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# Meaning Ascribed to Major Professional Concepts: A Comparison of Occupational Therapy Students and Practitioners in the United States and Israel

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*A number of concepts related to human performance, such as occupation, purposeful activity, function, work, doing, and play/leisure, are widely used in occupational therapy. Because these concepts are essential to the profession, we seek to understand their meaning. Many theorists in occupational therapy define and attribute different levels of importance to each of these concepts. The present study examines the professional (student vs. practitioner) and universal (American vs. Israeli) meanings of the six concepts named above. Four statistical methods were used: (a) a multivariate analysis of variance, (b) t tests and a sign test to analyze the Osgood semantic differential, and (c) Individual Differences in Multidimensional Scaling (Carroll & Chang, 1970). The results indicate that the American occupational therapists ascribed higher affective meanings than did all of the other groups to the concepts of purposeful activity, function, doing, and work. No difference was found for occupation and hobby, which rated high for all groups. Differences in the dimensions underlying the concepts between American and Israeli subjects suggest a cultural and linguistic influence on the meaning ascribed to the concepts.*

Productive and meaningful human performance is fundamental to occupational therapy philosophy, theory, and practice. At all three levels, the basic concepts of human performance such as occupation, purposeful activity, function, work, doing, and play/leisure are used. The definitions of these concepts vary, however, throughout the occupational therapy literature, and usually one or more of them are used to define another concept. Moreover, each of the profession's theoretical approaches emphasizes different concepts, defines them in different ways, and argues their importance over the use of other concepts. Only two concepts—work and play/leisure—appear in the American Occupational Therapy Association's (AOTA's) 1979 and 1989 *Uniform Terminology*.

The various definitions and levels of importance attributed to key concepts in the profession represent not only the process of the development of the terminology, but also the ideology of occupational therapy. Clarification of the perceived meanings of these concepts among occupational therapists from different cultures and between professionals and nonprofessionals, therefore, can contribute to an understanding of the language we use and the ideas we communicate.

## Six Concepts of Human Performance

*Function.* Function, according to Cynkin (1979), correlates with health, which "is manifested in the

ability of the individual to participate in socioculturally delineated and prescribed activities with satisfaction and comfort" (p. 33). Ill health is seen as dysfunction, or the inability to carry out activities of daily living.

In the same vein, Mosey (1986) defined function-dysfunction on a continuum of health that was applicable to any frame of reference. "A gradation is implied from total inability to engage in a particular function to complete mastery of that function. Function is considered to be relative to age, cultural background, and present life situations" (Mosey, 1986, p. 379). Kielhofner (1985) outlined six levels of occupational function as a continuum of function-dysfunction from achievement to helplessness as degrees of adaptive behavior. Allen (1985) presented six cognitive (functional) levels to describe the function-dysfunction continuum. Similarly, the concept of function as health is implied in all occupational therapy approaches and can be seen in the premise that "functional restoration is the primary objective of rehabilitation" (Spencer, 1988, p. 435).

*Doing.* Gail Fidler conceptualized doing as the process that leads to healthy function and performance. "The word doing is meant to convey the sense of performing, producing, or causing. It connotes purposeful action in contrast to random activity, in that the action is directed toward the intrapersonal (testing a skill), the interpersonal (clarifying a relationship), or the nonhuman environment (creating an end-product)" (Fidler & Fidler, 1983, p. 268). Doing, which is the engagement in purposeful activity, is the essence of learning, a dynamic adaptive and integrative process. It is the intervention of choice in enabling the emergence of function and performance (Fidler & Fidler, 1978, 1983).

*Purposeful activity.* Mosey (1986) and many others used the concept of purposeful activity. "Purposeful activities are defined as doing processes that require the use of thought and energy and are directed toward an intended or desired end result" (Mosey, 1986, p. 227). Individuals' perceptions of purpose are related to the values and needs of their culture and to their own needs and goals. Purposeful activity is considered one of the major legitimate tools (Mosey, 1981, 1986) in occupational therapy. Purposeful activity is the goal-directed use of a person's resources, time, energy, interest, and attention (Clark, 1979). "Activity becomes purposeful when the nature of and participation with the activity/event facilitates meaningful responses for the nervous system. Responses become meaningful when the feedback associated with actions provides directions and efforts that are more mature or at a higher level than those previously experienced. Thus, purposeful activity augments neural mechanisms and sensorimotor-

sensory integration" (Gilfoyle, Grady, & Moore, 1981, p. 135).

