

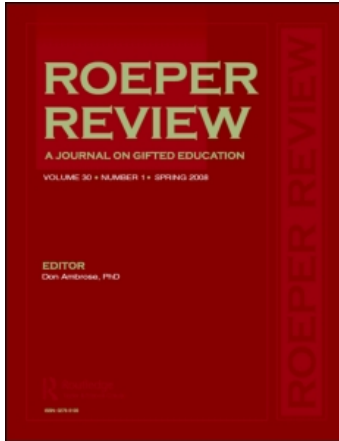
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DIMENSIONS OF THE TEACHER

Exploring Korean and American Teachers' Preferred Emotional Types

Hyeyoung Bang and Diane Montgomery

Understanding the emotional energy of teachers may provide evidence for the nature of the learning environment. Herein, the concept of overexcitabilities (OEs) was used to explore the ways that teachers of general and gifted classes describe their own intensities or emotional preferences. Q methodology was used with 24 teachers from American and Korean classrooms. The Q sort was constructed of 47 statements based on the five areas associated with overexcitabilities. Results indicated a four-factor solution indicating a common emotion of compassion for students and their learning among all teachers. The differences in the factors were interpreted as work-oriented compassion, thoughtful compassion, undemanding compassion, and sensitive compassion. Implications for further research and potential for classroom climate are discussed.

Keywords: Dabrowski, gifted education, gifted educators, overexcitabilities, Q methodology, teachers' emotionality, teachers' emotional types

What does it mean to be an effective educator for gifted students? Throughout the history of gifted education, scholars suggested that the qualifications for gifted educators include specialized skills (Gold, 1965), strong motivation (Barbe & Frierson, 1975), and competencies in skills and knowledge (Seeley, 1979). In addition to these classical characteristics, Montgomery (2004) argued that courage and consciousness are important characteristics for teachers to be able to respond more deeply to gifted students' needs, such as sensitivity, spirituality, intuition, and perfectionism. Courageous teachers work with *heart* when they deal with gifted students (Pirto, 2007). These teachers are more likely to be altruistic and connected to students (Armenta, 1977; Coleman, 1994; Palmer, 1998). They are highly sensitive in their depth of caring, with a sense of compassion, empathy, intuition, and insight that brings emotional and social benefits to students. Highly conscious teachers

have a deep level of awareness of their own reflective teaching performance and the developmental needs of gifted students (Montgomery).

Though literature has emphasized the qualification of gifted teachers, there is little research on how educators perceive their own qualification related to their emotions, intensity, and passions as gifted educators. Many studies have used Dabrowski's (1967) overexcitabilities (OE) to characterize the traits of gifted and talented individuals (Mendaglio & Tillier, 2006; Mika, 2006; Tieso, 2007); therefore, OEs may provide some insights to discover how teachers might describe their intensities and emotional energy. Teacher energy may influence the classroom environment, in turn affecting the performance of students. Further, using an innovative and unique research method, such as Q methodology, will highlight the teachers' subjective experience. Q method allows the use of naturalistic or theoretically based statements sorted by participants to capture their subjectivity (Brown, 1980). In the case of this study, we chose statements that represented OE because of the range and intensity represented by the statements.

Dabrowski (1902–1980) developed the concept of overexcitabilities prior to the development of the theory of

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positive disintegration (TPD; Dabrowski & Piechowski, 1977a). Dabrowski emphasized the importance of crises and disintegration as necessary for psychological growth and the attainment of a personality ideal in his TPD. Likewise, OEs are types of psychic excitability which are described as both driving forces (positive) and nervousness (negative), during the process of systematic reactions to stimuli (Dabrowski, 1967, 1972; Dabrowski & Piechowski, 1977b; Finlay, 2002; Sword, 2002; Tieso, 2007). This range of overreaction seems to be restricted to certain scopes depending on the individual's genetic makeup and environment. OEs are observed easily at a younger age, "whereas OEs are formed into dynamism and higher levels of functions with advanced age" (Dabrowski & Piechowski, 1977b). For individuals who express overexcitabilities, the reactions are above average in terms of intensity, duration, and frequency (Dabrowski & Piechowski, 1977a). This variability in the concept of OE provides the basis for exploring emotionality in teachers. Further, range of expression is available with OE following Dabrowski's suggestion that individuals may produce five forms of psychic OEs: psychomotor, sensual, intellectual, imaginal, and emotional energy (Dabrowski & Piechowski, 1977a).

