

for the depressed and nondepressed group, respectively. A one-way analysis of variance showed a significant difference between the two groups ($F = 13.3$, $p = .0004$). The overlap in groups' scores indicates that considerable caution is required in predicting depression in individual cases. The percent of false negatives, that is, those who are depressed and score 50 or less on the Depression index is very small, i.e., 6% or 5 cases. Percents for the mild to moderate range, moderate to severe, and severe depression ranges are 19%, 35%, and 40%, respectively. For the nondepressed group percents are 29%, 25%, 21%, and 25%. So the whole group practically falls in the depressed range, with the highest percent being severe depression (total = 36%). In Gabrys' study fewer depressed and nondepressed patients fell into the severe depression range.

The Zung scale discriminates between depressed and nondepressed patients. In individual cases, however, the considerable overlap in groups' scores does not help much predicting depression. This is not an invalidation of the scale, considering the occurrence of depressive complaints in patients diagnosed otherwise. One would hope the false positive rate should be lower but this seems to be in part a matter of patient selection. In the nondepressed group, patients diagnosed as schizophrenic had the lowest Zung total scores. Significance was not tested because the number of patients was small. More homogeneous groups would probably show greater differences on the Zung scale.

Sex influences the Zung total score. Women scored higher than men. The selection and matching of patients in experimental designs should address this matter. Different norms for men and women should be used in clinical practice.

REFERENCES

- DIJKSTRA, P. Een vergelijking van de zelfbeoordelingschaal voor depressie van Zung en de D-schaal van de MMPI in een poliklinische setting. In A. P. Cassee, P. E. Boeke, & J. T. Barendregt (Eds.), *Klinische Psychologie in Nederland 2*. Deventer: Van Loghuen Slaterus, 1973.
- GABRYS, J. B., & PETERS, K. Reliability, discriminant and predictive validity of the Zung Self-rating Depression Scale. *Psychological Reports*, 1985, 57, 1091-1096.
- ZUNG, W. K. A self-rating depression scale. *Archives of General Psychiatry*, 1965, 12, 63-70.

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LEVELS OF EMOTIONAL DEVELOPMENT WITH EXPERIENCED LEVELS OF EMPTINESS AND EXISTENTIAL CONCERN

CLIVE G. HAZELL

*Chicago, Illinois*¹

Summary.—Using a sample of 61 male students the relations between level of emotional development, according to Dabrowski and Piechowski's theory of positive disintegration, and experienced levels of emptiness, existential concern, and depression were examined to see if earlier findings are supported. A positive correlation was noted between level of emotional development and emptiness, confirming the earlier study. These findings support the idea that the emotional development involves the conscious experiencing of emptiness but they do not support similar notions with regard to existential concern and depression.

It was the purpose of this study to see whether the findings of Hazell (1984a) could be replicated, namely, observe a positive correlation between level of emotional development and experienced levels of emptiness and existential concern.

METHOD

Subjects

The 61 subjects were men, ranging in age from 18 to 38 yr. old; all were diploma students in a technical institute in a large midwestern city. All had high school diplomas, 6 had associate degrees, and 1 had a baccalaureate. Fifty were single, 8 married, 2 divorced, and 1 separated.

Materials

The questionnaire to measure experienced levels of emptiness and existential concern, developed by Hazell (1984b), the definition/response instrument to measure level of emotional development (Gage, Morse, & Piechowski, 1978), the Costello-Comrey Depression scale (1967), and a brief demographic questionnaire were administered, in that order.

The questionnaire to measure experienced levels of emptiness and existential concern is a 17-item, Likert-scaled questionnaire developed with an adequate sample and having acceptable reliabilities.

The definition/response instrument is a six-item paper-and-pencil free-response questionnaire that measures level of emotional development according to Dabrowski and Piechowski's theory of positive disintegration (Dabrowski & Piechowski, 1977). The model posits five levels of emotional development. Descriptions of the definition/response instrument, its development and rationale are given by Gage, Morse, and Piechowski (1978) and by Lysy and Piechowski (1983).