Ayres (1979) defined occupational therapy as "a profession that employs a purposeful activity to help the client form adaptive responses that enable the nervous system to work more efficiently" (p. 183). Ayres's use of the term purposeful activity is compatible with Mosey's (1986) conceptualization of purposeful activity as a major legitimate tool of occupational therapy. As can be seen, the two concepts—doing and purposeful activity—are used to define each other, but it seems that doing connotes the process, whereas purposeful activities are the means or tools to achieve the therapeutic goals. One can argue that the concepts of doing and purposeful activity augment each other.

*Occupation.* The authors who have used the concept of occupation suggested that occupational behavior is the doing process, whereas occupation, which comprises self-care, work, and play/leisure, is the purposeful activity. For example, Evans (1987) defined occupation as "the active or 'doing' process of a person engaged in goal directed, intrinsically gratifying, and culturally appropriate activity" (p. 627). Burke (1983) defined occupation as "a behavior which is motivated by an intrinsic, conscious urge to be effective in the environment in order to enact a variety of individually interpreted roles that are shaped by cultural traditions and learned through the process of socialization" (p. 136). Furthermore, three subsystems were conceptualized by Kielhofner and Burke (1985) as determinants and components of human occupation, in which each subsystem is responsible for a different aspect of occupational behavior.

Reed and Sanderson (1983) defined occupations as "activities or tasks which engage a person's resources of time and energy. Specifically, self maintenance, productivity, and leisure" (p. 247). Occupational analysis refers to the study of these occupations and their use in therapy (Cubie, 1985), analogous to the concepts of activity analysis (Hopkins & Smith, 1988; Mosey, 1986) or task analysis (Allen, 1985), although other attributes are used in these analyses.

In a recent attempt to define the term occupation, Nelson (1988) suggested that "it can be thought of as the relationship between occupational form and occupational performance. Occupation always refers to the occupational performance of an occupational form (i.e., the doing of something or the engaging in something)" (p. 633). Additionally, Nelson said that "occupational performance is the doing, the action, the active behavior. . . within the context of an occupational form" (p. 634). Here too, a dual meaning of process (performance) and context (form) is presented.

*Work and play/leisure.* The two concepts of work and play were conceptualized by Reilly (1974) on a developmental continuum in which play activities were seen as preparing the individual for work roles. Kielhofner and Barris (1985) elaborated this continuum in terms of the development and transformation of work, play, and daily living tasks as the components of human occupation along the life span.

The profession's accepted definition of work is that "work refers to skill and performance in participating in socially purposeful and productive activities. These activities may take place in the home, employment setting, school, or community" (AOTA, 1979, p. 12). Such activities include home management, care of others, educational activities, and vocational activities (AOTA, 1989). At the same time, play/leisure "refers to skill and performance in choosing, performing, and engaging in activities for amusement, relaxation, spontaneous enjoyment, and/or self-expression" (AOTA, 1979, p. 13). These activities include play or leisure exploration and play or leisure performance (AOTA, 1989).

A difference between children's play activities and adult leisure activities was emphasized by Reed (1984), who said that play is seen as preparation for adults' work and leisure. Reed defined leisure as "activity to which the individual turns at will for either relaxation, diversion or broadening of knowledge" (p. 263). In this sense, the concept of *hobby* was used in our study as a leisure activity to which adults relate.

This state of the art regarding conceptualizations and definitions of major concepts in occupational therapy's literature raises some basic questions, three of which this study addressed:

1. Does the process of socialization to the profession have an influence on the concepts' meaning?
2. Are the meanings ascribed to these concepts universal or are there cultural differences?
3. What are the underlying dimensions for any differentiation among these concepts?

## Method

### *Subjects*

The study's population was a convenience sample consisting of two groups of first-year occupational therapy students at Hebrew University in Jerusalem ( $n = 25$ ) and at New York University ( $n = 53$ ) and two groups of occupational therapy practitioners in Israel ( $n = 43$ ) and in the New York City area ( $n = 33$ ). A total of 154 subjects (146 women and 8 men) participated in the study in both countries in the 1986–87 academic year. Among the 76 practitioners, the years of experience ranged from 0 to 24 years, with an almost even distribution. The specialty areas were as

follows: 33%, developmental disabilities; 14%, geriatrics; 29%, mental health; and 19%, physical disabilities. The remaining 5% worked in unidentified specialties.

