16. M. F. Scheier and C. S. Carver, Self-focused Attention and the Experience of Emotion: Attraction, Repulsion, Elation, and Depression, *Journal of Personality and Social Psychology*, *35*, pp. 625-636, 1977.
17. _____, Private and Public Self-attention, Resistance to Change, and Dissonance Reduction, *Journal of Personality and Social Psychology*, *39*, pp. 390-405, 1980.
18. C. S. Carver and M. F. Scheier, *Attention and Self-regulation: A Control-Theory Approach to Human Behavior*, Springer-Verlag, New York, 1981.
19. M. F. Scheier and C. S. Carver, Private and Public Aspects of Self, in *Review of Personality and Social Psychology* (Volume 2), L. Wheeler (ed.), Sage, Beverly Hills, 1981.

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MOMENTS OF AFFECTIVE INSIGHT: THEIR PHENOMENOLOGY AND RELATIONS TO SELECTED INDIVIDUAL DIFFERENCES*

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ABSTRACT

Affective insight was defined as a subjective event occurring during intensive self-reflection. To study affective insight, seventy-nine individuals were presented instructions designed to encourage intensive self-reflection. Subsequently, they completed an open-ended questionnaire and a seventy-two-item true-false questionnaire describing their experience during self-reflection. Q-type factor analysis of the seventy-two-item questionnaire revealed four different types of reactions during the instructions: underdistancing, overdistancing, intellectual self-control, and apprehensive insight. An eight-item Affective Insight Scale (AIS) was developed which was independent of social desirability, which differentiated these four groups of participants, and which correlated positively with a judge's ratings of affective insight as indicated in responses to the open-ended questionnaire. Using the AIS, there was support for the hypothesis that affective insight is associated with imagery involvement, as measured by the Creative Imagination Scale, the Absorption Scale, and Rorschach M responses. There was also some support for the hypothesis that affective insight is associated with a preference for novel imagery, as measured by the Barron-Welsch Art Scale. Other trait measures predicted reactions which were conceptually and empirically independent of affective insight (e.g., intellectual self-control), indicating the importance of simultaneously studying different reactions during intensive self-reflection.

There are times when people report exceptional insight into themselves and, however fleetingly, can honestly say, "This is who I really am; these are my genuine concerns!" The universality and persistence of such departures from mundane self-perception are affirmed in the literature on tragic self-transformation [1], existential philosophy [2], and psychotherapy [3]. According to traditional accounts of their phenomenology, moments of affective insight have several more-or-less constant characteristics. First, such moments begin with the emergence of discernible but vague bodily feelings. The individual detects feelings that resist articulation in a manner analogous to the tip-of-the-tongue phenomenon, i.e., the person is able to sense—but not say—what his/her concerns are [4]. Second, the moment of insight is experienced as a shift from that initial vagueness to felt certainty. During the shift, self-perceptions are not experienced as valid by virtue of self-observation and inference, but by immediately feeling the validity of a newly emerged conception of one's personal concerns [5]. Third, these newly conceived concerns are not experienced as suddenly created but, rather, as if they had always been there without being realized before [3]. Fourth, the shift in self-awareness is accompanied by a sense of vitality, as if the capacity for self-direction had been temporarily expanded [6]. For the present purposes, affective insight is defined as a subjective event with the preceding attributes.

Despite the importance of affective insight in traditional literature, recent studies of self-knowledge have deemphasized personal insight [7]. One reason is the set of methodological problems inherent in the assessment of veridical self-perception [8]. Another reason is the disappointing predictive power of self-report personality measures [9], indicating the limitations of generalized self-perception. Finally, there is evidence that even momentary self-perception is subject to a variety of invalidating influences [10].

In the present study, we attempt a reformulation of affective insight which circumvents these obstacles. A key to our reformulation is the suggestion that affective insight be approached as an event, i.e., as a temporary state change, rather than as a trait. The trait emphasis, which dominated research on personal insight during the era of self-concept theories [11], obscured phenomenological reports of affective insight as a short-lived change in self-perception [6]. Approaching affective insight as an event is not only consistent with the phenomenology of those experiences; it also enables experimental study of their determinants.

A second ingredient in our reformulation is the suggestion that affective insight be defined independently of the veridicality of the insight involved. The momentary experience of affective insight is best considered a hypothetical construct much like an attribution or belief. Attributions and beliefs are studied independently of their truth value, and similarly the self-perceptions associated with affective insight may be studied independently of any objective correspondence with the "real self." Thus, the assessment and study of affective insight should concentrate on the feelings, attitudes, and self-perceptions that define it as a unique subjective event.

A third ingredient in our reformulation is actually an hypothesis subject to empirical examination. We propose that moments of affective insight occur primarily during reflection on feelings related to current concerns, where current concerns are defined as those goals to which an individual is presently committed [12]. Reflection on feelings related to current concerns is likely to magnify those feelings [13, 14] and facilitate retrieval of memories related to those feelings [15, 16]. Reflection on feelings related to current concerns defines intensive self-reflection and may prove important in predicting moments of affective insight.

Affective insight, understood as a subjective event occurring during intensive self-reflection, has been studied primarily by psychologists interested in psychotherapy. The occurrence of affective insight during psychotherapy has been repeatedly associated with client improvement [17-22]. However, the importance of affective insight in psychotherapy should not obscure the fact that it occurs in other settings which prompt intensive self-reflection. By considering affective insight apart from pragmatic concerns, it is possible to select or design settings which encourage intensive self-reflection and still allow considerable experimental control. In such settings, specific questions about psychological processes may be examined.

One such setting is the experimental use of instructions developed by Gendlin to encourage intensive self-reflection [4, 23]. This instructional sequence requires attention to feelings related to a current concern and symbolic representation of those feelings. In the research reported here, these instructions were adapted so that they could be administered systematically to research participants. Using these procedures, we attempted to study (a) the phenomenology of affective insight and (b) individual differences predictive of affective insight.

METHOD

Participants

Eighty-three volunteers responded to notices of research on self-reflective styles placed in various locations on the University of Alberta campus. Volunteers were interviewed to determine whether they had experienced recent emotional distress. If so, they were encouraged not to participate because of the emotionally involving nature of the research procedures. Four volunteers were excluded on this basis. The remaining seventy-nine participants included forty-three women and thirty-six men between the ages of eighteen and thirty-eight ($M = 24.5$).

Individual Difference Measures

In two preliminary two-hour sessions, participants completed the following questionnaires and tests: the Private Self-consciousness, Public Self-consciousness, and Social Anxiety scales developed by Fenigstein, Scheier, and Buss [24]; the Social Avoidance and Negative Evaluation scales developed by Watson and Friend [25]; the Self-Monitoring Scale [26]; the Social Desirability Scale [27]; Richardson's [28] revision of Gordon's Test for Visual Imagery Control [29]; the Stroop Color-word Test [30]; the Embedded Figures Test [31]; the Match Problems Test [32]; the Creative Imagination Scale [33]; the Absorption Scale [34]; the Rorschach, scored for human movement (M) according to criteria established by Exner [35]; the Similes Preference Inventory [36]; and the Barron-Welsch Art Scale [37].

