Employment Expectation Profiles as a Differential Measure of Employment-Relevant Attitudes Towards People with Disabilities

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Abstract — The ability of the Employment Expectation Questionnaire-Beta version (EEQ-B) to differentially describe employment relevant attitudes towards people with disabilities was investigated. Labels of cognitive disability and gender were manipulated in an analog study. Respondents from a convenience sample of students read stimulus material concerning a job and job applicant and then rated the applicant's qualification for the job. A significant effect was found for disability, but not for gender or interaction effects. Post hoc contrasts suggest that labels of cognitive disability (mental retardation, mental illness, and traumatic brain injury) had a differential effect across the factors of the EEQ-B.

The value of researching attitudes towards workers with disabilities is predicated on the following assumptions: (a) Employment-relevant attitudes can be identified, described, and measured; (b) the attitudes of significant others can mediate employment outcomes for people with disability; and (c) counselor efforts can effect positive change in employment-relevant attitudes. The study of employment-relevant attitudes towards people with disabilities has been a vital point of professional inquiry for several decades (Greenwood & Johnson, 1987). Employer attitudes are thought to be of particular value, given the potential amount of control they possess over employment outcomes (Levy, Jesop, Rimmerman, Francis, & Levy, 1993; Millington, Szymanski, & Hanley-Maxwell, 1994). Yet relevant attitudes remain difficult to define (Diksa & Rogers, 1996), measure (Schmelkin, 1988), and, consequently, to change (Greenwood & Johnson, 1987).

The productive study of attitudes towards people with disabilities, has been a challenge to investigators (Millington, Strohmer, Reid, & Spengler, 1996; Yunker, Block, & Campbell, 1960) for decades. Often, the subject of research are attitudes per se, with behavioral, cognitive, and affective aspects of attitudes receiving less attention (Grand, Bernier, & Strohmer, 1982; Marinelli, 1974; Millington et al., 1996). Generally, attitudes towards people with disabilities are thought to be complex and differentiated by disability category (Fuqua, Rathbun, & Gade, 1984), severity (Weller & Aminadav, 1989), attribution (Bordieri & Drehmer, 1987), and context (Gordon, Minnes, & Holden, 1990; Grand et al.,

1982). But descriptive knowledge of attitudes without reference to subsequent cognition and behaviors ignores the motive for studying the construct in the first place: Attitudes are thought responsible for bias in decision-making processes that result in discriminatory behaviors. Future strategies for studying disability attitudes must identify relevant attitudes by context, and attempt to link them to process and outcomes.

In the context of the workplace, employment expectations may provide a more utilitarian conceptualization of employment-relevant attitudes. Where attitudes tend to be context-free generalized value statements (e.g., cosmetic aversion, net affect; Kohler & Graves, 1973), expectations are context-specific prediction of behavioral outcomes (e.g., reliability, social integration; Millington et al., 1994). Attitudes shape expectations (Gordon et al., 1990), which are realized in the criteria of employment selection. Thus expectations are a surface representation of underlying attitudes that have the advantage of being tied to observable and measurable behaviors.

Millington et al. (1994) conceptualized employment expectations as predictions of job relevant behavior used by employers as criteria of screening and hiring new employees. In employment selection the goal of the employer is to acquire the most desirable worker. From the employer perspective, the most desirable worker is the one who will minimize cost and maximize productivity (Millington, Asner, Linkowski, & Der-Stepanian, 1996). Screening criteria are behaviors associated with worker cost to the organiza-

tion. Hiring criteria are behaviors associated with benefit to the organization. The employer's challenge is to use these criteria to predict which applicant will provide the most profitable mix of work-relevant behaviors.

Millington, Reid, and Leierer (1997) suggest that a large number of work relevant behaviors are possible criteria of selection, but that these behaviors group around a much smaller set of factors, and that these factors provide the structure for employer decision-making. The authors have identified five factors including: (a) Job knowledge/production skills, the knowledge, skills, and abilities a worker has, or develops on the job, that effect ability to get the job done; (b) socialization and emotional coping skills, the social skills the worker has that effect ability to get along with coworkers and supervisors and cope with stress in the workplace; (c) trainability/task flexibility, the academic and thinking skills a worker has that effect ability to learn new skills, and be flexible in taking on new tasks; (d) dependability, the behaviors that demonstrate accountability for time-on-task; and (e) motivation/satisfaction, the behaviors that indicate commitment to and satisfaction with work. While the factors surfaced are non-inclusive and strictly preliminary, there is some empirical and theoretical support for their role in employment selection (Bills, 1988; Bluestone, 1989; Christman & Slaten, 1991; Krefting & Brief, 1977; Pooley & Bump, 1993). This model for investigating employment-relevant attitudes suggests that disability-related attitudes may be differentiated across the factors of selection; that attitudes should be definable in terms negative or positive distortions of expectations; and that distortions in expectation profiles may result in biased employment outcomes.

This study is a continuation of the analysis initiated in Millington et al. (1997). Whereas the previous analysis identified potential factors of employment selection, this analysis addresses the descriptive nature of expectation profiles. In this study we examine the effect of cognitive disability labels and gender on expectation profiles.

Method

Experimental, postmeasure-only and descriptive post hoc elements were included in the research design (Pedhazur & Schmelkin, 1991) to address the following research hypothesis: Labels of cognitive disability and gender will have a differential effect on employment expectation profiles.

The independent variables were gender (male, female) and cognitive disability label status, a categorical variable with four levels: No label (control), mental retardation (MR), mental illness (MI), and traumatic brain injury (TBI). The dependent variables were factor scale scores making up the employment expectation profile from the employment expectation questionnaire-beta version (EEQ-B). These continuous variables were described as: (a) Acquired job competencies, socio-emotional coping skills, general educational development, dependability, and motivation. Good

internal consistency was reported for the factor based scores with Chronbach's alphas ranging from .94 to .87.