Ten subjects from each of the four groups were selected randomly to serve as the sample used for the Individual Differences in Multidimensional Scaling (INDSCAL) (Wish & Carroll, 1974) method of analysis.

Although the study samples do not present a true representation of Americans and Israelis because the students were selected from only one school in each country and the American practitioners were selected from only one geographic area in the United States, hereafter, for convenience, they will be referred to as American and Israeli practitioners or students. All subjects consented to participate.

### *Instrument and Procedure*

A two-part questionnaire was developed for this study. Section 1 used the Osgood semantic differential, which consists of 16 judgment scales (bipolar adjectives) for which each pair of words is judged on a 7-point scale (from a low of 1 to a high of 7). Osgood and his colleagues found that the scales elicited three affective factors—evaluation, power, and action (Heise, 1965; Kerlinger, 1973; Osgood, 1974; Osgood, May, & Miron, 1975; Osgood, Suci, & Tannenbaum, 1957).

At the top of each page of Section 1, one of the six concepts was placed in the following order: occupation, purposeful activity, function, work, hobby, and doing. The subjects were asked to mark an  $x$  where they believed the concept would fall on each scale, depending on their perception and feeling at that moment. The purpose of this section was to measure the affective meaning ascribed to each of the concepts separately along the 16 scales and according to Osgood's three factors. The factor of evaluation encompassed 8 pairs; power, 4 pairs; and action, 4 pairs.

Kerlinger (1973) found the semantic differential instrument to be psychometrically sound, but stated that the "evaluation factor scores—sums or means . . . are the most useful in many behavioral research studies" (p. 577).

In occupational therapy, this instrument has been used frequently by Nelson and colleagues in studies related to the meaning of activities (Adelstein & Nelson, 1985; Banning & Nelson, 1987; Bloch, Smith, & Nelson, 1989; Carter, Nelson, & Duncombe, 1983; Henry, Nelson, & Duncombe, 1984; Kremer, Nelson, & Duncombe, 1984; Nelson, Thompson, & Moore, 1982; Rocker & Nelson, 1987; Steffan & Nelson, 1987). In all of these studies, the same short version of 12 scales that was recommended by Osgood et al. (1975) for English-speaking persons was used. This

version was used as is, despite the fact that one criterion in the construction of the instrument for a specific study is the relevance of the scales to the concepts studied and the second criterion is the factor representativeness (Kerlinger, 1973).

In the present study, therefore, the scales were chosen from lists Osgood studied, but their relevance to the concepts investigated was kept in mind (e.g., success/failure, important/unimportant, interesting/boring). Classic scales with factor representativeness were included (e.g., good/bad, strong/weak, fast/slow). In addition, the number of the evaluation factor's scales was increased to 8, as this factor was found to be the most useful in previous studies, including some of the occupational therapy studies where the evaluation factor was the only one to show significant differences.

The data are presented in this study with means and not with sums, as were used by Nelson and colleagues, because the number of scales in each factor was not equal. A high mean score on a factor refers to a high affective meaning given to a particular concept on this factor.

Section 2 comprised 15 scales of all pairs of the above six concepts. The scales presented degrees of difference between the pairs of concepts. The instructions were provided at the top of the questionnaire. The subjects were asked to base their judgment about the similarities and differences between each pair of concepts on a broad view of them. The rating scale ranged from *very different* (0) to *very similar* (9).

The purpose of this section was to measure how similar each concept was perceived to be to each of the other concepts in the list and to identify the underlying dimensions used by individuals or groups of subjects in judging similarities and differences. The subjects received a general description of the study, and their anonymity was assured.

#### Data Analysis

The data analysis included several procedures. A multivariate analysis of variance (MANOVA) was computed to analyze simultaneously the influence of socialization, defined as status (i.e., practitioners vs. students), and culture, defined as country (i.e., Americans vs. Israelis) on the affective meaning ascribed to the six concepts. Four  $2 \times 6$  (Country and Status  $\times$  Six Concepts) MANOVAs were computed for the total score and the three factors' scores of evaluation, power, and action. The MANOVA procedure minimizes error when one assumes, as we did, that the variables and concepts are dependent. To examine the dependency among the six concepts, we computed Pearson correlation coefficients. The results showed significant correlations among all concepts at

the level of significance  $p < .0001$ , thus confirming the dependency of the concepts.

