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OPENNESS TO EXPERIENCE AS A BASIC DIMENSION OF PERSONALITY*

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ABSTRACT

In this article I trace some of the historic roots of the concept of Openness to Experience and provide data on the convergent and discriminant validity of measures of Openness in the Revised NEO Personality Inventory (NEO-PI-R). Factor analyses demonstrate that facet scales measuring Openness to Fantasy, Aesthetics, Feelings, Actions, Ideas, and Values covary to define a broad dimension of personality; these scales are weakly and inconsistently related to psychometric measures of intelligence and to self-report measures of Intellectance that emphasize academic ability. I illustrate the construct of Openness with a case study and conclude with suggestions for exploring the role of Openness in understanding cognitive traits, consciousness and mental processes, and the interface between cognition and emotion.

In the Hall of Gems at the Museum of Natural History in New York, I once stood in front of a huge piece of sulfur so yellow I began to cry. I wasn't in the least bit unhappy. Quite the opposite; I felt a rush of pleasure and excitement. The intensity of the color affected my nervous system. At the time, I called the emotion wonder, and thought: Isn't it extraordinary to be alive on a planet where there are yellows such as this?

D. Ackerman, *A Natural History of the Senses* [1, p. 254].

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In the past decade, personality psychology has been revitalized by the rediscovery of the five-factor model [1-4]. The five dimensions of Neuroticism, Extraversion, Openness to Experience, Agreeableness, and Conscientiousness appear to account for the common variance among a vast array of personality scales and trait descriptive adjectives; they have been replicated in self-reports and observer ratings, in men and women, in several different cultures. Agreement across observers has been demonstrated for all five factors [5], and all show longitudinal stability in adulthood for periods ranging up to thirty years [6]. The five-factor model has been used as an organizing framework in reviews of topics ranging from behavior genetics [7] to personality disorders [8] to job performance [9].

Of these five factors, the most controversial [10]—and the most relevant to the study of imagination, cognition, and personality—is Openness to Experience [11, 12]. This dimension corresponds to the Factor V in lexical studies of personality [13, 14], which has also been interpreted as Inquiring Intellect [15], Culture [14], Intellect [13], and Intellectance [16]. In this article I summarize the case for regarding Openness to Experience as a basic factor of personality and illustrate it with a case study. I then suggest ways in which the construct might illuminate such topics as cognitive traits, mental processes, and the structure of consciousness.

THE DISCOVERY OF OPENNESS

Since 1975, Paul Costa and I have conducted research on a set of related traits that we first noticed in analyses of the scales of Cattell's Sixteen Personality Factor Questionnaire [16PF; 17]. Three broad clusters appeared; two of them were the ubiquitous dimensions of Neuroticism and Extraversion, or Anxiety and Exvia, as Cattell called them. The third included scales B, Bright; I, Tender-minded; M. Imaginative; and Q1, Liberal thinking, a combination we interpreted as "openness to both affective and cognitive experiences" [18, p. 568].

We soon discovered many psychometric limitations in the 16PF, and began to measure Openness with Coan's Experience Inventory [19], an instrument derived from the earlier work of Fitzgerald [20], which in turn was based on Scandinavian studies of hypnotic susceptibility [21], Schachtel's concept of "world openness" [22], and Kris's psychoanalytic view of creativity [23]. We modified Coan's scales, eventually developing measures for six aspects, or facets, of Openness to Experience. These became the basis for what is now the Revised NEO Personality Inventory (NEO-PI-R) [24].

In 1983 we began to study the work of Goldberg on the structure of trait adjectives [25, 26] and noted conceptual correspondences between his Factor V, Culture or Intellect, and Openness. Empirical demonstrations of the convergence of these two constructs in both self reports [27] and peer ratings [28] made us among the first converts to the five-factor model.

Our subsequent studies have shown that variations on the construct of Openness have appeared repeatedly in the history of personality assessment. For example, Jung's [29] seminal writings on psychological types led Guilford to develop a measure of Thinking Introversion or Thoughtfulness [30] which is moderately correlated with NEO-PI Openness [12], and led Myers and Briggs to develop a measure of Intuition [31] which is among the strongest correlates of Openness [32].

This brief account illustrates two points: First, it shows that our concept of Openness to Experience had its roots outside the lexical tradition in which the five-factor model was first identified; and second, it shows the pervasiveness of the construct in many different theoretical contexts. These two facts have led us to the conclusion that whereas Intellect is a basic factor of English-language trait adjectives, Openness is a basic dimension of personality itself, imperfectly represented by the lay terms that define Intellect [33].