Self-reflection Instructions

Instructions encouraging intensive self-reflection were administered to individual participants by one of two experimenters in face-to-face sessions lasting twenty-five to forty minutes. The instructions were interactive, allowing participants to indicate their progress through each segment of the instructions. Depending upon the participant's response, the experimenter branched to an appropriate repetition or variation of the instructions. Roughly, the instructions included the following steps:[1]

1. The participant was told that he/she would be asked to reflect on a personal problem.
2. The participant engaged in a brief progressive relaxation sequence, followed by covert review of any problems or concerns that came to mind and by an opportunity to attain some psychological distance from each.
3. The participant selected a problem or concern that felt important and tried to pay attention to the feelings that accompanied reflection on that problem or concern.
4. The participant allowed words or images to "come from" the feeling until a phrase or image was found which captured "what that feeling was all about."
5. The participant was asked to pay attention to what felt most important about the problem or concern until words or images occurred which seemed to "make a difference" in the way the problem or concern felt.

Immediately after the instructions were administered, participants received two questionnaires to assess their experience during the instructions.

[1] Copies of the instruction sequence are available from the first author.

Post Focusing Questionnaire (PFQ)

The first questionnaire was a modification of the PFQ, which has previously been used to assess affective insight during intensive self-reflection (e.g., [23, 38]). It asked participants to respond to a general open-ended question about their experience during the instructions and then to answer a series of more specific but also open-ended questions. The latter included questions about any changes in their feelings, the best and worst features of the experience, and what happened during certain parts of the instructions (for example, when they were encouraged to "imagine each of your concerns outside of yourself for a while and allow a quiet space to form inside you" and when they were asked to "let something come right out of the feeling, something that makes some kind of difference in the way you feel about yourself or your concern").

A judge, experienced with scoring criteria for the PFQ, was presented these questionnaires in random order and asked to classify them using the following five-point scale:[2] 1) no continued reflection on a problem or concern; 2) continued reflection on a problem or concern but inattention to the bodily feelings associated with it; 3) attention to and articulation of feelings related to a problem or concern but minimal differentiation of the qualities of those feelings; 4) attention to and differentiation of feelings related to a problem or concern; and 5) attention to and a distinctly felt shift in the quality of feelings associated with the problem or concern. A second judge scored a randomly selected subsample of twenty PFQs using the same criteria. The correlation between the two judges' scores was .65. This was not a substantial departure from the .70 correlation obtained by these same two judges in a preliminary study [39].

Post Focusing Inventory (PFI)

A seventy-two-item, true-false questionnaire was developed to assess a variety of reactions during the instructions. Items were developed in two ways. First, a sample of responses to the PFQ, available from the preliminary study [39], was examined. Recurrent statements by different participants were used to construct forty of the items for the new questionnaire. Another thirty-two items were based upon the authors' conceptions of the range of possible reactions during the instructions.

THE PHENOMENOLOGY OF AFFECTIVE INSIGHT: RESULTS

Cluster Analysis

We attempted to identify the different types of responses occurring during self-reflection so that affective insight could be contrasted with other reactions to the instructions. A Q-type factor analysis was used to identify clusters of

[2] The exact criteria are available from the first author.

participants with similar patterns of response on the PFI. Q-type factor analysis essentially groups persons into clusters on the basis of the correlations among their response patterns. This procedure was chosen because we wished to identify qualitatively different types of responses to the instructions and then determine questionnaire items that differentiated the response types. Therefore, a principle components factor analysis was applied to the matrix of correlations between participants' response patterns on the PFI, with communality estimates placed in the diagonals. Two of the seventy-nine participants failed to answer all items and were excluded from the analysis. Use of the skree test indicated that no more than four factors should be extracted from the data [40]. The four factor solution, utilizing varimax rotation, accounted for 44 percent of the variance and produced four clusters of seventeen, nine, thirty, and twenty-one individuals.

To determine the qualities of experience that characterized these clusters of individuals, relatively pure instances of each type were selected according to two criteria: (a) a factor loading of at least .400 for the cluster, and (b) a factor purity index of at least .500. The latter criterion indicates that at least one half of the variance for that individual was accounted for by the factor identifying the cluster in which he/she was a member. This selection process produced pure type clusters of eight, five, fifteen, and thirteen individuals. These four clusters were compared using one-way analyses of variance for each PFI item. When an over-all F ratio was significant, Duncan's Range Test was used to determine which clusters were significantly different from each other. Tables 1 to 5 present the PFI items that differentiated the four clusters. Except where specifically noted, the items presented are those that significantly ($p < .05$) differentiated members of a given cluster from at least two of the other three clusters.

Underdistancing

By these criteria, members of Cluster 1 reported inability to attain the relaxation and distance initially encouraged by the instructions. As indicated in Table 1, participants in this cluster reported lingering tension during reflection on their problems (#1, #2, #3). In fact, their tension may have increased during self-reflection (#4). In one cluster member's own words on the PFQ, "I felt apprehensive about what I might be asked as I was beginning to feel sad . . . I shifted from relaxation to tenseness (sic)." For members of this cluster, their reactions, including their apprehensions, were not unfamiliar or unpredictable (#1, #5, #6), and they did not experience changes in understanding during the instructions (#7, #8). As one participant put it, "It seemed as though I was able to isolate myself from the tightness and then it was back again, slightly diminished but still overbearing . . . I lacked the clarity or the calm to get any insight into it." In sum, participants in Cluster 1 appeared unable to relax and distance themselves from their problems, and their anxiety apparently disrupted subsequent attempts to reconceptualize their problems or concerns.

Table 1. Mean Scores on Post Focusing Inventory Items Identifying Cluster 1 ($N = 8$)

Item	Cluster 1	Cluster 2	Cluster 3	Cluster 4
1. I was able to stay far more relaxed than I usually am when I think about my problem (false).	1.63	1.00*	1.07*	1.23*
2. My feelings about my problem are more positive now (false).	1.75	1.20*	1.07*	1.31*
3. At first I felt anxious when I thought about my problem, but later I felt more relaxed and confident (false).	1.88	1.20*	1.00*	1.38*
4. The more I focused on my feelings about the problem, the more tense I became (true).	1.13	1.80*	1.67*	1.46
5. I was not at all thinking like I usually do; it was a wholly new way of feeling the significance of my problem (false).	2.00	1.40*	1.13*	1.23*
6. The process seemed to have its own direction; I often could not predict what was going to happen or appear next (false).	1.75	1.40	1.20*	1.23*
7. The problem feels or seems different to me now (false).	2.00	1.20*	1.13*	1.15*
8. Sometimes the way the problem felt to me suddenly became more understandable (false).	1.88	1.20*	1.00*	1.08*

* Different from the mean score for Cluster 1, $p < .05$.