The Costello-Comrey Depression scale is a 14-item Likert-scaled questionnaire that measures intensity of depressive affect. A description of the Costello-Comrey instrument and discussion of its development can be found elsewhere (Costello & Comrey, 1967). It was hypothesized that levels of experiences of emptiness, existential concern, and depression will increase with increased emotional development. Such an increase is predicted by the theory of

¹J. D. Hazell Associates, 3166 N. Lincoln, Chicago, Illinois 60657, USA.

positive disintegration. At level one the individual is rather concrete, averse to introspection, lacking a capacity for experiences of guilt, concern for others, empathy, and self-criticism. At level two (sometimes referred to as the stage of "many selves") the relatively cohesive self of level one disintegrates into a multiplicity of disconnected, fragmentary selves with little sense of one self having priority or ascendance over another. Dabrowski terms this level "unilvel disintegration." This interior landscape should indeed be fertile ground for the development of the experience of emptiness.

At level three the state of disorganization of the self continues. However, the individual develops a moral sense and the selves become hierarchically arranged into "higher" and "lower." Existential concerns, that is, concerns regarding authenticity, death and meaning, emerge, and the depression and emptiness take on a different form from level two. This is the level of existential concern, existential depression, and existential emptiness.

Procedure

Subjects volunteered from psychology classes in an urban technical college for about an hour to complete questionnaires and received no payment. Instructions on how to complete the questionnaires were written. Anonymity of the subjects was preserved by using code numbers.

This is a different sample from the Hazell (1984) study. That sample included students in the social sciences. These are all technical students. Most of the 1984 subjects were female. Present subjects are men. This sample is different in terms of sex and vocational choice from that in the 1984 study. To find confirming data from a different group would support the notion that the hypotheses have a more general validity.

The definition/response instruments were rated by two independent trained raters, and interrater reliability of the scores derived from these instruments was .65 ($p < .01$), using the Pearson product-moment coefficient. The two raters agreed upon a consensus rating of level for each subject. This interrater reliability is low, lower than is usual in studies using the definition-response instrument. Hazell (1984a), Lysy (1979), and Beach (1980) reported interrater reliabilities of .79, .77, and .67, respectively.

The individual raters' ratings correlated with the consensus rating, with r s of .83 and .89 ($p < .01$).

It was hypothesized that present results would confirm those of the earlier study (Hazell, 1984a), in which positive Pearson correlations between levels of emotional development and experienced levels of emptiness, existential concern, and depression were observed. Also an analysis of variance was performed for each pair of variables hypothesized to be significantly associated.

RESULTS AND DISCUSSION

The means, standard deviations and ranges of all the variables are given in Table 1. Sixteen subjects were assigned level one of emotional development

TABLE 1
MEANS, STANDARD DEVIATIONS, AND RANGES
FOR ALL VARIABLES

Variable	<i>M</i>	<i>SD</i>	Range
Emptiness	3.4	1.7	1.5—12.4
Existential Concern	7.3	2.4	2.4—12.2
Depression	2.5	.8	1.1—5.5
Level of Emotional Development	1.8	.4	1.0—2.7
Age, yr.	22.0	5.9	18.0—38.0

ment while 43 were at level two, and 2 were at level three. The averages for Experienced Level of Emptiness, Existential Concern, and Depression by level of development are shown in Table 2.

TABLE 2
MEANS OF EMPTINESS, DEPRESSION, AND
EXISTENTIAL CONCERN BY EMOTIONAL DEVELOPMENT

Level	<i>n</i>	Emptiness		Existential Concern		Depression	
		<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
One	16	2.5	.9	7.0	.6	2.2	3.0
Two	43	3.6	2.0	7.3	2.7	2.5	.1
Three	2	2.8	1.5	6.7	.7	2.3	1.1

Analyses of variance showed that only the difference between mean Experienced Levels of Emptiness at the first and second levels of emotional development was significant; see Table 3.

TABLE 3
ANALYSIS OF VARIANCE: EXPERIENCED LEVELS OF EMPTINESS AT LEVELS OF
EMOTIONAL DEVELOPMENT ONE AND TWO

Source	<i>SS</i>	<i>df</i>	<i>MS</i>	<i>F</i>
Level of Emotional Development	13.5	1	13.5	4.8*
Level of Emptiness, Error	161.5	57	2.8	
Total	175.0	58		

* $p < .05$.

Pearson correlations gave similar information. Experienced Level of Emptiness and Level of Emotional Development correlated 0.26 ($p < .05$), including subjects at all three levels of emotional development; see Table 4.

TABLE 4
VALUES OF PEARSON *r* FOR DEPRESSION, EXPERIENCED LEVELS OF EMPTINESS,
LEVEL OF EMOTIONAL DEVELOPMENT, AND EXISTENTIAL CONCERN

	1	2	3	4
1. Depression		.75†	.07	.16
2. Emptiness			.26*	.60†
3. Level of Emotional Development				.16
4. Existential Concern				

* $p < .05$. † $p < .01$.