Individuals with high psychomotor OE show a surplus of energy and psychomotor expression of emotional tension. They may show impulsive actions, a love of movement, rapid speech, high energy to be active, competitiveness, as well as restlessness and nervous habits (Dabrowski & Piechowski, 1977a). A high achiever who does not sleep until finishing an assignment can be categorized in this form. Individuals with high sensual OE seek high sensory and aesthetic pleasure and sensual expression of emotional tension (Dabrowski & Piechowski). They have heightened sensory awareness and appreciation of beauty that forms the intense dislike or love of certain sensory input. A fashion model who likes to be admired and enjoys being the focus of attention can demonstrate this form. Individuals with intellectual OE are manifested in the determination of probing questions, problem solving, learning, and theoretical thinking (Dabrowski & Piechowski). They reveal synthesizing ability, symbolic thinking, and a capacity to search for knowledge as well as the persistence of seeking the truth of personal and social moral values in addition to empathetic concern for others. They are independent thinkers. Individuals with imaginal OE illustrate vivid imagination and spontaneous imagery as an expression of emotional tension. They seem to be creative and talented with verbal expression and inventiveness (Dabrowski & Piechowski). However, they also show a mixing of truth and fantasy, fear of the unknown, and vivid and detailed dreams or nightmares. Poets, movie-makers, storytellers, and writers may show this form. Individuals with emotional OE are manifest intense in experiencing emotional relationships. They present somatic expressions, intensity of feeling, extremes

of emotion, empathy with others, sensitivity in relationships, identification with the feelings of others, and difficulty adjusting to change (Dabrowski & Piechowski; Piechowski, 1991). These OEs are commonly described for many talented and gifted individuals (Dabrowski, 1972). Gifted, talented, and creative individuals seem to be energetic, enthusiastic, and task committed, but they may be emotionally fragile (Silverman, 1994; Tieso, 2007).

The portion of Dabrowski's work that was used in this study with teachers to extend what has been done with gifted students is overexcitabilities (Dabrowski & Piechowski, 1977a). OEs have been used to describe a positive force of psychic energy, particularly for gifted individuals, which can be distinguishable characteristics (Piechowski, 1979, 1986; Piechowski & Colangelo, 1984; Piechowski & Cunningham, 1985). Dabrowski (1972) emphasized emotional factors as having a prevailing role in development. Thus, those five components of overexcitability contain robust emotions, not as unruly subordinates but as the developmental potential of an individual (Dabrowski; Miller & Silverman, 1987; Miller, Silverman, & Falk, 1994; Piechowski, 1979, 1999). He especially emphasized emotional OE as one necessary component to be able to reach the higher levels of development. Emotional intensity is demonstrated by deep concern for others, as well as self-criticism (Dabrowski & Piechowski, 1977a) and other deeply felt emotional responses. Gifted individuals often express great empathy toward others but are critical of themselves, which results in feelings of great responsibility.

There are many studies that measure OE with questionnaires to provide evidence of the presence of particular OEs, especially related to gifted children and adolescents (Ackerman, 1997; Bouchard, 2004; Bouchet & Falk, 2001; Falk, Lind, Miller, Piechowski, & Silverman, 1999; Lysy & Piechowski, 1983; Piechowski & Miller, 1995; Tieso, 2007). Less research focuses on OEs of adults, specifically teachers (Lewis & Kitano, 1992). The overexcitability questionnaires (OEQ and OEQ II; Falk et al.; Lysy & Piechowski; Piechowski & Miller) have been used as a self-report of children's behaviors to identify potentially gifted children (Piechowski & Miller, 1995; Tucker & Hafenstein, 1997), to describe gifted adolescents (Ackerman; Moon, & Montgomery, 2005), to focus on the emotional needs of gifted children (Mendaglio, 2002; Mendaglio & Tillier, 2006; Michelle-Pentelbury, 2002), to demonstrate behavioral similarities between giftedness and ADHD (Crammond, 1995; Hartnett, Nelson, & Rinn, 2004; Mika, 2006), to link any family relationships of descriptors (Tieso), and to describe gifted adults (Lewis & Kitano; Lysy & Piechowski).

