scale helped to solidify the psychological understanding that **aesthetic judgment** acts as a non-conscious behavioral manifestation of these complex personality structures.

The BWAS has also played a crucial role in validating concepts related to psychological differentiation and cognitive style. High scorers are often seen as possessing a highly differentiated cognitive structure, meaning they are able to perceive and integrate various levels of complexity without experiencing immediate discomfort or resorting to oversimplification. This tolerance for perceptual ambiguity is a strong predictor of intellectual originality and the ability to synthesize disparate ideas--hallmarks of creative genius.

Furthermore, the scale's methodology influenced subsequent non-verbal assessments, encouraging the development of projective and perceptual tests aimed at uncovering subconscious preferences and latent personality traits. Although newer, more specialized tests have emerged, the BWAS remains a foundational instrument frequently referenced in historical reviews of psychometric approaches to creativity.

## 6. Debates and Criticisms

Despite its significant contributions, the Barron-Welsh Art Scale has faced several methodological and conceptual criticisms over the decades, prompting necessary re-evaluations of its universality and relevance in contemporary contexts.

A primary criticism revolves around the definition and scope of the creativity it purports to measure. Critics argue that while the BWAS effectively measures a preference for complexity, this preference may only be one facet of creativity, potentially neglecting other critical components such as divergent thinking, technical skill, or motivational drives. The scale may identify individuals with a certain cognitive style (tolerance for ambiguity) rather than actual creative producers, especially in fields where visual aesthetics are secondary to logical or scientific innovation.

Moreover, the BWAS has been subjected to scrutiny regarding its potential cultural specificity and chronological constraints. While designed to be non-verbal, the visual language of the 86 figures is inherently tied to mid-20th-century Western abstract art and geometric design. As aesthetic trends evolve, some researchers question whether the figures selected in the 1950s retain the same psychological valence or power to differentiate preferences among diverse, modern, and cross-cultural populations. What was considered "complex" or "abstract" in 1952 may be interpreted differently by contemporary subjects exposed to vastly different visual media.

Finally, like many fixed-item psychometric instruments, the BWAS is limited by the static nature of its stimuli. Modern assessment techniques often favor dynamic, computer-administered, or interactive tasks that allow for a greater range of behavioral observation. While still historically relevant, the scale is now often supplemented or replaced by multimodal assessment batteries that provide a more nuanced and comprehensive view of the multifaceted phenomenon of human creativity.

## Further Reading

Frank Barron (Psychologist)

Barron-Welsh Art Scale Summary

Barron, F., & Welsh, G. S. (1952). The Barron-Welsh Art Scale. Consulting Psychologists Press.

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