Overdistancing

In contrast, members of Cluster 2 (see Table 2) were characterized by their excessive ability to relax and distance themselves from their problems or concerns—so much so that they were reluctant to forego their relaxation during self-reflection (#1, #2). For example, one cluster member said, "It was disturbing to have to return to the feeling [about the problem] after having achieved some distance from it." Furthermore, members of this cluster indicated an inability to

Table 2. Mean Scores on Post Focusing Inventory Items
Identifying Cluster 2 (N = 5)

Item	Cluster 1	Cluster 2	Cluster 3	Cluster 4
1. I was able to relax so deeply that nothing bothered me or seemed important enough to focus on (true).	2.00*	1.40	1.80*	2.00*
2. I didn't want to focus on a personal problem because I was feeling too good (true).	1.88	1.60	2.00*	2.00*
3. It would be possible for me to focus again on the same problem and pick up with what I was feeling when we finished a few minutes ago (false).	1.13*	1.40	1.00*	1.00*
4. The whole sense of my problem is much more with me now; I could go back to it immediately if I wished (false).	1.38	1.60	1.07*	1.15*
5. If I think about it now, I can close my eyes and form an image that somehow captures what I feel about my problem (false).	1.38	1.60	1.00*	1.08*
6. My images were blurry and not distinct (true).	1.88*	1.40	1.87*	1.92*
7. I seemed to drift into a dreamlike state (true).	1.63*	1.00	1.53*	1.31
8. I experienced unusual physical sensations in my body, e.g., floating, lightness (true).	1.75*	1.00	1.53*	1.38

* Different from the mean score for Cluster 2, $p < .05$.

re-engage feelings related to their problems when encouraged to do so (#3, #4, #5). One member wrote, "My feelings [were] very weak/diluted . . . I felt somewhat detached from it all." Not surprisingly, then, people in this cluster reported an inability to create compelling images related to their feelings (#5, #6). One participant said, "I was unable to open the image . . . to see the emotions or tensions that may have been there." Finally, the excessive distance

Table 3. Items Differentiating Clusters 1 and 2 from Clusters 3 and 4

Item	Cluster 1	Cluster 2	Cluster 3	Cluster 4
1. At first my feelings were unclear but later they seemed clear and more definite (true).	1.75	1.60	1.07*	1.08*
2. The meaning and nature of my problem has changed in a way that enables me to say something different about it (true).	2.00	1.80	1.20*	1.08*
3. I found better words or images for what I was feeling than I had before (true).	1.88	1.60	1.07*	1.00*
4. Focusing brought things together that I had not considered in the same way before (true).	2.00	2.00	1.13*	1.08*
5. During focusing I realized aspects of my problem that I had not paid much attention to before (true).	1.88	2.00	1.00*	1.31*
6. Everything about my problem is exactly as it was before focusing (false).	1.13	1.40	1.80*	2.00*

* Different from the mean scores for Clusters 1 and 2, $p < .05$.

these participants attained may have assumed trance-like qualities (#7), accompanied by bodily sensations unrelated to feelings about their problems or concerns (#8). In sum, participants in Cluster 2 attained the relaxation and distance initially encouraged in the instructions, but they were subsequently unable to retrieve feelings or create images related to their problems and utilize these to reconceptualize their feelings or concerns.

Although reporting contrasting styles of underdistancing and overdistancing, members of Clusters 1 and 2 shared an inability to attain some form of insight into their problems or concerns. In this respect, they differed from members of Clusters 3 and 4 who indicated that they attained reconceptualization of their problems. Items significantly differentiating Clusters 3 and 4 from Clusters 1 and 2 are presented in Table 3. Compared to Clusters 1 and 2, participants in Clusters 3 and 4 indicated greater clarification of feelings (#1), more readily symbolized problem significance (#2, #3), and novel reconceptualization of their problems (#4, #5, #6).

Intellectual Self-control

Despite their shared differences from Clusters 1 and 2, Clusters 3 and 4 could be contrasted with each other as well. Specifically, participants in Cluster 3 reported a form of insight accompanied by problem solutions. Members of this cluster (see Table 4) indicated that they sought solutions to their problems (#1, #2) and frequently attained them (#3, #4, #5). They also indicated that their problems became less important (#6). Some cluster members described their experiences in words that emphasized the value of attaining control over their problems, e.g., "Focusing on the problem made me realize that I control the situation," "I found a way to change [my problem] by drawing on my inner confidence . . . I feel stronger now." In sum, members of this cluster attained insight in a form which suggested self-control and which replaced apprehension with more positive feelings.

Table 4. Mean Scores on Post Focusing Inventory Items
Identifying Cluster 3 (N = 15)

Item	Cluster 1	Cluster 2	Cluster 3	Cluster 4
1. I thought about the problem and tried to find the best solution for it (true).	1.88*	2.00*	1.47	2.00*
2. This exercise gave me some time to think about solutions to my problem (true).	1.75*	1.80*	1.13	1.77*
3. Once I could feel the whole sense of the problem in my body, I could see what was behind it, what it was all about (true).	1.63*	1.60*	1.07	1.54*
4. I now know what is wrong with how I feel about my problem (true).	1.63*	1.60*	1.07	1.54*
5. At first I didn't have a solution to my problem but later I felt a clear sense of what I had to do (true).	2.00*	2.00*	1.20	1.92*
6. My problem seems less important than it did before (true).	2.00*	1.60	1.27	1.77*

* Different from the mean score for Cluster 3, $p < .05$.

Apprehensive Insight

Participants in Cluster 4 (see Table 5), in contrast, reported reconceptualization of their problems or concerns which emphasized unanticipated, perhaps unpleasant feelings (#1, #2). For example, one participant wrote that she was "startled" by the "helplessness" she felt; another noted that the "feeling I had . . . was stronger than I wanted to admit (anger)." Equally important is that members of this cluster reported inability to resolve these feelings (#3, #4). For example, one cluster member said, "The problem made me feel nervous and upset . . . I felt as though . . . I couldn't get rid of it." Other evidence of their frustration was that they acknowledged that the changes in their feelings were difficult to describe (#5) and that they could not follow the instructions easily (#6). In sum, members of this cluster reported a form of affective insight, i.e., they were able to more clearly identify troublesome feelings related to their problems or concerns. However, there was no indication of resolution or relief

Table 5. Mean Scores on Post Focusing Inventory Items
Identifying Cluster 4 (N = 13)

Item	Cluster 1	Cluster 2	Cluster 3	Cluster 4
1. I can now see things that I was previously afraid to see (true).	2.00*	2.00*	1.47*	1.08
2. I came face to face with feelings I usually ignore (true).	1.88*	1.80*	1.40	1.15
3. I know my feelings better now but not how to solve my problem (true).	2.00*	1.00	1.53*	1.00
4. I wasn't able to come to a solution to my problem (true).	1.38*	1.00	1.87*	1.00
5. The way the problem has changed is difficult to describe in words or images (true).	2.00*	1.20	1.73*	1.31
6. The effort of following the instructions sometimes made it hard to focus on my feelings (true).	1.88*	2.00*	1.80*	1.31

* Different from the mean score for Cluster 4, $p < .05$.

from the tension associated with their discoveries. In fact, more than one person in the cluster reported a desire to spend more time discussing the problem or repeating the exercise.