Studies have been conducted to identify different profiles of OEs among various groups. Moon and Montgomery (2005) studied gender and overexcitabilities among gifted high-school students in domain-specific schools such as science, art, and foreign high schools in Korea. They found

that students in art high schools scored higher on sensual and imaginal OE; female students in foreign high schools scored high on sensual, imaginal, and emotional OE; and male students scored high on psychomotor and intellectual OE. On the other hand, students in science high schools showed no significant gender difference among OEs. The Korean findings were similar to the American findings that females score higher on emotional and sensual OE, and males score significantly higher on intellectual OE (Moon & Montgomery; Tieso, 2007). Although unanticipated, imaginal OE scores are higher for males than females (Bouchet & Falk, 2001; Moon & Montgomery).

Lysy and Piechowski (1983) found that adult counselor groups had significantly higher OE scores on sensual and imaginal OEs than noncounselors. Studies showed that artists score higher on emotional OE (Piechowski & Cunningham, 1985) and intellectually gifted students score higher on emotional, imaginal, and intellectual OEs (Lysy & Piechowski; Tillier, 2002). Studies with gifted adults found that they perceive their overexcitabilities positively (Lewis & Kitano, 1992). Some studies use OEs to identify gifted students (Ackerman, 1997; Michelle-Pentelbury, 2002; Mika, 2006; Tillier). Yet more empirical data to strengthen the link between Dabrowski's concepts and the life experiences of individuals, especially teachers, may help to enrich gifted education practices.

RESEARCH QUESTIONS

1. What are the ways that teachers of gifted students describe their emotional intensities or emotional types?
2. How do Korean and American teachers distribute among the types?

METHOD

Because the aim of this study was to explore the subjective perspectives of teachers toward their own preferences related to statements of OE, Q methodology (Q) was used as a means of investigation. Q was developed by William Stephenson to measure human subjectivity scientifically (Brown, 1980). Q provides researchers a systematic and quantitative means for examining human subjectivity by using statistical applications of correlation and factor analysis (McKeown & Thomas, 1988). Yet Q is focused on factoring people, not any one specific item on scales within an instrument. The aim is to use individual views, opinions, and perceptions to capture generalizable human subjectivity. In other words, the result would be subjective descriptions of a particular phenomenon, in this case, teacher preferences toward statements of OE. In Q, only a few subjects are required because the subjects genuinely have

“the status of variables rather than of sample elements” (Brown, 1980, pp. 191–192). The P-set, the name given to the group of participants offering their perspective, is recruited on a theoretical basis, which is relevant to the research problem rather than on a random basis (Brown). This study used 24 teachers who work in classrooms with gifted children in Korea and the United States. Some of the U.S. classrooms included only gifted children; however, many of the teachers reported teaching gifted students in general classrooms.

Q method considers validity and reliability differently from traditional factor analytic studies. The validity is considered to be represented by completed sorting procedures from the participants, representing a valid point of view (Brown, 1980). Typically, reliability rests in the stability of the factors, meaning that enough participants sorted in the same way to interpret the factor as a representative view. Further, the use of factor loadings over .40 assures reliable factors (Brown, 1980). Because Q has been used in psychology and education to better understand personality (Denham & Burger, 1991; DiMartino, 1990; Mika, 2006; Westen & Harnden-Fischer, 2001) or teachers' perception (Anderson, 1997; Gipe, Richards, Levitov, & Speaker, 1991; Madoc-Jones & Gajdamaschko, 2005-2006; Moseman, 2003; Nauman, 2004), the method is appropriate for this exploratory study of teacher self-perceived emotional types.

Q Set Development

Q methodology begins with the identification of a concourse or the potential of all possible statements regarding the phenomenon under study. This study used the five forms of overexcitabilities because they seem to be appropriate descriptors, which represent a range of potential ways for teachers to describe their preferences, particularly in teaching. The concourse represents the population of views or opinions and was sampled to yield the best descriptors manageable for the participants in the sorting procedure. Many studies used the *Overexcitability Questionnaires* (OEQ and OEQ II) to measure overexcitabilities (Falk et al., 1999; Lysy & Piechowski, 1983; Piechowski & Miller, 1995). However, the 47 Q statements (Q sample) used for sorting purposes in this study were adapted to represent a teacher opinion, an extension from Strickland's (2007) *Overexcitability Self-Evaluation*. Strickland's *OE Self-Evaluation* was originally designed as a classroom activity for pull-out gifted middle-school students as a means to understand personal traits thought to assist in reaching self-actualization. The items on Strickland's *OE Self-Evaluation* were used as a foundation for the concourse development for this Q study because of the range of potential intensity within each of the five OEs. The basic idea for each statement was retained with adaptations made for the statement to be relevant to the teachers who sorted them. Additional statements were necessary to complement