Two sample  $t$  tests were computed for the concepts that showed significant differences between groups in the MANOVA.

A sign test was used for a profile analysis. We plotted the profiles of mean response patterns between comparison groups along a set of scales, according to Osgood's three factors. The assumption underlying this procedure is that if there are consistently greater means for one group, the statistical probability can be tested for its significance (Isaac & Michael, 1978; Kerlinger, 1973). The profile shows the pairs of adjectives used in the instrument.

The Carroll and Chang (1970) model of the INDSCAL was computed to identify the underlying dimensions used by the subjects to evaluate the six chosen concepts from the occupational therapy literature. This procedure uses the observed pairwise differences between stimuli as input and produces a plot of the subjects in the same space as the stimuli. The advantages of using this procedure are twofold; the identified dimensions are interpretable, in most cases, without rotation of the axes, and the importance that each subject puts on each dimension is distinguished. According to Wish and Carroll (1974), these aspects give the dimensions identified in the INDSCAL a special status; they are assumed to correspond to fundamental psychological processes that underlie the observed perception and they have varying degrees of salience for different persons. Thus the use of this instrument provides another analysis with which to identify criteria that affect the attribution of meanings to concepts by individuals from different cultures and professional status. It also allows one to identify the existence of factors beyond the three affective factors associated with the Osgood semantic differential.

The use of individual differences in INDSCAL allows the use of a relatively small sample. For the analysis of the INDSCAL, the data from each of the subjects were fed to the computer separately, resulting in 40 matrices (6 rows and columns) of similarities between 15 pairs of concepts.

#### Results

In examining both the influence of professional socialization and the universality of the affective meaning ascribed to the six concepts under investigation, we considered the interaction of two independent variables, that is, status (students vs. practitioners) and country (United States vs. Israel), on the six concepts.

Table 1 shows the significant results of the MANOVA analysis. No statistically significant interac-

**Table 1**  
**Multivariate Analysis of Variance (MANOVA) for Status and Country on Six Concepts, for a Total Score and Three Factors' Scores of Evaluation, Power, and Action (N = 154)**

Variable	F	p
STATUS MAIN EFFECT		
Total		
Purposeful activity	11.97	.001
Function	10.39	.002
Work	7.49	.007
Doing	8.55	.004
Evaluation		
Purposeful activity	12.66	.001
Function	7.87	.006
Doing	5.56	.02
Power		
Work	4.52	.035
Action		
Occupation	5.70	.018
Purposeful activity	5.98	.016
Function	9.34	.003
Work	14.38	.0001
Doing	11.23	.001
COUNTRY MAIN EFFECT		
Total		
Occupation	7.11	.009
Purposeful activity	4.43	.037
Evaluation		
Purposeful activity	4.97	.027
Power		
Occupation	16.93	.0001
Purposeful activity	7.54	.007
Function	16.93	.0001
Work	10.05	.002
Play/leisure	10.47	.001
Doing	8.66	.004
Action		
Function	4.81	.03

Note. No significant interaction was found in any of the analyses. Only significant results are presented.

tion between status and country was found for any of the six concepts.

Regarding the main effect of status, namely, concepts for which socialization to the profession show significant differences, many differences were found. Within the total scores, purposeful activity, function, work, and doing differ significantly; within the evaluation scores, purposeful activity, function, and doing differ significantly; within the power scores, only work differs significantly; and within the action scores, all of the concepts except play/leisure, differ significantly.

The *t* tests show that in all of the differences, the direction is toward the higher scores of the practitioners' groups from both countries (see Table 2), but among the practitioners themselves, the Americans have even higher scores, especially in the power factor (see Table 3).

Regarding the main effect of country, namely, the concepts for which culture presented significant dif-

ferences, the MANOVA analysis showed that within the total scores, occupation and purposeful activity differ; within the evaluation scores, only purposeful activity differs; within the power scores, all six concepts differ; and within the action scores, only function differs (see Table 1).

For the country main effect, the *t* tests show that all differences are higher for the Americans except for the concept function within the action factor (see Table 3). Thus, the main difference between the two national groups lies in the fact that the Americans attributed significantly higher power than the Israelis to all of the concepts.