Affective Insight Scale Development

Among the diverse items differentiating the four clusters, those of particular interest were items indicating reconceptualization of the felt significance of the problem or concern. To develop a scale for measuring affective insight, we selected items according to three criteria. First, selected items had face validity, i.e., they were unambiguously conceptually linked to the phenomenon of affective insight. Second, selected items were not significantly correlated with social desirability [27]. Third, selected items were factorially valid, as indicated by factor loadings greater than .500 on one factor and less than .300 on all other factors identified in an R-type factor analysis of the PFI data. The R-type factor analysis (principle components analysis, communality estimates in the diagonals, varimax rotation) produced four factors, one of which clearly indicated affective insight.

Eight items loading highly on the affective insight factor also met the other criteria for inclusion in an Affective Insight Scale (AIS). These items included one that differentiated Clusters 2, 3, and 4 from Cluster 1 (item #7 in Table 1), four items that differentiated Clusters 3 and 4 from Clusters 1 and 2 (items #2, #3, #4, and #6 in Table 3), and three items that differentiated Cluster 4 from Clusters 1, 2, and 3 (items #1, #2, and #3 in Table 5). Consistent with the traditional phenomenology of affective insight, some of the AIS items reflected reconceptualization of feelings related to a problem or concern, and other items indicated that this reconceptualization involved feelings already present but not previously acknowledged. The eight-item scale had a KR-20 reliability of .73. Furthermore, the scale differentiated the four clusters from each other (overall $F(3,37) = 60.99$, $p < .001$). Mean subscale scores for each cluster were .38 (Cluster 1), 3.00 (Cluster 2), 5.87 (Cluster 3), and 7.46 (Cluster 4), each different from any of the others using Duncan's Range Test ($p < .05$). The scale also correlated significantly, albeit modestly, with the PFQ ratings ($r = .32$, $p < .05$) and insignificantly with social desirability ($r = -.06$, n.s.).

THE PHENOMENOLOGY OF AFFECTIVE INSIGHT: DISCUSSION

The results of the Q-type factor analysis of the PFI suggested four more-or-less independent types of participant reactions during intensive self-reflection. The items that significantly differentiated these types should be considered with caution because 1) "ceiling" effects frequently meant that the homogeneity of variance assumption was not met; 2) the number of comparisons was large, and 3) Q-type factor analysis will frequently generate different clusters even when

the data are not well structured. There are no totally acceptable solutions to the statistical problems inherent in this type of analysis. Nonetheless, the differentiating items provided coherent and interpretable cluster characteristics. Briefly, the four types of response were: underdistancing (Cluster 1), overdistancing (Cluster 2), intellectual self-control (Cluster 3), and apprehensive insight (Cluster 4).

These data indicate that the instructions encouraging intensive self-reflection elicited experiences similar to those reported in natural settings which encourage intensive self-exploration. For example, Rice and her colleagues have identified patterns of voice qualities during psychotherapy that they label emotional, limited, externalizing, and focused [41, 42]. These closely correspond to our categories of underdistancing, overdistancing, intellectual self-control, and apprehensive insight, respectively. This does not mean that participants in the present research experienced moments of insight which compare in intensity or significance with those occurring during psychotherapy. In fact, response patterns in Clusters 3 and 4 (intellectual self-control and apprehensive insight) hinted at limitations of the present experimental situation. On the one hand, the intellectual self-control reported in Cluster 3 did suggest the sense of agency that is portrayed as a theme in traditional accounts of affective insight [6]. However, the very emphasis on solution search and attainment, as well as comments about affective control in accompanying PFQ responses, may be understood as intellectualized self-management rather than affective insight. Similarly, the emergence of unwanted feelings in Cluster 4 did suggest the realization of unanticipated feelings and concerns mentioned in traditional accounts of affective insight [3]. However, these participants also reported an inability to symbolically represent their feelings, and their PFQ comments suggested a frustrating sense of incompletion. In sum, neither of the two clusters reporting some form of reconceptualization of problems or concerns unambiguously reported affective insight in the form described in prior studies.

It is significant, then, that the scale developed to assess affective insight was factorially independent of the items that suggested intellectualization in Cluster 3 and of the items that suggested inability to symbolically represent feelings in Cluster 4. Specifically, neither the Cluster 3 items indicating search for solutions nor those indicating solution attainment characterized the factor on which the scale was based. Similarly, the Cluster 4 items indicating difficulty focusing on feelings and inability to symbolically characterize feelings did not characterize the factor on which the scale was based. This pattern indicates that the affective insight scale, while possessing moderate internal consistency, is largely independent of certain potentially contaminating variables. Further support for the validity of the scale is indicated by modest convergence with the methodologically different measure of affective insight, i.e., the judge's ratings of the PFQ, and by divergence from one measure of socially desirable responding. Although the affective insight scale presently does not include a balance of

positively and negatively worded items, it seems worthy of further refinement and construct validation.

It should be emphasized that the affective insight scale scores for Cluster 4 (apprehensive insight) were higher than those for Cluster 3 (intellectual self-control). This difference was primarily due to those scale items indicating revelation of unexpected feelings (items #1 and #2, Table 5). Those items suggest attainment of a deepened—if unsettling—conception of feelings related to the participants' problems or concerns. Since these items are factorially independent of contaminating variables, and since they differentiated Cluster 4 from all other clusters, they may be critical in the identification of the subtlest forms of affective insight—perhaps those alluded to in the traditional literature.

In summary, the affective insight scale developed here provides a measure of affective insight which may be useful in research. The scale discriminates individuals who report underdistancing, overdistancing or intellectual self-control during self-reflection, from individuals who seem to attain a deepened conception of their feelings. The scale meets minimal criteria for convergence with a methodologically dissimilar measure of affective insight and divergence from social desirability. Since recent research [43, 44] indicates that people find private thoughts and feelings more diagnostic of themselves than their overt behavior, the affective insight scale may be useful in studying momentary changes in the utilization of thoughts and feelings that determine self-perception.

PREDICTING AFFECTIVE INSIGHT: HYPOTHESES

To clarify the significance of the AIS, we attempted to determine whether the AIS is correlated with theoretically related individual differences. For this purpose, some explication of the theory guiding the present research is required. A theory of affective insight should describe the processes by which reflection on personal feelings and related memories facilitates reconceptualization of a personal concern. The theory should not only account for the reconceptualization *per se*; it should also explain other attributes of reported affective insight, including 1) the initial vague complexity of feelings related to a personal problem or concern; 2) the emerging clarity of these feelings and the felt validity of their conceptualization; and 3) the impression that somehow these feelings were previously present but not acknowledged.