the concourse based on relevant literature and the teaching and research experiences of the researchers. The final Q sample consisted of 47 statements representing the five components of OEs: 9 psychomotor, 9 sensual, 10 intellectual, 9 imaginal, and 10 emotional OE.

P-set (Participants)

Upon Institutional Review Board approval, 24 teachers who were known to the researchers from Korea and the United States were invited to participate in the study. We believed that teachers may report their experiences in the classroom differently based on their country of origin. Furthermore, in Q method researchers make attempts to find representation of potential variety in perspective (Brown, 1980). Ten elementary-school teachers, specifically one school nurse, one special education teacher, and eight homeroom teachers, ranging in age from 21 to 50 years, were from Busan, South Korea. Eight American middle-school teachers, of which one was African American and seven were Caucasian, ranging in age from 31 to 50 years, were from Tulsa, Oklahoma. Additionally, six American and international graduate students who were teachers and enrolled in a doctoral course on emotion and cognition ranging in age from 21 to 60 years participated in the study. Of the total participants, 20 were female and 4 were male. Participants represented the teaching areas of elementary education, accounting education, gifted education, special education, health education, and subject areas of science, mathematics, physical education, language arts, and Spanish.

Although there was only one full-time gifted educator, all teachers reported having taught or were currently teaching gifted students either in gifted pull-out programs or in general classes. The term *gifted educator* commonly describes teachers who have only gifted children in their classes. In Korea, gifted children are placed in general classrooms and in Oklahoma, gifted children are with teachers of the gifted and teachers of general classrooms. Our sample includes these teachers who regularly educate gifted students.

Procedure

Data collection included the distribution of a set of the 47 Q statements on cards, the demographic survey with a response sheet for recording the sort on the back side, and the form board delineating the forced distribution for sorting the statements. The distribution for sorting is shown in Table 1, along with the array positions and statistical values for the statements.

The participants were given the sorting procedure first, which started by reading the 47 statements and placing them into three general piles of *most like me*, neutral, and *most unlike me*. A common script was followed to sort the statements along the 11-point forced distribution continuum

TABLE 1
Sorting Pattern and Analysis Value

Number of statements in column	2	3	4	5	6	7	6	5	4	3	2
Array position (statistical value)	-5	-4	-3	-2	-1	0	1	2	3	4	5
Sorting placement	1	2	3	4	5	6	7	8	9	10	11

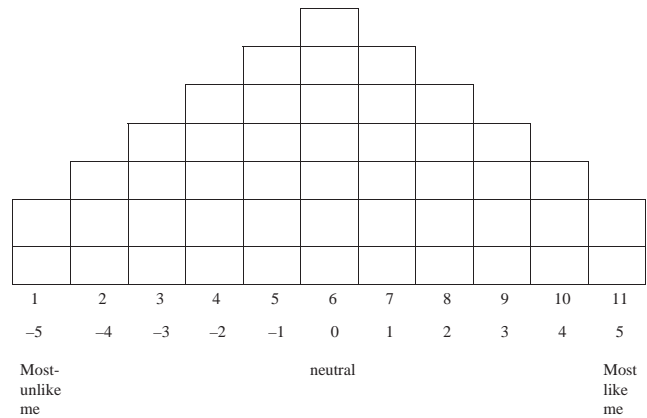


FIGURE 1 Q-sort: form board.

represented in Figure 1 with a range of *most unlike me* to *most like me*. The extreme descriptors including 1, 2, 10, and 11 in the sorting placement are considered to have greater importance to the sorter and are placed first on the continuum. The statements in these positions in the results, then, are most important for interpretation of each type. Thus, participants were asked to provide their rationale for sorting extreme descriptors. In addition, participants were asked to respond to a demographic survey regarding descriptors of gender, age, ethnicity and grade, subjects, school, position, and class they teach. Open-ended questions regarding the teacher's feelings about teaching were included. All documents were translated and reverse-translated by two native Korean speakers to assure validity for the Korean teachers.