DEFINITION AND MEASUREMENT OF OPENNESS

Openness has often been confused with other constructs, and a first step in defining it is to articulate some basic distinctions. Although psychologists tend to be open themselves and to value Openness, there is no direct link between Openness and mental health. Closed individuals are as likely to be well-adjusted as are open individuals. As noted, Openness is related to reflectiveness and Guilford's Thinking Introversion, but not to social introversion or extraversion: Open people may be talkative or silent, affectionate or reserved. Although they prefer variety to routine, open people are not necessarily disorganized or low in impulse control. These distinctions are discussed at length elsewhere [11]; I will address the more difficult distinction between Openness and intelligence later in this article.

Openness to Experience is a broad dimension of individual differences with both structural and motivational aspects: "Openness is seen in the breadth, depth, and permeability of consciousness, and in the recurrent need to enlarge and examine experience" [12, p. 2]. The structural aspect of Openness recalls Rokeach's classic conception of dogmatism in terms of compartmentalized beliefs [34], and Hartmann's more recent descriptions of thick and thin boundaries in the mind [35]. The motivational aspect suggests links to Murray's needs for understanding, change, and sentience [36], and to Zuckerman's Experience Seeking [37].

Our measure of Openness, however, is not organized along these two lines. When items measuring a variety of forms and manifestations of Openness are factored, we do not find a Structure factor and a Motivation factor. Instead, factors correspond to specific *areas* to which individuals are relatively open or closed: fantasy, aesthetics, feelings, actions, ideas, and values. Table 1 shows the results of a varimax-rotated factor analysis of the forty-eight Openness items (partialling

Table 1. Analysis of NEO-PI-R Openness Items

	Varimax Rotated Principal Component: Openness to . . .					
Item	O1: Fantasy	O2: Aesthetics	O3: Feelings	O4: Actions	O5: Ideas	O6: Values
O1 1	44					
O1 2	–59					
O1 3	65					
O1 4	–73					
O1 5	67					
O1 6	–61					
O1 7			–31			
O1 8	–55					
O2 1	35	33				
O2 2		–44				
O2 3		–53		–30		
O2 4	38	30				
O2 5		–67				
O2 6		57				
O2 7		71				
O2 8		62				
O3 1			52			
O3 2			–59			
O3 3			50			
O3 4			60			
O3 5			–54			
O3 6			–40			
O3 7			31			
O3 8	38					
O4 1				31	34	
O4 2				–47		
O4 3	–30			–35		
O4 4				37		
O4 5				–58		
O4 6				–55		
O4 7				–45		
O4 8				37		

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Item	O1: Fantasy	O2: Aesthetics	O3: Feelings	O4: Actions	O5: Ideas	O6: Values
O5 1		31			62	
O5 2					66	
O5 3					67	
O5 4		–48			–42	
O5 5		–38			–53	
O5 6		–44			–46	
O5 7		33			58	
O5 8		36			56	
O6 1						59
O6 2						–39
O6 3						–58
O6 4						59
O6 5						–49
O6 6						54
O6 7						–40
O6 8						–62

Note: N = 1,539 men and women [38]. All loadings ≥ ± .30 are given. Items factored after partialling acquiescence, assessed as summed agreement with responses to all NEO-PI-R items (excluding Openness items) without regard to keying.

a measure of acquiescence) in a national sample of over 1,500 men and women [38]. Several of the Ideas items load jointly on the Ideas and the Aesthetics factors, but otherwise the intended structure is generally recovered. This is a fully independent replication of the initial analyses used to select items, and supports the facet model at an item level.

This clear separation of item factors is attributable to the fact that the traits constituting the domain of Openness are rather loosely related. As Trapnell and Wiggins remarked, "The fifth factor of the Big Five model appears to be broader in scope and looser in structure than the other four factors" [39, p. 782]. Certainly this is true in the NEO-PI-R. Table 2 shows the intercorrelations of the six facets in the normative sample [24]; the median correlation is .28, smaller than the median correlations for the other domains, which range from .34 to .47. Yet, as the last column of Table 2 shows, when the six facet scales are analyzed, a single factor has an eigenvalue over 1.0, and all six facets show strong loadings on it.