To provide such a theory, certain basic assumptions about the nature of human experience must be considered. First, meaningful experience may occur either with or without phenomenal representation, i.e., with or without explicit awareness. For example, under certain conditions, events (e.g., verbal stimuli) are processed semantically without explicit awareness [45, 46]. Second, the physiological concomitants of experience include fairly specific patterns of neuromuscular change. For example, movement imagery is accompanied by

corresponding muscular activity [47]. The preceding assumptions imply that there is a continuing, neuromuscular substrate of our experience that is both a function of the mental events of which we are aware and those of which we are unaware.

When attention is appropriately deployed, patterns of neuromuscular activity can be felt, as in the tip-of-the-tongue phenomenon, even though the corresponding mental events are not themselves available in awareness. Furthermore, during reflection on affect-laden personal concerns, neuromuscular activity (e.g., changes in facial expression) may be important sources of information about the quality of feelings that accompany those concerns. This notion is consistent with evidence that specific neuromuscular patterns differentiate affective states [48], suggesting that affective states are incipient, preparatory, or muted forms of movement [49]. In brief, bodily feelings related to nonconscious mental events may become available during reflection on current concerns, i.e., during intensive self-reflection. At that time, attention to bodily events, some of which are caused by mentation outside of awareness, may reveal an unarticulated complexity of feelings—what Gendlin refers to as the bodily felt sense of the problem or concern [3].

The present theory hypothesizes four stages in the process by which people attend to, articulate, and symbolically represent bodily events during intensive self-reflection. These stages are:

1. Physical and cognitive relaxation, during which the person relaxes and temporarily achieves distance from a current concern;
2. Direct reference, during which the person attends without distraction to the bodily felt events that accompany the concern;
3. Differentiation, during which unanticipated qualities of these bodily felt events are discriminated; and
4. Referent movement, when an image or phrase is discovered which not only clarifies but seems to effect change in the bodily felt events.

Each stage is associated with distinct obstacles to reconceptualization of personal concerns. The first stage, *physical and cognitive relaxation*, occurs when the person becomes less apprehensive about the adequacy or desirability of thoughts and feelings related to the current concern. In the instructions for self-reflection used in the present study, opportunity for relaxation is provided in a brief progressive relaxation sequence, followed by suggestions for attaining psychological distance from any problems or concerns that come to mind. However, attempts to relax and distance oneself from problems or concerns may fail when a person is socially anxious—either because of situational factors or personality characteristics. Social anxiety may result in a level of vigilance about social consequences which directs attention to the real or imagined judgments of others and causes avoidance of further self-reflection in the presence of others. This hypothesis (Hypothesis 1) was examined by determining the correlations

between affective insight, as measured by the AIS, and two trait measures of social anxiety: the Social Anxiety Scale [24] and the Social Avoidance Scale [25].

The second stage, *direct reference*, occurs when attention is selectively directed toward the vague complex of neuromuscular activity that accompanies reflection on a current concern. Selective and persistent attention to this bodily felt sense of a current concern causes the intensification and increased salience of bodily feelings during self-reflection [13, 14]. The instructions used in the present study encourage concentrated attention to bodily feelings, but this attentional effort may be impeded by inability to resist distraction, either due to external stimuli (e.g., noises) or due to irrelevant internal stimuli (e.g., intrusive images or bodily sensations). Distraction may impede feeling intensification and disrupt further attempts to discriminate feeling qualities. This hypothesis (Hypothesis 2) was examined by determining correlations between the AIS and individual differences in (a) intrusive imagery, as measured by Richardson's [28] revision of Gordon's [29] Test for Visual Imagery Control, and (b) distractibility, as measured by the Stroop Color-word Test [30].

The third stage, *differentiation*, occurs when attention to intensified bodily feelings enables discrimination of features of those feelings that may not be anticipated by familiar explanatory and descriptive hypotheses. This discriminatory skill is like that required for embedded figures tasks when the figure to be disembedded is not known beforehand [23, 50]. Although the self-reflection instructions used in the present study encourage discrimination of novel features of bodily feelings, this process may be impeded by the rigidity or fixedness of explanatory and descriptive hypotheses that guide attention to such feelings. This hypothesis (Hypothesis 3a) was examined by determining correlations between the AIS and attentional flexibility as measured by the Embedded Figures Test [31] and the Match Problems Test [32]. Even when attention can be flexibly deployed, the differentiation of novel features of feelings may be impeded by attempts to monitor and control expressive behavior so that it conforms to some conception of what is appropriate. This hypothesis (Hypothesis 3b) was examined by assessing correlations between the AIS and the following trait measures of the tendency to monitor and control expressive behavior: Public Self-Consciousness [24], The Negative Evaluation Scale [25], and Self-Monitoring [26].

The fourth stage, *referent movement*, occurs when continued reflection on the complex of anticipated and unanticipated bodily feelings prompts words or images that may be used to symbolically represent those feelings. This stage may be one in which imagery plays an especially important role [51, 52]. Specifically, imagery, when actively used as metaphor, allows reference to bodily feelings in a representational form that points to their expressive continuation or completion. That is, when matched to an appropriate image, the muted or incipient action detected as a novel bodily feeling may change to more closely approximate its completed or consummated form. By this account, the image used metaphorically not only represents bodily feelings but transforms them into their more fully engaged form, e.g., vaguely felt emptiness may be transformed into felt loss with explicit postural and facial expressions of sadness. The feeling that emerges with such a "felt shift" [3] is experienced as having been present prior to the metaphoric representation, although only as muted, preparatory muscular activity. The self-reflection instructions used in the present study encourage exploration of images that representationally "fit" personal feelings, but the "felt shifts" in bodily feelings may not occur if the person is unable to sense the kinesthetic concomitants of personal imagery. That is, kinesthetic involvment in personal imagery may enable the use of imagery as a representational vehicle for bodily feelings and the consequent experience of "felt shifts" or referent movement. This hypothesis (Hypothesis 4a) was examined by determining correlations between the AIS and the following trait measures of imagery involvement: the Creative Imagination Scale [33], the Absorption Scale [34], and Rorschach human movement (M) responses [35].

Given that the bodily feelings to be metaphorically represented include newly discriminated features, another impediment to referent movement may be a predilection to use mundane rather than novel imagery forms. Therefore, it was expected that the tendency to prefer novel imagery would facilitate referent movement. This hypothesis (Hypothesis 4b) was examined by determining correlations between the AIS and two measures of preference for novel imagery: the Similes Preference Inventory [37] and the Barron-Welsch Art Scale [37].