Data Analysis

Data were analyzed by using PQ Method 2.11 (Schmolck, 2002). Each Q sort was correlated to all other sorts. Centroid factor analysis was used to obtain an initial estimate of potential factors. Factors were then rotated by hand, using researcher judgment for the solution that would capture the most distinct viewpoints, with stable, reliable factors. Factors 2 and 4 were rotated by 3 degrees to reduce confounded sorts or those sorts that reached significance on more than one factor. Significant factor loadings were determined to be .40 or above. A four-factor solution was retained, which

TABLE 2
Factor Matrix Showing Defining Sorts

Sort	Factor loading				G	Age range	N & E	CTL	YT
	1	2	3	4					
1	0.7215*	0.1664	0.2136	-0.1827	F	31-40	K	Elem	10
2	0.4412*	0.1489	0.1867	0.0043	F	51-60	AFA	Middle	26
3	0.5565*	0.2509	0.3339	0.1673	F	31-40	WA	Middle	2
4	0.6581*	0.3180	-0.0290	-0.0945	F	31-40	WA	Middle	10
5	0.7290*	-0.2483	-0.0158	-0.0212	M	51-60	WA	College	27
6	-0.2614	0.5340*	0.3718	0.0870	F	41-50	K	Elem	22
7	0.2784	0.6465*	0.0097	-0.0859	F	41-50	K	Elem	19
8	0.0942	0.5418*	0.2526	-0.3923	M	41-50	K	Elem	28
9	0.0973	0.6807*	0.1460	0.3688	F	21-30	NA	College	2
10	0.2756	0.5020*	-0.2128	-0.0332	F	31-40	AS	College	8
11	-0.0122	0.7567*	-0.1144	0.3697	F	51-60	WA	M/Gftd	17
12	0.1892	0.6730*	-0.0510	0.0415	F	31-40	K	Middle	8
13	0.1015	-0.1134	0.7716*	0.1259	F	41-50	K	College	26
14	0.3678	-0.2635	0.6541*	0.1259	F	21-30	K	E/SpE	3
15	0.1724	-0.1605	0.5484*	0.1248	F	21-30	K	E/SpE	11
16	0.0518	0.3735	0.6113*	-0.1371	F	41-50	K	Elem	20
17	0.3697	0.2150	0.5716*	-0.1690	F	21-30	K	Elem	3
18	-0.1525	0.0393	0.6277*	0.0241	F	31-40	K	Elem	15
19	0.3385	0.0032	0.4377*	0.3326	F	31-40	WA	Elem	10
20	-0.0628	0.1667	0.2226	0.7559*	F	31-40	WA	Middle	5
21	0.3296	0.0028	-0.3102	0.6281*	M	31-40	WA	M/SpE	9
22	0.3045	0.2585	0.3084	0.4201*	F	41-50	WA	Middle	11
23	0.3341	0.1047	-0.0075	0.5901*	M	31-40	WA	Elem	1
24	0.1035	0.2083	0.3799	0.4308*	F	41-50	AFA	Mid/Co	8

Note. *Denotes a loading as significant at .40. G = Gender, N & E = Nationality and Ethnicity. WA = White American, AFA = African American, NA = Native American, K = Korean. CTL = Current Teaching Level, Elem = Elementary School, Middle = Middle School, M/SpE = Middle-School Special Education, E/SpE = Elementary-School Special Education, M/Gftd = Middle-School Gifted Class, Mid/Co = Middle-School and College-Course Teaching.

was followed by the calculation of a z-score for each statement from the defining sorts for each factor. Calculated z-score, factor arrays and ranks for statements on each factor, distinguishing and consensus items, demographic information, and comments from the open-ended questions were used to analyze and interpret the factors.

RESULTS

The factors were interpreted to represent four distinct types of emotional responses from teachers and were named Type 1: work-oriented compassion (5 sorts), Type 2: thoughtful compassion (7 sorts), Type 3: undemanding compassion (7 sorts), and Type 4: sensitive compassion (5 sorts). Table 2 demonstrates the factor solution and the descriptions of the participants whose sorts defined each of the factors. The common noun in each factor name is compassion, representing the similarity of the sorting results among the four types. The teachers all sorted a priority for compassionate and caring responses to their teaching work and the people in their work. What is interesting here is to note the differences for the meaning of compassion and caring between

and among the factors or what we have called *emotional types*. The descriptions of types demonstrate the subtle variations in the compassionate views of participants.