Present findings are consistent with those of Hazell (1984a), i.e., a correlation between levels of emotional development and experienced level of emptiness; however, Hazell's (1984a) positive correlations between level of emotional development, depression, and experienced level of existential con-

cern are not replicated. While this study has limitations, it does support the notion that the conscious experience of emptiness is related to observed level of emotional development as measured.

As was observed by Hazell (1984b), there is a significant correlation between depression and emptiness and also emptiness and existential concern. However, it was again noted that depression and existential concern and also depression and level of emotional development were not significantly correlated. This again supports the notion that emptiness and depression are different aspects of experience.

REFERENCES

- COSTELLO, C. G., & COMREY, A. L. Scales for measuring depression and anxiety. *Journal of Psychology*, 1967, 66, 303-313.
- BEACH, B. J. Lesbian and nonlesbian women: profiles of development and self-actualization. Unpublished Ph.D. thesis, Univer. of Iowa, Iowa City, IA, 1980.
- DABROWSKI, K., & PIECHOWSKI, M. M. *Theory of emotional development*. Oceanside, NY: Dabor, 1977.
- GAGE, D., MORSE, P., & PIECHOWSKI, M. M. Measuring levels of emotional development. *Genetic Psychology Monographs*, 1978, 103, 129-152.
- HAZELL, C. G. Experienced levels of emptiness and existential concern with different levels of emotional development and profile of values. *Psychological Reports*, 1984, 55, 967-976. (a)
- HAZELL, C. G. Scale for measuring experienced levels of emptiness and existential concern. *Journal of Psychology*, 1984, 117, 177-182. (b)
- LYSY, K. Z. Personal growth of counselors and non-counselors: a Jungian and Dabrowskian approach. Unpublished Ph.D. thesis, Univer. of Illinois at Urbana-Champaign, 1979.
- LYSY, K. Z., & PIECHOWSKI, M. M. Personal growth, an empirical study using Jungian and Dabrowskian measures. *Genetic Psychology Monographs*, 1983, 108, 267-320.

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SITUATIONAL IMPORTANCE, AFFECT, AND CAUSAL ATTRIBUTION¹

MARY S. SHAUGHNESSY

Learning Evaluation Center, Charles County Board of Education

HEDWIG TEGLASI

University of Maryland

Summary.—Causal attributions, expectancies, past frequency of occurrence, and affect of 50 fifth grade children were compared in important and unimportant negative social situations. Important negative social situations were rated as having more global causes, being more upsetting, having greater frequency of past occurrence, and greater expectancy of future occurrence than unimportant situations. Sex interacted with importance for causal attributions. Sex differences in causal attributions emerged for important but not for unimportant situations. Children's free-response explanations for why situations were important or unimportant were also examined.

Attribution researchers are concerned with exploring the relationship between individuals' perceptions of what "caused" a particular outcome and other variables such as emotional reaction to the event. Weiner (1985) discussed two relatively independent sources of affect, outcome-generated and attribution-generated. Specific affects such as pride or guilt are associated with causal dimensions which are basic properties of all causes. These specific emotions have motivational implications which influence expectancy and direct subsequent action (Weiner, 1985; Weiner, Russell, & Lerman, 1978, 1979). In contrast, general feelings of happiness or unhappiness are independent of causal attributions but are associated with positive or negative outcomes (Kelley, 1983; Weiner, *et al.*, 1978, 1979). Graham and Weiner (1986) suggest that happiness and sadness represent less cognitively mediated reactions to good or bad outcomes than do affects such as pride or gratitude which are determined by perceived causes. Despite the greater intensity of the outcome-dependent feelings, they are considered more fleeting than emotions which are linked to attributions (Graham & Weiner, 1986; Weiner, Kun, & Benesh-Weiner, 1980).

Little consideration has been given to the role of importance or centrality of the situational outcome as a determinant of affect or as influencing causal perceptions. Common sense would suggest that one would not get intensely emotional about an event which is not important. Failure on important tasks leads to greater depression, anxiety, performance deficits and loss of self-esteem than does poor performance on unimportant tasks

¹Correspondence should be directed to H. Teglas, Ph.D., Counseling and Personnel Services, College of Education, University of Maryland, College Park, MD 20742.