Table 2. Intercorrelations Among NEO-PI-R Openness Facet Scales

Facet	Openness Facet Scale						General Factor Loading
	O1	O2	O3	O4	O5	O6	
O1: Fantasy		.28	.39	.24	.30	.24	.64
O2: Aesthetics			.39	.34	.46	.13	.71
O3: Feelings				.23	.25	.17	.64
O4: Actions					.31	.28	.62
O5: Ideas						.25	.69
O6: Values							.49
Median:	.28	.34	.25	.28	.30	.24	

Note: N = 500 men, 500 women [24]; all $p < .001$.

Even more revealing is an analysis of the full set of thirty NEO-PI-R facet scales. Two such analyses are shown in Table 3; one for the self-report version, Form S, in the national sample [38] and one for the observer ratings version, Form R [40], using data from the Baltimore Longitudinal Study of Aging (BSLA) [41]. The boxed area shows that all six Openness facets load strongly on an unmistakable Openness factor in both data sets. The Openness factor is very broad, but it is also very robust.

The data most relevant to a conceptual analysis of Openness are correlations with external criteria that can provide a nomological net for the interpretation of the factor. A series of studies in the BLSA provide data [6, 32, 42-44]; further details on the sample, measures, and procedure are reported in the original articles. Table 4 summarizes correlations between the domain and facet scales of Openness and a series of related measures. Some of these other measures—the scale names shown in boldface—have been proposed as alternative measures of the fifth lexical factor: These are scales by Wiggins [39], Goldberg [13], Lorr [45], and Hogan [16]—although it should be noted that Lorr's Autonomy was identified as a measure of this factor by Digman [2], not by Lorr himself. The other scales are empirical correlates.

The first noteworthy feature of Table 4 is that it is covered with asterisks. NEO-PI-R Openness Scales are significantly related to a wide variety of other scales. This applies to each of the facet scales, as well as to their total, and provides further evidence that all six facets belong together in a single domain, because they share many important correlates.

Next, a consideration of the correlations given in boldface—the highest facet correlation of each measure—provides evidence of the discriminant validity of the facet scales. For example, Holland's Artistic Interests [46] is most strongly

Table 3. Factor Analysis of NEO-PI-R Form S and Form R Facet Scales

	Varimax Rotated Principal Component									
	N		E		O		A		C	
NEO-PI-R Facet	S[a]	R[b]	S	R	S	R	S	R	S	R
N1: Anxiety	82	86								
N2: Angry Hostility	68	51					–46	–68		
N3: Depression	80	83								
N4: Self-Consciousness	72	76								
N5: Impulsiveness	55	43								–47
N6: Vulnerability	70	67							–40	–46
E1: Warmth			74	69				48		
E2: Gregariousness			72	84						
E3: Assertiveness			48	50				–40	40	
E4: Activity			51			40			48	42
E5: Excitement Seeking			57	53						
E6: Positive Emotions			73	65						
O1: Fantasy					60	62				
O2: Aesthetics					76	69				
O3: Feelings	41			52	52	46				
O4: Actions					60	52				
O5: Ideas					76	77				
O6: Values					54	57				
A1: Trust							49	75		
A2: Straightforwardness							70	81		
A3: Altruism			48				59	77		
A4: Compliance							74	81		
A5: Modesty							59	78		
A6: Tender-Mindedness							61	70		
C1: Competence									62	74
C2: Order									69	75
C3: Dutifulness									69	76
C4: Achievement Striving									76	75
C5: Self-Discipline									74	82
C6: Deliberation									58	61

[a]Form S.
[b]Form R.

Note: N = 1,539 self-reports for Form S [38], 368 peer and spouse ratings for Form R. All loadings over ±.40 are shown. Decimal points are omitted. Openness factor loadings are boxed.