Type 1: Work-Oriented Compassion (5 Sorts)

The sorts of five teachers defined the type called work-oriented compassion. Three American middle-school teachers (all females aged 31-60; an African American and two Caucasian), a male college professor (51-60), and a female Korean elementary teacher (31-40) sorted similarly to define this type. This type of emotional response to teaching appears to be directed to the goals needed for the work in the classroom. The highest positive and negative value z-scores for statements for this type were ordered according to Table 3, the theoretical sorting distribution representing the strongest opinions of this type. From this arrangement, we see that the work-oriented type has a collection of statements that relate to the ways that they view teaching as work. They try to find many options for their work (statement number 25; array position of +5; z-score of 1.86), have a strong driving force to finish work (1: +4; 1.76, 5: +4; 1.68), and being the best is the clear and ultimate goal for

TABLE 3
Work-Oriented Compassion Theoretical Sort

(OEs)	Type 1 statements	Rank	z-score
Work-oriented Psychomotor and Intelligent OEs			
InOE most like me item	25. I think about the many possible consequences of certain events or actions.	+5	1.86*
POE more like me items	1. I often feel pressured to finish as soon as possible so that I can do the next task.	+4	1.76
InOE more like me items	5. When I have something to do, I can't sleep until I finish it.	+4	1.68**
POE less like	9. I should be the best.	+4	1.70*
	21. I explore a wide variety of theories and ideas and adapt into my lessons and teaching strategies.	+3	1.15*
	22. I am able to examine ideas outside of the framework of my own opinion.	+3	1.14
	7. I normally procrastinate when things overwhelm me.	-2	-0.75
Compassion			
EOE	40. I am highly compassionate and caring.	+3	1.23
SOE most like me item	10. I often become totally captivated or immersed in music or the visual arts.	+5	1.88*
Contraemotional, imaginational OEs			
EOE more like	39. I am steady; I don't easily get hurt.	+2	0.98*
EOE most unlike me item	38. I am excruciatingly sensitive; I experience intense emotions.	-5	-1.52**
ImOE most unlike me item	29. I write, speak, dream or think in vivid imagery and sometimes I mix truth and fantasy in my thought.	-5	-1.63
ImOE less like me items	18. I love when my students tell me I am fashionable; I could burst.	-4	-1.38*
POE less like me	30. I embellish the plain truth in ways that make my end of the conversation more impactful or amusing.	-4	-1.20
EOE less like me	32. I entertain myself endlessly with private jokes and wacky visual, auditory, or associational images.	-3	-0.89*
	4. If an activity is physically exhausting I find it satisfying.	-3	1.03**
	43. I often spend time thinking about feelings and/or emotions.	-2	-0.84**

Note. POE = Psychomotor OE, SOE = Sensual OE, InOE = Intellectual OE, ImOE = Imaginational OE, EOE = Emotional OE.
* $p < .05$, ** $p < .01$ denote distinguishing statements for this type.

them (9: +4; 1.70). They do not postpone things even if things overwhelm them (7: -2; -0.75). Accomplishing the necessary work is a priority.

Teachers of this type describe themselves as calm and steady (39: +2; 0.98). One of the participants answered the open-ended question by describing herself as logical, systematic, and doing her best to get her job done. They do not consider themselves particularly emotional (38: -5; -1.52) because they see themselves as more realistic and rational (29: -5; -1.63). This objective view for the teachers of this type is supported by their hesitation to prioritize entertainment or unrealistic imagery amusement in their lives (32: -3; -0.89).

Work-oriented compassionate teachers revealed strong psychomotor and intellectual OEs, although this preference appears to be more goal-oriented, with surplus energy invested in competitiveness rather than the energy literally expended in physical exercise. Likewise, their intellectual OE illustrates their search for strategies and solutions seeking ways to make their teaching better. On the other hand, statements that reveal intense imaginational, sensual, or emotional OEs were not sorted as a priority. However, the statement showing a love for music or the visual arts (10: +5; 1.88) demonstrates an appeal to the arts that might be

sensual, again with a framework of the intellectual rather than any unrealistic, overexaggerated, or sensational aspects of OEs.