PREDICTING AFFECTIVE INSIGHT: RESULTS

The individual difference measures theoretically related to affective insight were correlated with the AIS and with four other scales composed of PFI items that uniquely identified conceptually and empirically different types of reactions during the self-reflection instructions. These data are presented to validate the four types of reactions, as determined by the phenomenological analysis, and to compare the predictors of these reactions with the predictors of affective insight. The four types of reactions may be summarized as follows:

1. Underdistancing—the inability to relax and attain psychological distance from current concerns;
2. Overdistancing—excessive relaxation and the inability to retrieve bodily feelings related to current concerns;
3. Intellectual self-control—the search for solutions to personal problems and the exercise of affective self-management; and
4. Apprehensive insight—the unsettling articulation of feelings usually ignored.

Table 6. Correlations Between Individual Difference Measures, Cluster Characteristics, and the Affective Insight Scale

	Underdistancing	Overdistancing	Intellectual Self-Control	Apprehensive Insight	Affective Insight Scale
H1: Social Anxiety Scale	.23*	.11	-.24*	-.09	-.06
Social Avoidance Scale	.27*	.07	-.20	.15	.00
H2: Stroop Color-Word Test	.07	.25*	.06	-.07	.11
Visual Imagery Control	-.01	-.37*	.21	-.03	.05
H3a: Embedded Figures Test	.09	.01	.07	-.10	-.05
Match Problems Test	.09	.01	-.04	-.07	-.06
H3b: Public Self-Consciousness Scale	.09	.10	-.27*	.28*	.04
Self-monitoring Scale	.00	-.01	.11	-.09	-.01
Negative Evaluation Scale	-.01	-.08	-.15	.28*	.26**
H4a: Creative Imagination Scale	-.20	-.28*	.01	.19	.28**
Absorption Scale	-.17	-.24*	.05	.21	.27**
Rorschach Movement	-.23*	-.05	.05	.02	.21**
H4b: Similes Preference Inventory	.03	-.06	-.12	.06	.10
Barron-Welsh Art Scale	-.06	-.02	-.09	-.02	.23**
Social Desirability	.16	-.23*	.03	-.04	-.06
Affective Insight Scale	-.63*	-.38*	.31*	.65*	

* $p < .05$, two-tailed.
** $p < .05$, one-tailed.

Correlates of Affective Insight

The resulting correlation matrix is presented in Table 6. It had been expected that the AIS would be negatively correlated with social anxiety (Hypothesis 1), negatively correlated with distractibility (Hypothesis 2), positively correlated with attentional flexibility (Hypothesis 3a), negatively correlated with self-monitoring (Hypothesis 3b), positively correlated with imagery involvement (Hypothesis 4a), and positively correlated with preference for novel imagery (Hypothesis 4b). Contrary to expectations, there were no significant correlations consistent with Hypotheses 1-3.

On the other hand, there was consistent support for the hypothesis (Hypothesis 4a) that imagery involvement would facilitate affective insight. The correlations between the AIS and the Creative Imagination Scale, the Absorption Scale, and Rorschach M scores were all as predicted. Besides confirming the role of involvement in affective imagery during self-reflection [31], these data bolster the interpretation of Rorschach M scores as reflective of the ability to constructively utilize inner experience [35]. Furthermore, there was evidence supporting the hypothesis (Hypothesis 4b) relating preference for novel imagery to affective insight, although the correlation with the AIS was significant for the Barron-Welsh Art Scale, and not for the Similes Preference Inventory. Together, these data suggest the importance of involvement in novel imagery forms in facilitating affective insight as measured here.

Correlates of Other Reactions

An eight-item PFI subscale composed of items uniquely identifying underdistancing during self-reflection was correlated positively with Social Anxiety and Social Avoidance, and negatively with the frequency of Rorschach human movement (M) responses. These data suggest that underdistancing during self-reflection is associated with high levels of vigilance about the responses of real or imagined others, which may prevent constructive utilization of inner experience.

An eight-item PFI subscale composed of items uniquely identifying overdistancing during self-reflection correlated positively with distractibility, as measured by the Stroop Color-Word Test, and negatively with Visual Imagery Control, indicating that individuals who overdistanced were distracted from their self-reflective task by external and/or irrelevant internal stimuli. Overdistancing was also negatively correlated with two scales measuring imagery involvement, i.e., the Absorption Scale and the Creative Imagination Scale. Together, these data suggest that controlled concentration on affective imagery is necessary to obtain imagery involvement.

A six-item PFI subscale composed of items uniquely identifying intellectual self-control correlated negatively with Social Anxiety and with Public Self-consciousness, both as measured in scales developed by Fenigstein, Scheier, and

Buss [24]. These results suggest that intellectual self-control during self-reflection is associated with unself-conscious sociability. To clarify this interpretation, it may be noted that the sum of three subscale items particularly reflective of active solution search (e.g., "This exercise gave me time to think about solutions to my problem") correlated .22 ($p < .05$) with Social Desirability [27]. Together these data suggest that intellectual self-control is a form of social self-discipline in which the person's conception of appropriate thoughts or feelings during self-reflection involves stereotyped standards of desirability.

A six-item PFI subscale composed of items uniquely identifying apprehensive insight correlated positively with the Public Self-Consciousness Scale and with the Negative Evaluation Scale. These correlations suggest that, for some individuals, uncovering unwanted feelings during self-reflection was a source of self-conscious embarrassment.

PREDICTING AFFECTIVE INSIGHT: DISCUSSION

The AIS, as a measure of momentary affective insight, was significantly correlated with three different measures of imagery involvement, i.e., the Creative Imagination Scale, the Absorption Scale, and Rorschach M responses. These data confirm the hypothesis that kinesthetically involving imagery, when actively used as metaphor, not only represents feelings but also transforms them to produce subjectively felt shifts in the affective information available. It is noteworthy that self-reported affective insight was associated with preference for novel imagery forms, as measured by the Barron-Welsch Art Scale. This confirms that felt shifts in feelings require metaphoric use of imagery that captures novel rather than mundane feeling attributes. Finally, since Private Self-consciousness has been associated with imagery ability [53], it should be mentioned that Private Self-consciousness was positively correlated with the AIS ($r = .20, p < .05$). This result replicates a preliminary study [54] and suggests that, for persons who are privately self-conscious, metaphoric use of imagery contributes to the utilization of internal events during self-reflection.

The preceding results confirm speculation about the important role of imagery during intensive self-reflection [51, 55]. They are also consistent with research indicating that people who actively differentiate and integrate affective information and who describe their feelings with a soft, hesitant (focused) voice quality [41], are inclined to use language rich in simile and metaphor [56]. Since focused voice quality has been associated with progress in insight-oriented psychotherapy [42], it is of interest that focused voice quality, like the AIS, is correlated with Rorschach M scores [41]. On this basis, it might be expected that affective insight, as measured by the AIS, would be associated with increases in the use of focused voice quality during intensive self-reflection.