Table 4. Correlations of NEO-PI Openness Scales with Related Measures

Correlate	Openness Domain Scale	Openness Facet Scale					
		Fantasy	Aesthetics	Feelings	Actions	Ideas	Values
MBTI Intuition (367)	.71***	.44***	**.58*****	.29***	.55***	**.58*****	.35***
IASR Openness[a] (941)	.67***	.42***	.55***	.44***	.32***	**.62*****	.30***
Absorption[b] (48)	.56***	.55***	.52***	**.59*****	.15	.20	.21
PRF Sentience (296)	.55***	.36***	**.56*****	.44***	.31***	.24***	.23***
PRF Understanding (296)	.54***	.14*	.45***	.21***	.34***	**.67*****	.29***
SDS Artistic Interests (298)	.53***	.34***	**.54*****	.30***	.32***	.30***	.12*
SSS Experience Seeking (267)	.53***	.32***	.29***	.25***	.39***	.31***	**.43*****
Goldberg's Intellect[c] **(171)**	.46***	.17**	**.45*****	.33***	.15*	.36***	.26***
GZTS Thoughtfulness (134)	.41***	.25***	.24***	.32***	−.02	**.46*****	.12
ISI Autonomy (115)	.40***	.22*	.28**	.26**	.23*	.30**	.28**
PRF Change (296)	.40***	.19**	.23***	.20***	**.56*****	.27***	.21***
Private Self-consciousness (245)	.30***	.25***	.14*	**.43*****	.00	.20**	.12
SDS Investigative Interests (299)	.25***	.12*	.11	−.04	.10	**.44*****	.18**
HPI Intellectance (124)	.21*	−.01	.23*	−.04	.09	**.47*****	−.03

[a]From J. S. Wiggins, personal communication, 1/12/92.
[b]From [11].
[c]From [49].
*$p < .05$.
**$p < .01$.
***$p < .001$.

Note: *Ns* are given in parentheses. Except as noted, all data are from Baltimore Longitudinal Study of Aging samples. Highest facet correlate of each scale and titles of measures of Factor V are given in boldface. MBTI = Myers-Briggs Type Indicator. IASAR-B5 = Revised Interpersonal Adjective Scales—Big Five Version. PRF = Personality Research Form. SDS = Self-Directed Search. SSS = Sensation Seeking Scales. GZTS = Guilford-Zimmerman Temperament Scales. ISI = Interpersonal Style Inventory. HPI = Hogan Personality Inventory.

correlated with the Aesthetics facet; his Investigative Interests with the Ideas facet. Private self-consciousness [47] is most closely related to Openness to Feelings; Jackson's need for Change [48] is most closely related to Openness to Actions.

Finally, note that the correlates have been arranged in descending order according to their correlation with total Openness. Among these scales, the Sensing-Intuition continuous scale of the MBTI and Wiggins's Openness adjective scale

come closest to measuring the NEO-PI construct of Openness. Goldberg's Intellect scale [49] shows a substantial correlation, .46, but this is lower than several other scales, such as Absorption [50] and Experience Seeking [37], that were not developed as markers of the five-factor model.

At the bottom of the table is the Intellectance scale of the Hogan Personality Inventory (HPI) [16]. As one might expect, this scale shows a substantial correlation—.47—with Openness to Ideas, but it is unrelated to Openness to Fantasy, Feelings, Actions, and Values. HPI Intellectance appears to measure only one facet of the domain of Openness, and Intellectance and Openness should not be regarded as equivalent or interchangeable measures.

Of course, Hogan's Intellectance scale was not intended to measure our construct of Openness to Experience; instead, the homogeneous item clusters, or HICs, that define Intellectance include measures of self-reported academic ability as well as measures of curiosity. When Trapnell and Wiggins factored the Intellectance HICs, they found that these two sets of HICs formed different factors, of which only the Curiosity factor was related to Openness [39].

This leads to a consideration of the relation between Openness and intelligence. Table 5 shows correlations between age-adjusted WAIS-R scores and NEO-PI Openness scales in a sample of sixty-seven BLSA participants aged seventeen to eighty-six. What is most notable here is the general absence of asterisks. Full scale IQ is related only to Openness to Ideas and to Total Openness, and the correlations are modest in magnitude. Intelligence appears to be a sixth dimension of individual differences, only slightly related to Openness [11, 27].

Table 5. Correlations of NEO-PI Openness Scales with WAIS-R Scales

WAIS-R Scale	Openness Domain Scale	Openness Facet Scale					
		Fantasy	Aesthetics	Feelings	Actions	Ideas	Values
Information	.31*	.11	.15	.00	.15	.27*	.33**
Digit Span	.10	−.05	.11	.08	.01	.15	−.01
Vocabulary	.29*	.15	.25*	.11	.15	.22	.20
Arithmetic	.03	−.01	.00	.06	−.03	.17	−.09
Comprehension	.31*	.18	.21	.11	.09	.19	.29*
Similarities	.30*	.09	.27*	.12	.15	.18	.22
Picture Completion	.07	.03	−.07	−.11	.03	.25*	.20
Picture Arrangement	.20	.07	.09	.02	.18	.20	.05
Block Design	.35**	.23	.17	.06	.22	.36**	.14
Object Assembly	.34**	.18	.26*	.11	.29*	.22	.18
Digit Symbol	.20	.14	.05	.17	.09	.16	.12
FULL SCALE	.33**	.18	.23	.11	.19	.33**	.21

Note: $N = 67$ men and women aged seventeen to eighty-six.
*$p < .05$.
**$p < .01$.