A convenience sample derived from college students attending three mid-western universities was generated. Respondents were recruited by flyers posted on campus, and through personal contacts made by the researchers. A total of 323 completed questionnaires were returned. After removing outliers (Tabachnik & Fidell, 1983), 319 questionnaires were deemed suitable for analysis. The median age of the sample was 22 years, ranging from 18 to 56 years. The sample was predominately female (74%), Caucasian (91%), and identified as not having a disability (92%). Respondents were randomly assigned to one of eight treatment combinations (disability label X gender).

An analog study was employed, in which the respondents assumed the role of a restaurant manager in the process of hiring a person for the job of dishwasher. Respondents read the Dictionary of Occupational Titles description of a dishwasher (D.O.T., 318.687-010). A fictitious narrative describing an applicant for the job of dishwasher was introduced. Information contained in the narrative described "Pat", a job applicant, in which gender and disability label status were manipulated. After reading the narrative, the respondents were directed to evaluate the applicants' qualification using the EEQ-B. Stimulus material is available for perusal (Millington et al., 1997).

Results

A completely crossed factorial MANOVA was used to test the null hypotheses negating disability, gender, and disability X gender interaction effects. Prior to subjecting the factor based scores to parametric multivariate analysis, statistical assumptions were tested. Computed z-scores for skewness and kurtosis ($z > \text{critical value } 1.96$) were not significant, suggesting acceptable normality. The multivariate assumption of homogeneity of dispersion was not rejected (Box's $M = 70.95$; $p > .001$).

The combined effect of the dependent variables were significant for disability label status ($F(3, 311) = 3.17$, $p < .001$), but not for gender ($F(1, 311) = 0.47$, $p > .05$). or for label x gender interaction ($F(3, 311) = 0.45$, $p > .05$). Thus only the null hypothesis for disability label status, "The centroid of the linear composite of factor scores does not differ based on group disability label status," was rejected.

Joint-univariate contrasts were run on label status for each factor as a post-hoc exploration of the difference between label groups (see Table 1). Simple contrasts comparing means of the three disability label groups with the control group mean were performed.

A Bonferroni technique was used to control for inflation error. Effects are suggested in expectations for socio-emotional coping skills and general educational development in the mental retardation label group; for socio-emotional coping, dependability, and motivation expectations for the mental illness label group, and motivation expectations for the traumatic brain injury label group.

Table 1
Contrast of Factor Means

Factor	Means			
	Control	Mental Retardation	Mental Illness	Traumatic Brain Injury
Acquired job competencies	1.79	1.38	1.86	1.93
Socio-emotional coping skills	-.86	-.09*	-.19*	-.29
General educational development	.48	-.02*	.45	.68
Dependability	1.66	2.02	2.19*	2.16
Motivation	1.10	1.55	1.75*	1.78*

Note. Means of disability label groups were contrasted with the control (no label) group.

*p>.05.

Discussion

The primary purpose of this study was to demonstrate how contextually relevant attitudes towards people with disabilities and gender may be expressed and measured in the criteria of employment selection. To this end, labels of cognitive disability and gender were used to generate a biasing effect in the evaluation of applicant qualification. In this pilot study, the employment expectation profiles provided by the EEQ-B did not reveal a gender effect, but a small though significant effect for disability labels status was found, suggesting that disability labels do indeed effect overall evaluations. The EEQ-B profiles also provided descriptive differences between labels, when compared to the control group. These preliminary findings suggest that the EEQ-B employment expectation profiles may provide useful information in future examinations of the effect of disability information on employer attitudes in the context of employment selection.

Further interpretation of the results must be constrained by the limitations of the study. The convenience sample is helpful for the development of the pilot study, but the results cannot be generalized to employers or other stakeholder groups. However, findings of this study may be interpreted as speculative hypotheses concerning employer expectations that will require further investigation with a more meaningful sample.

A closer inspection of the contrasted means provides some interesting illustrations of the differences engendered by disability labels. The MR label group rating was significantly more qualified in socio-emotional coping skills, and significantly less qualified than the control group in general educational skills. The MI label group rating was significantly more qualified in both socio-emotional coping skills, dependability, and motivation than the control group. The TBI label group rating was significantly more qualified in motivation than the control group. In this study, most of the

bias introduced by labels favored the applicant with a cognitive disability. There are several potential explanations for these findings. First, the information contained in the label may be interacting with information contained in the stimulus material. The control groups consistently low ratings in dependability, motivation, and socio-emotional coping skills suggests that disability labels created a positive halo effect (Nisbett & Wilson, 1977), dampening the impact of negative information imbedded in the stimulus material. Second, the findings may be related to the nature of the sample. Given that the sample was drawn from rehabilitation counseling programs as well as generally through the campus, it is possible that the effect is due in part to a bias of professional advocacy. While still other possible explanations exist, these findings suggest that disability status may engender positive or negative attitudes, in complex combinations. Whether or not these polar tendencies have a similarly differentiated effect on employment outcomes is, perhaps the most intriguing question left for future attitude research.

The EEQ-B is the current iteration of a pilot instrument that attempts to identify and describe stakeholder expectations in employment performance outcomes. Expectations are often potent precursors to success or failure in social situations, including work. The expectations of both workers and employers are productive topics for career and vocational counseling. For instance, rehabilitation counselors may use the EEQ to develop systemic interventions in the selection process by surfacing criteria of selection and drawing attention to potential bias; or as a means to identify and describe conflicts in work adjustment due to poor correspondence between worker and employer perceptions of worker satisfactoriness. Potential utility and promising findings thus far suggest that further development and refinement of the EEQ-B is warranted.

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