The present data also indicate that a number of the variables in our theoretical model affect reactions which are conceptually and empirically independent of

affective insight. First, social anxiety, as measured by the Social Anxiety Scale and the Social Avoidance Scale, was associated with self-reported underdistancing during the instructions. Underdistancing is the inability to relax and attain psychological distance from current concerns, a self-reflective style comparable to that associated with the emotional voice quality identified by Rice and her colleagues [41, 42]. The correlations between underdistancing and social anxiety in the present data suggest that emotionality during underdistancing involves apprehension about others' judgments.

Second, distractibility, as measured by the Stroop Color-Word Test and the Test for Visual Imagery Control, was associated with overdistancing during the instructions. Overdistancing is excessive relaxation and the inability to retrieve bodily feelings related to current concerns. It is comparable to the self-reflective style associated with the limited voice quality identified by Rice and her colleagues. The correlation between overdistancing and distractibility indicates these persons' inability to concentrate adequately during intensive self-reflection.

Third, intellectual self-control was a type of reported experience during the instructions that was associated with low scores on the Social Anxiety Scale and on the Public Self-consciousness Scale. Intellectual self-control is the search for solutions to personal problems and the exercise of affective self-management, a pattern associated with an externalizing voice quality by Rice and her colleagues. It is significant that Rice and Wagstaff found this pattern associated with psychotherapeutic success as perceived from the clients' perspective but not from the therapists' perspective [42]. Analogously, in the present study, intellectual self-control involved a self-reported search for solutions which was correlated with Social Desirability. The unself-aware sociability and stereotyped standards indicated here suggest that intellectual self-control is a form of self-deception, rather than impression management as had been anticipated by our model [cf. 57].

In sum, the preceding results indicate that it is important to differentiate affective insight from certain qualitatively different reactions during intensive self-reflection. The AIS seems capable of detecting subjectively important moments of affective insight independent of underdistancing, overdistancing, and intellectual self-control, and different trait variables predicted affective insight than predicted these other reactions. The theory of affective insight presented here anticipated some of the imagery skills conducive to affective insight. Perhaps by examining the multiple consequences of intensive self-reflection, we may develop more precise conceptions of the processes by which affective insight occurs.

REFERENCES

1. Aristotle, Poetics, in *Aristotle's Politics and Poetics*, B. Jowett and T. Twining (trans.), Viking Press, New York, pp. 223-265, 1952.
2. M. Heidegger, *Being and Time*, Harper and Row, New York, 1962.

3. E. T. Gendlin, A Theory of Personality Change, in *Personality Change*, P. Worchel and D. Byrne (eds.), Wiley, New York, pp. 100-148, 1964.

4. E. T. Gendlin, *Focusing*, Bantam, New York, 1981.

5. R. D. Laing, *The Divided Self*, Pantheon, New York, 1969.

6. A. Maslow, *Toward a Psychology of Being*, Van Nostrand, New York, 1968.

7. H. Markus, Self Knowledge: An Expanded View, *Journal of Personality*, *51*, pp. 543-565, 1983.

8. L. J. Cronbach, Processes Affecting Scores on "Understanding of Others" and "Assumed Similarity," *Psychological Bulletin*, *52*, pp. 177-193, 1955.

9. W. Mischel, Toward a Cognitive Social Learning Reconceptualization of Personality, *Psychological Review*, *80*, pp. 252-283, 1973.

10. E. R. Nisbett and T. D. Wilson, Telling More than We Know: Verbal Reports on Mental Processes, *Psychological Review*, *84*, pp. 231-259, 1977.

11. R. C. Wylie, *The Self-concept: A Review of Methodological Considerations and Measuring Instruments* (Revised Edition), Vol. 1, University of Nebraska Press, Lincoln, Nebraska, 1974.

12. E. Klinger, *Meaning and Void*, North Central Publishing Company, St. Paul, Minnesota, 1977.

13. M. F. Scheier and C. S. Carver, Self-focused Attention and the Experience of Emotion: Attraction, Repulsion, Elation, and Depression, *Journal of Personality and Social Psychology*, *35*, pp. 625-636, 1977.

14. G. E. Schwartz, P. L. Fair, P. Mandel, and G. L. Klerman, Facial Expression and Imagery in Depression: An Electromyographic Study, *Psychosomatic Medicine*, *38*, pp. 337-347, 1976.

15. K. A. Leight and H. C. Ellis, Emotional Mood States, Strategies, and State Dependency in Memory, *Journal of Verbal Learning and Verbal Behavior*, *20*, pp. 251-266, 1981.

16. J. D. Teasdale and S. J. Fogarty, Differential Effects of Induced Mood on Retrieval of Pleasant and Unpleasant Events from Episodic Memory, *Journal of Abnormal Psychology*, *88*, pp. 248-257, 1979.

17. E. T. Gendlin, R. Jenny, and J. M. Schlein, Counsellor Ratings of Process and Outcome in Client-centered Therapy, *Journal of Clinical Psychology*, *16*, pp. 210-213, 1960.

18. D. J. Kiesler, Patient Experiencing and Successful Outcome in Individual Psychotherapy of Schizophrenics and Psychoneurotics, *Journal of Consulting and Clinical Psychology*, *37*, pp. 370-385, 1971.

19. T. M. Tomlinson and J. T. Hart, A Validation of the Process Scale, *Journal of Consulting Psychology*, *26*, pp. 74-78, 1962.

20. T. M. Tomlinson and N. Stoler, The Relationship between Affective Evaluation and Ratings of Therapy Process and Outcome with Schizophrenics, *Psychotherapy: Theory, Research and Practice*, *4*, pp. 14-18, 1967.

21. F. vanderVeen, Basic Elements in the Process of Psychotherapy, *Journal of Consulting Psychology*, *31*, pp. 295-301, 1967.

22. A. M. Walker, R. A. Rablen, and C. R. Rogers, Development of a Scale to Measure Process Changes in Psychotherapy, *Journal of Clinical Psychology*, *26*, pp. 79-85, 1970.

23. E. T. Gendlin, J. Beebe, J. Cassens, M. Klein, and M. Oberlander, Focusing Ability in Psychotherapy, Personality and Creativity, in *Research in Psychotherapy* (Volume III), J. M. Schlein (ed.), The American Psychological Association, Washington, DC, pp. 218-239, 1968.

24. A. Fenigstein, M. F. Scheier, and A. H. Buss, Public and Private Self-consciousness: Assessment and Theory, *Journal of Consulting and Clinical Psychology*, *43*, pp. 522-527, 1975.

25. D. Watson and R. Friend, Measurement of Social-evaluative Anxiety, *Journal of Consulting and Clinical Psychology*, *33*, pp. 448-451, 1969.

26. M. Snyder, Self-monitoring of Expressive Behavior, *Journal of Personality and Social Psychology*, *30*, pp. 526-537, 1974.

27. D. Crowne and O. Marlow, *The Approval Motive*, Wiley, New York, 1964.

28. A. Richardson, *Mental Imagery*, Springer, New York, 1969.

29. J. Gordon, An Investigation into Some of the Factors that Favor the Formation of Stereotyped Images, *British Journal of Psychology*, *39*, pp. 156-167, 1949.