Type 2: Thoughtful Compassion (7 Sorts)

The sorts of seven teachers defined the thoughtful compassion type (see Table 4). Three Korean elementary-school teachers (a male and two females; aged 41-50) and three doctoral students and their professor (four females; a Korean, a Chinese and two Americans; aged 21-60) comprise this type of teacher. They are analytical, critical, and investigative as represented by the data in Table 4 (statements for the highest rankings, both positive and negative, of the z-scores calculated for the theoretical array of this type). They describe themselves as creative, caring teachers who place a high value on the arts. It is interesting to observe that most of the graduate students (four out of six) and the instructor of a doctoral seminar on the relationship of emotion and cognition define this type. We see from Table 2 that none of the American middle-school teachers defined this type, but three Korean teachers were associated with this type. Most of the participants whose sorts defined this factor were experienced teachers.

TABLE 4
Thoughtful Compassion Theoretical Sort

(OEs)	Type 2 statements	Rank	z-score
Intense/revolutionary intellectual OE: Creative, critical thinker, justice and truth seeker			
InOE more like me items	21. I explore a wide variety of theories and ideas and adapt into my lessons and teaching strategies.	+4	1.75*
InOE less like me items	25. I think about the many possible consequences of certain events or actions.	+3	1.18
	22. I am able to examine ideas outside of the framework of my own opinion.	+2	1.06
	26. People often accuse me of overintellectualizing or overanalyzing things or people.	+2	0.77**
	28. When a problem occurs in the faculty, I dig beneath the surface and initiate the problem solving.	+2	0.62**
	27. My colleagues tell me I am high-strung about injustice.	+2	0.60**
	23. Analyzing and synthesizing is not my business. I just do what I am told to do.	-4	-1.70**
	20. I like words such as <i>rational</i> , <i>submissive</i> , and <i>moderate</i> rather than <i>progressive</i> , <i>assertive</i> , and <i>self-confident</i> .	-4	-1.65**
	19. I think someone who is always questioning about everything lives a restless and tiresome life.	-3	-1.13
Compassion: Warm-hearted, thoughtful, caring			
EOE most like me items	40. I am highly compassionate and caring.	+5	2.07
EOE less like me items	43. I often spend time thinking about feelings and/or emotions.	+5	1.82**
	41. I hardly become emotional even when I watch emotional movies, dramas, or documentaries.	-4	1.33
	44. I like giving instruction but I am disinterested in my students' personal problems.	-3	-0.98
Adventurous: Enjoy sensual and imaginative world			
SOE	11. A beautiful sunset mesmerizes me.	+4	1.54
POE	6. I use a lot of physical activities, games, or sports during the class.	+4	1.33**
SOE	13. I am adventurous where new sensory experiences are concerned (food, music, environmental, etc.).	+3	1.23
ImOE	35. I think of or treat animals or objects as if they are people.	+2	0.51
ImOE less like me	36. I have little talent for creating stories even if I love to.	-5	1.72
SOE less like me	34. I am a realistic person; I don't dream and I don't like exaggeration.	-2	-0.63**
	14. I have little sense to realize different looks of my students.	-3	-1.21

Note. POE = Psychomotor OE, SOE = Sensual OE, InOE = Intellectual OE, ImOE = Imaginational OE, EOE = Emotional OE.
* $p < .05$, ** $p < .01$ denote distinguishing statements for this type.

The thoughtful compassion type seems to have the ability to search and synthesize theories and ideas and come up with a variety of strategies and solutions (21: +4; 1.75). They are likewise critical thinkers; they have the capability to examine ideas outside of the traditional framework (22: +2; 1.06). This type often may be condemned as too analytical and intellectual by others (26: +2; 0.77). They persistently find solutions and solve problems (25: +3; 1.18). Concerned with seeking justice and truth, they do not overlook injustice because they are concerned with personal and social moral values (28: +2; 0.62, 27: +2; 0.60). They make decisions on their own and prefer not to be given directives on what to do (23: -4; -1.70). They consider themselves more progressive, assertive, and self-confident than submissive or moderate (20: -4; -1.65). They like questioning and finding solutions (19: -3; -1.13).