A profile comparison of the groups for each concept along the scales with the sign test shows that the main differences exist between American students and American practitioners. A profile example for the concept of doing within the American sample is presented in Figure 1. This profile shows that except for the scale of clean/dirty, along all pairs of adjectives, practitioners ascribed higher meanings to the concept of doing. The adjectives of good, important, and active received the highest scores, especially with the practitioners. Looking at the factors' structure, evaluation and action appear to receive higher scores than power in both groups. These results, which are also in accordance with the MANOVA and *t*-test results, suggest that within the American group, the process of socialization to the profession has an influence in the perceived affective meaning of professional concepts.

We found it interesting that the scale of masculine/feminine was consistently scored in the opposite direction than the other scales, namely, the feminine pole received the most scores (mean score ranged from 3.0 to 3.9), whereas good, active, or important, for example, received mean scores of around 6.5, which is in the expected direction (see Figure 1). (In the masculine/feminine scale, the masculine pole is supposed to indicate high power, but according to our data, the feminine pole seemed to indicate high power.) This pattern is consistent among all groups in the study and may reflect the female composition of the study sample and the occupational therapy profession in general. It may also illustrate the underlying sexist assumptions in scientific instruments like the Osgood semantic differential feminine-masculine scale; apparently, for female professionals and students, feminine, rather than masculine, is high on the scale of the power dimension.

Using the INDSCAL analysis, we scaled the six concepts of occupational therapy that describe the focus of intervention in the profession. The 40 subjects sampled (10 from each of the four groups) rated the similarity between all possible pairs of concepts. A two-dimensional solution was accepted for these data. The percentage of variance accounted for by the

**Table 2**  
**Comparisons of Status (Students and Practitioners) (N = 154)**

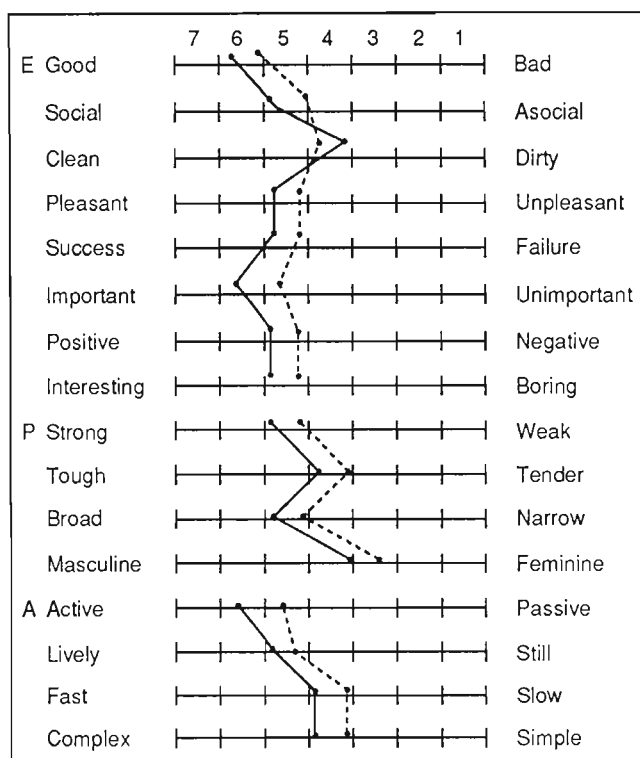
Status Main Effect	Americans			Israelis		
	Students <i>m</i> ( <i>SD</i> )	Practitioners <i>m</i> ( <i>SD</i> )	<i>t</i> test ( <i>p</i> )	Students <i>m</i> ( <i>SD</i> )	Practitioners <i>m</i> ( <i>SD</i> )	<i>t</i> test ( <i>p</i> )
Total						
Purposeful activity	5.16 (.62)	5.57 (.46)	3.50 (.001)	—	—	—
Function	5.08 (.74)	5.57 (.68)	3.16 (.002)	—	—	—
Work	5.23 (.63)	5.57 (.62)	2.50 (.01)	—	—	—
Doing	5.12 (.35)	5.40 (.57)	2.49 (.01)	—	—	—
Evaluation						
Purposeful activity	5.65 (.79)	6.01 (.50)	2.60 (.01)	5.40 (.52)	5.80 (.53)	3.03 (.004)
Function	5.47 (.89)	5.89 (.67)	2.50 (.01)	—	—	—
Doing	—	—	—	5.46 (.48)	5.78 (.79)	2.50 (.01)
Power						
Work	4.62 (.61)	5.10 (.74)	3.12 (.003)	—	—	—
Action						
Occupation	—	—	—	5.02 (.44)	5.40 (.82)	2.41 (.02)
Purposeful activity	4.49 (.57)	4.85 (.62)	2.69 (.009)	—	—	—
Function	4.63 (.72)	5.08 (.63)	3.05 (.003)	—	—	—
Work	4.62 (.61)	5.10 (.74)	3.12 (.003)	—	—	—
Doing	—	—	—	5.12 (.63)	5.59 (.66)	2.92 (.005)