It is interesting to note that the largest correlates of total Openness are Block Design and Object Assembly, which, according to Wechsler "seem to get at some sort of creative ability" [51, p. 80]. This observation recalls the origins of the concept of Openness in theories of creativity, a link that was articulated by MacKinnon as early as 1960 in an article summarizing research on creativity done at the Institute of Personality Assessment and Research. More creative individuals, he wrote, tended to be higher in intelligence, but more characteristically, they showed "an openness to their own feelings and emotions, an understanding self-awareness, and wide-ranging interests" [52, p. 377]—all aspects of Openness to Experience.

OPENNESS AND THE SENSES

The five-factor model is intended to guide a comprehensive taxonomy of personality traits. If the fifth factor in the lexical tradition were narrowly construed as Intellect, where would one classify such traits as need for variety [53], sensation seeking [37] and aesthetic reactivity? These traits, that emphasize an interest in sensory rather than intellectual experience, fit well within the broader conception of this factor as Openness. In deepening one's understanding of this dimension, it may be particularly illuminating to attend to these other, non-intellectual traits.

One of the strongest correlates in Table 4 is the need for sentience, defined by Henry Murray as the need

> To seek and find delight in the enjoyment of any . . . sense impressions. To have delicate, sensitive perceptions. To perceive and comment upon the sensuous quality of objects. To remark upon the atmosphere, the temperature, colours in the room, pictures, various sounds and odours. To remember and in the description of events include sensuous details [36, p. 169].

An ingenious experimental demonstration of the link between sensory and cognitive openness was provided by Kaplan and Singer [54], who measured sensory acuity in olfactory, gustatory, tactile, auditory, and visual modalities. In each of the five, subjects who scored low on a measure of dogmatism demonstrated higher levels of acuity. They concluded that "openness to sense impressions apparently runs parallel to openness to ideas" [54, p. 490].

Sentience is openness of a very direct and elemental sort, a literal opening of one's eyes and ears to the world around one. Before the chapters on learning and cognition, introductory psychology texts include chapters on sensation and perception. But anyone who really wishes to understand sentience—and Openness to Experience—might better turn to a different text: Dr. Diane Ackerman's *A Natural History of the Senses* [1]. Here is a book that tells us how perfumers combine five hundred ingredients to create a new fragrance, why women in the American South eat clay, what it must feel like to be burned at the stake. It

chronicles the fate of autumn leaves from their first color to their final decay, and describes the afterimages of icebergs that float in the mind's eye after a day of sailing in the Antarctic.

Murray tells us that people who attend to sensuous details like this are high in the need for sentience, and even a causal reading of *A Natural History of the Senses* suggests that its author, Diane Ackerman, is extremely open to experience. The scope of the book is one clue. It draws on literature and history, experimental psychology, cultural anthropology, popular culture, and personal experience to give us a taste of the senses. The author must have broad interests to pursue so many tangents.

A second, more subtle, clue is found in the structure of the book. This is no encyclopedia of the senses, methodically and mechanically tracing the physiology and psychology, the historic, aesthetic, and economic significance of each of the senses in turn. Instead, it is a loose collection of essays, grouped by sense, and internally arranged in a structure that sometimes seems to be free association. A five-page chapter on "The Hand" begins with a palm reading in upstate New York, and touches insightfully on the cross-cultural use of worry beads; a blind hair stylist from Lancaster, Pennsylvania; the FBI's use of laser technology for reading fingerprints; the introduction of the business handshake with the Industrial Revolution in England; and Rilke's description of Rodin's sculpting of hands. Woven together by the skillful hands of the author, this kaleidoscopic treatment makes the topic constantly engaging; it also demonstrates the "breadth, depth, and permeability of consciousness" that distinguishes Openness.

Finally, Openness can be discerned in the bits of autobiography that appear from time to time in the book. Dr. Ackerman is a professor of literature with five published collections of poems, but she is no staid academic. She has worked on a cattle ranch in New Mexico, tagged monarch butterflies in California, and vacationed in Antarctica. She clearly has a sense of adventure and a willingness to experiment that distinguishes Openness from mere Intellect.