30. J. R. Stroop, Factors Affecting Speed in Serial Verbal Reactions, *Psychological Monographs*, *50*, pp. 38-48, 1938.

31. H. H. Witkin, P. K. Oltman, E. Raskin, and S. A. Karp, *A Manual for the Embedded Figures Test*, Consulting Psychologists Press, Palo Alto, California, 1971.

32. J. P. Guilford and J. S. Guilford, *Match Problems: Manual of Instructions and Interpretations*, Sheridan Psychological Services, Orange, California, 1980.

33. T. X. Barber and S. C. Wilson, Guided Imagining and Hypnosis, in *The Potential of Fantasy and Imagination*, A. A. Shiekh and J. T. Shaffer (eds.), Brandon House, New York, pp. 67-88, 1979.

34. A. Tellegen and G. Atkinson, Openness to Absorbing and Self-altering Experiences ("Absorption"), a Trait Related to Hypnotic Susceptibility, *Journal of Abnormal Psychology*, *83*, pp. 268-277, 1974.

35. J. E. Exner, *The Rorschach: A Comprehensive System*, Wiley, New York, 1974.

36. P. H. Pearson and S. R. Maddi, The Similes Preference Inventory: Development of a Structured Measure of the Tendency Toward Variety, *Journal of Consulting Psychology*, *30*, pp. 301-308, 1966.

37. G. S. Welsch, *Welsch Figure Preference Test*, Consulting Psychologists Press, Palo Alto, California, 1959.

38. L. A. Wolfe and G. R. vandenBos, Experiential Focusing: New Research Tools, University of Chicago, unpublished manuscript, 1970.

39. R. Carey, "An Examination of the Construct Validity of the Post-Focusing Questionnaire," University of Alberta, Edmonton, unpublished doctoral dissertation, 1979.

40. R. B. Cattell, The Skree Test for the Number of Factors, *Multivariate Behavioral Research*, *I*, pp. 245-276, 1966.

41. L. N. Rice and N. L. Gaylin, Personality Processes Reflected in Client Vocal Style and Rorschach Performance, *Journal of Consulting and Clinical Psychology*, *40*, pp. 133-138, 1973.

42. L. N. Rice and A. K. Wagstaff, Client Voice Quality and Expressive Style as Indexes of Productive Psychotherapy, *Journal of Consulting Psychology*, *31*, pp. 557-563, 1967.

43. S. M. Andersen and L. Ross, Self-knowledge and Social Inference: I. The Impact of Cognitive Affective and Behavioral Data, *Journal of Personality and Social Psychology*, *46*, pp. 280-293, 1984.

44. S. M. Andersen, Self-knowledge and Social Inference: II. The Diagnosticity of Cognitive/Affective and Behavioral Data, *Journal of Personality and Social Psychology*, *46*, pp. 294-307, 1984.

45. J. Cheeseman and P. M. Merikle, Word Recognition and Consciousness, in *Reading Research: Advances in Theory and Practice* (Volume 5), D. Besner, T. G. Waller, and G. E. MacKinnon (eds.), in press.

46. N. F. Dixon, *Preconscious Processing*, Wiley, Chichester, 1981.

47. F. J. McGuigan, Imagery and Thinking: Covert Functioning of the Motor System, in *Consciousness and Self-regulation*, G. E. Schwartz and D. Shapiro (eds.), Plenum, New York, pp. 37-100, 1978.

48. A. J. Fridlund and C. E. Izard, Electromyographic Studies of Facial Expressions of Emotions and Patterns of Emotions, in *Social Psychophysiology: A Sourcebook*, J. T. Cacioppo and R. E. Petty (eds.), Guilford Press, New York, pp. 243-286, 1983.

49. N. Bull, *The Attitude Theory of Emotion*, Johnson, New York, 1968.

50. J. Kantor and F. K. Zimring, The Effects of Focusing on a Problem, *Psychotherapy: Theory, Research, and Practice*, *13*, pp. 255-258, 1976.

51. E. T. Gendlin and L. Olsen, The Use of Imagery in Experiential Focusing, *Psychotherapy: Theory, Research, and Practice, 7*, pp. 221-223, 1970.

52. P. L. Wack, An Exploratory Study of Experiential Focusing, *Dissertation Abstracts International*, *34-B*, p. 1304, 1973-1974.

53. T. G. Turner, M. F. Scheier, C. S. Carver, and W. Ickes, Correlates of Self-consciousness, *Journal of Personality Assessment*, *42*, pp. 285-289, 1978.

54. D. Kuiken, Self-consciousness as a Component and Correlate of Focusing Ability, in *Imagery: Concepts, Results and Applications*, E. Klinger (ed.), Plenum, New York, pp. 231-238, 1981.

55. E. T. Gendlin, Imagery Is More Powerful with Focusing, paper presented at the Convention of the American Association for the Study of Mental Imagery, Los Angeles, 1979.

56. D. Wexler, Self-actualization and Cognitive Processes, *Journal of Consulting and Clinical Psychology*, *42*, pp. 47-53, 1979.

57. D. L. Paulhus, Two-component Models of Socially Desirable Responding, *Journal of Personality and Social Psychology*, *46*, pp. 598-609, 1984.

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HYPNOTIC HYPERMNESIA FOR SUBLIMINALLY ENCODED STIMULI: STATE-DEPENDENT MEMORY FOR "UNMONITORED" SENSATIONS

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ABSTRACT

In Experiment 1 and Experiment 2, respectively, eighty-five subjects and sixty subjects viewed nine facial caricatures for 1/150 sec per face, nine for 1/100 sec per face, and nine for 1/10 sec per face. Recognition memory for three of the 1/150, three of the 1/100, and three of the 1/10 sec faces was tested before hypnosis; memory for nine more faces was tested during hypnosis; memory for the last nine faces was tested after hypnosis. Before hypnosis, the recognition probabilities for 1/150 sec faces and 1/100 sec faces were at chance levels, and the recognition probability for 1/10 sec faces was better than chance. During hypnosis, recognition memory for 1/150 sec faces was again at the chance level. However, hypnotic recognition of 1/100 sec faces was better than chance, and hypnotic recognition of 1/10 sec faces was no better than chance. Consistent both with cognitive-state monitoring theory and with state-dependent theories of memory, these results indicate that memory for subliminally perceived targets (1/100 sec faces) is facilitated by the hypnotic state.

The present study tests the hypothesis that subliminal perception and hypnotic perception are similarly encoded "altered states of perception." Such an hypothesis follows from Kunzendorf's theory of cognitive-state monitoring and leads to predictions of hypnotic hypermnesia for subliminal stimuli [1].

According to cognitive-state monitoring theory, both the subliminal percept and the hypnotic percept are composed of "unmonitored" sensations: that is,