Note. Comparisons are shown only for those variables with significant multivariable analyses of variance.

**Table 3**  
**Comparisons of Country (United States and Israel) (N = 154)**

Country Main Effect	Students			Practitioners		
	U.S. <i>m</i> ( <i>SD</i> )	Israel <i>m</i> ( <i>SD</i> )	<i>t</i> test ( <i>p</i> )	U.S. <i>m</i> ( <i>SD</i> )	Israel <i>m</i> ( <i>SD</i> )	<i>t</i> test ( <i>p</i> )
Total						
Occupation	5.41 (.32)	5.14 (.27)	3.00 (.004)	—	—	—
Purposeful activity	—	—	—	5.57 (.46)	5.28 (.46)	2.66 (.01)
Evaluation						
Purposeful activity	5.39 (.52)	5.65 (.79)	2.29 (.02)	—	—	—
Power						
Occupation	4.57 (.55)	4.22 (.54)	2.64 (.01)	4.80 (.59)	4.26 (.59)	3.98 (.0001)
Purposeful activity	—	—	—	4.85 (.62)	4.31 (.63)	3.75 (.0001)
Function	—	—	—	5.08 (.63)	4.39 (.62)	4.75 (.0001)
Work	—	—	—	5.10 (.74)	4.51 (.68)	3.56 (.001)
Play/leisure	4.31 (.65)	3.99 (.57)	2.61 (.01)	—	—	—
Doing	—	—	—	4.90 (.75)	4.44 (.68)	2.74 (.008)
Action						
Function	4.75 (.95)	5.31 (.62)	3.10 (.003)	—	—	—

Note. Comparisons are shown only for those variables with significant multivariable analyses of variance.



**Figure 1.** Profile of differences according to Osgood's three factors of evaluation (E), power (P), and action (A) between the American students and American practitioners for the concept of doing. Note. Some of the scales shown here were reversed and the order was random and not according to factors. For the sign test, differences were significant at  $p < .001$ . The solid line represents practitioners; the broken line represents students.

two-dimensional spaces is 52%. Although a third dimension explains an additional 10% of the variance, it presents an unclear space configuration of the concepts.

The differences in the distribution of concepts on the first and second dimension's space are difficult to interpret, if the four research groups are treated as a whole. Only a study of individual differences on these dimensions enables us to uncover their different meanings (the differences reflect the importance of the dimension to individuals and groups).

In the spatial distribution of all 40 subjects on the first dimension, we found that the weights of the American subjects were consistently higher than the weights of the Israeli subjects. In contrast, the weights for the second dimension were consistently higher for the Israeli subjects than for the American subjects. We concluded, therefore, that the first dimension is relevant to Americans but not to Israelis and that the second dimension is relevant to Israelis but not to Americans. Perhaps cultural and language differences affected the salience of the two dimensions for Israelis and Americans. The independent variable

of country seemed to show the main source of difference.

In evaluating the concepts of English- and Hebrew-speaking occupational therapists, we identified two concepts as the source of the differences. *Occupation* is used in Hebrew as an activity without a purpose, that is, to keep someone busy (this interpretation has been considered by Israeli occupational therapists to have severe consequences on the public's attitude toward the profession). Purposeful activity is also understood in Hebrew differently than in English: It relates to a structured and goal-directed activity. These language differences are especially reflected in the evaluation of the second dimension.

The first dimension was shown to have a cluster of three concepts on one pole—function, occupation, and work. On the opposite was the concept of play/leisure, whereas the concepts of purposeful activity and doing were found to be closer to the center. Thus, this dimension might distinguish between required activities (function, occupation, and work) on the one hand and leisure activities (play) on the other hand. This interpretation is reinforced by the fact that the concepts of doing and purposeful activity are found to be quite neutral (they are closer to the center) on this dimension. Indeed, these concepts are not discriminatory between the two poles of required versus leisure activities; they could be associated with both. Because this dimension is salient to Americans and not to Israelis, we called it *required versus leisure activities—American dimension*.