It is therefore perhaps not surprising that when I wrote to her asking if she would be interested in completing a personality questionnaire and serving as an illustration of a psychological construct, she promptly telephoned to say that she found the idea "intriguing." She subsequently completed the NEO-PI-R, still blind, of course, to the particular construct I was interested in.

The resulting profile confirmed my hypothesis. On the facet level, she scored high (with *T*-scores of 64 and 59) on Openness to Ideas and Actions, and very high (with *T*-scores from 70 to 80) on Openness to Fantasy, Aesthetics, Feelings, and Values. With a *T*-score of 82, her cardinal feature was total Openness to Experience. Her NEO-PI-R Interpretive Report began,

> The most distinctive feature of this individual's personality is her standing on the factor of Openness. Very high scorers like her have a strong interest in experience for its own sake. They seek out novelty and variety, and have a

marked preference for complexity. They have a heightened awareness of their own feelings and are perceptive in recognizing the emotions of others. They are very responsive to beauty in art and nature. Their attraction to new ideas and alternative values systems may make them especially tolerant of others, and may lead them to adopt unconventional attitudes. Peers rate such people as imaginative, daring, independent, and creative.

IMPLICATIONS FOR RESEARCH ON IMAGINATION, COGNITION, AND PERSONALITY

Historically, the field of personality psychology has been studded with constructs related to Openness to Experience, including sentience [36], authoritarianism [55], need for variety [53], imaginal processes [56], absorption [50], and thoughtfulness [30]. But it is only in the past decade that it has become clear that all of these apparently diverse constructs are related as facets of the broad domain of Openness. That discovery places research on imagination, consciousness, and artistic processes squarely in the mainstream of contemporary trait psychology. At the same time, it suggests that researchers interested in these topics might exploit recent advances in our understanding of the five-factor model.

Openness and Cognitive Traits

The confusion of Openness with intelligence or other cognitive abilities continues to this day [57], despite repeated demonstrations that the two are separable and separate dimensions. This does not mean that they are unrelated, but it does mean that both should be measured in research on personality and cognition. We know that some aspects of intelligence, such as divergent thinking abilities, show moderately strong links to Openness [58], whereas others, such as arithmetic abilities, are unrelated (see Table 5). More detailed and theoretically grounded analyses of these relations are warranted.

A closely related field is the study of cognitive styles. Charlton and Bakan reported significant correlations between cognitive complexity and creativity, but they also noted that the literature is inconsistent on this point [59]. Measures such as need for cognition [60], field independence [61], integrative complexity [62], and leveling-sharpening [63] should be examined as possible correlates of Openness to Experience.

Consciousness and Mental Processes

Openness is known to be related to a number of mental phenomena including hypnotizability [64] and remembered dreaming [35]. Given its prevalence among artists [1], it seems probable that synesthesia is characteristic of open people, and one study reported that patients with Alzheimer's Disease were more likely to suffer from hallucinations if their premorbid personality was characterized by high Openness to Aesthetics [65].

Experimental psychologists concerned with studying mental processes may wish to administer trait measures to examine Trait × Treatment interactions. Qualls and Sheehen reported that imagery was an effective treatment for hypertension chiefly among individuals high in Absorption [66]. Open and closed individuals may also differ in their reactions to psychoactive drugs, sensory deprivation, or meditation.

Cognition and Emotion

Psychologists have debated for years the relative importance of cognitive and affective determinants of experience, but it is clear that these two are in some senses inextricably interrelated: We respond emotionally to events as we perceive and construe them, but our perceptions are often clouded or colored by our affective state.

It seems likely that the degree of interrelation of these two sets of processes is a function of Openness. Closed minds tend to be compartmentalized [34], with relative isolation of ideas and affects. Such isolation need not be construed as a defense or sign of pathology; it may merely reflect the structure of consciousness in closed individuals. Although it might hinder insight in psychotherapy, it might also contribute to objectivity in assessing reality.

Open people, by contrast, are likely to show a permeability of consciousness in which the boundaries between perceptions, thoughts, and feelings are blurred. For most of us, a piece of sulfur is a piece of sulfur, but its brilliant yellow was enough to bring tears and philosophical wonder to an exceptionally open individual [1]. Researchers who wish to understand affect and cognition must take into account the Openness of their subjects.

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