The second dimension has purposeful activity on one end of the pole and play/leisure and occupation on the other end. Function, work, and doing are clustered on the purposeful activity side of the pole, more to the center. Taking into consideration the meaning of purposeful activity and occupation in Hebrew and that this dimension is salient to Israeli subjects only, we labeled this dimension *goal directed versus free activities—Israeli dimension*.

## Discussion

The first two questions we raised regarding the effect of professional socialization and the universality of occupational therapy concepts appear to be partially interrelated. The overall results of this study indicate that the American practitioners differed the most from the other three groups by placing higher affective meanings on five of the six concepts. They differed from their Israeli counterparts, especially on the Osgood semantic differential power factor, which they perceived to be much stronger for all concepts except play/leisure.

The finding that the four concepts of purposeful activity, function, work, and doing differentiated most clearly between practitioners and students (practi-

tioners ranked them higher than did students) suggests that the concepts have a different and stronger affective meaning to practitioners in the field. Conversely, the concepts of occupation and play/leisure did not differentiate between practitioners and students (both groups gave high scores to both concepts). The lack of difference in the affective meaning ascribed to the concept of occupation, which is considered one of the major concepts discussed in the profession's literature (Burke, 1983; Evans, 1987; Kielhofner, 1985; Kielhofner & Barris, 1985; Reilly, 1974), is intriguing. The students as well as the practitioners gave high scores to this concept. This may suggest that because occupation is part of the profession's name, even new students who choose to study occupational therapy, although perhaps unaware of the meaning of the concept, highly value this word. Thus, we assume that although the two groups gave high scores, they did so for different reasons. Further study of this assumption may contribute to the understanding of the professionalization of the concept of occupation. That there was no difference for play/leisure might suggest a general value attributed to leisure activities in both cultures.

Looking at the differences separately within each of the cultural groups, one can see that the same four concepts are ranked higher by American practitioners than by American students, thus suggesting that these concepts reflect the socialization process to the profession within this American sample. In the Israeli sample, the finding of just a few significant differences between students and practitioners suggests either less effect of the socialization process in the affective meaning ascribed to these concepts or the irrelevancy of the Osgood semantic differential to uncover professional socialization in this group.

The only major cultural difference found was the higher power the American subjects gave to all concepts. The detailed analysis, however, shows that the difference is mainly between the practitioners of both countries and not between the students. Only a few inconsistent differences exist between the students of both countries. It appears, therefore, that these differences are generated by the effect the professional socialization process had in this American sample and not necessarily because of cultural differences.

The question of meaning, with the use of the Osgood semantic differential, is limited to affective meaning and assumes three underlying factors. To answer the third question about underlying dimensions for a general meaning and to further understand the criteria for any differentiation among the six concepts, we used the INDSCAL analysis. In contrast to Osgood's instrument, the INDSCAL does not assume specific underlying dimensions, but rather, sets out to find them.

The findings of the INDSCAL analysis of the underlying dimensions differentiating between the concepts suggests that a cultural perception of the concepts exists. In the American sample, a contrast existed between required activities (function, occupation, and work) and leisure activities (play/leisure); in the Israeli sample, between goal-directed activity (purposeful activity) and free activities (play/leisure, occupation).

Although there is a slight difference in the meaning of these two dimensions, it seems to stem mainly from the cultural and linguistic differences that exist between the two national groups. The INDSCAL analysis appeared to be more sensitive to the cultural semantic differences attributed to the concepts in each language. The sensitivity of the INDSCAL enabled us to identify some cultural and language-bound differences that exist between the two groups, in addition to the differences in affective meaning found with the MANOVA and *t*-test analysis based on Osgood's predetermined factors.

Caution should be exercised in generalizing the findings. The subjects were part of a convenience sample from the New York area only, and thus may not reflect the American occupational therapy population in general. In addition, the student samples were drawn from only one university program in each country. Replication of this study with a representative sample in both countries as well as in other countries, therefore, is recommended. Furthermore, the use of multivariate analyses, which take into account individual differences and aim to determine underlying dimensions of concepts, are recommended. ▲

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