Thoughtful compassionate teachers appeared to be more deeply compassionate than the other types. According to the *most like me* items, they spend time thinking about emotions and feeling (43: +5; 1.82) and consider themselves highly compassionate and caring (40: +5; 2.07). It appears that they care deeply about social justice, which may cause intense feelings and emotions. They are interested in the

students' personal problems (44: -3; -0.98) and often feel empathy toward the situations portrayed in movies, drama, and documentaries (41: -5; 1.72). Apparently, taken together, these statements in comparison with the other types show that they are warm-hearted, thoughtful, caring, and sensitive.

Thoughtful compassionate teachers showed many of the overexcitabilities. Intellectual OE is represented by critical, analytical, synthesizing, and problem-solving abilities. Yet, this type can be interpreted as strongly caring about moral values such as injustice, with caring, empathic, and warm-hearted characteristics (emotional OE). They have imaginational and sensual OEs, which may influence their creativity in teaching. Expressed adventurousness, curiosity, and capacity for problem solving may enhance their ability to be creative.

Type 3: Undemanding Compassion (7 Sorts)

The sorts of seven teachers were the undemanding compassion type. Six Korean elementary-school teachers (all females, aged from 21 to 50), and a female American middle-school teacher who was in the 31-40 age range defined this

type. Because most teachers are Korean, except for one American teacher, this type may reveal some sociocultural characteristics.

The Korean teachers who are undemanding compassionate described themselves in detail by answering the open-ended questions unlike any teachers of other types. They reported being more submissive (sorters 13 and 14; see Table 2), positive in outlook (sorters 13 and 16), and tranquil in attitude (sorters 15, 16, and 10) than others. Some of them reported to have a near social phobia and emotional stress from interpersonal relationships (sorter 13 and 14). In response to the open-ended questions, they described that they “do not want to be disturbed” or prefer to “avoid getting attention” (sorters 14 and 18). They seem to live an untroubled peaceful life, preferring to stay unnoticed by authority.

Interpretation of the statements as arranged by extreme z-scores in Table 5 for undemanding compassionate teachers shows a sense of keeping peace and seeking peace. They are

easygoing and want to be free from trouble, stress, intense emotion, or worry. They enjoy a more peaceful life than sensational life (15: +5; 1.91). They do not want to feel pressure about the work they face, so they want to get rid of various tasks by finishing them as soon as possible (1: +5; 2.17). They may postpone things when overwhelmed (7: +4; 1.50) and avoid attention (12: +4; 1.63).

Teachers of this type are not as quick to choose responses in the intellectual domain; rather, they are acquiescent, more submissive, compliant but diligent. They prefer living an untroubled life rather than a restless and tiresome life resulting from relentless questioning (19: +3; 1.12). They do not want to analyze or criticize (23: +2; 0.50); instead, they prefer to work within defined parameters (23: +2; 0.50). Notice in the most extreme statements that they prefer words such as rational, submissive, and moderate rather than progressive, assertive, or self-confident (20: +2; 0.50). The undemanding compassionate would oppose digging beneath the surface of problems as

TABLE 5
Undemanding Compassion Theoretical Sort

(OEs)	Type 3 statements	Rank	z-score
Undemanding: Easy-going, free from trouble, stress, intense emotion, worry, and attention			
POE most like me items	1. I often feel pressured to finish as soon as possible so that I can do the next task.	+5	2.17
SOE most like me items	7. I normally procrastinate when things overwhelm me.	+4	1.50
	15. I am happy with a feeling of being untroubled rather than a feeling of being zestful or sensational.	+5	1.91
	12. I do not like the attention. I want to be a quite person.	+4	1.63**
Contra-intellectual OE: Acquiescent, submissive, compliant but diligent			
InOE more like me items	19. I think someone who is always questioning about everything lives a restless and tiresome life.	+3	1.12**
InOE	23. Analyzing and synthesizing is not my business. I just do what I am told to do.	+2	0.65**
InOE most unlike me items	20. I like words such as <i>rational</i> , <i>submissive</i> , and <i>moderate</i> rather than <i>progressive</i> , <i>assertive</i> , and <i>self-confident</i> .	+2	0.50
	28. When a problem occurs in the faculty, I dig beneath the surface and initiate the problem solving.	-5	-2.01**
	27. My colleagues tell me I am high-strung person about injustice.	-5	-2.06*
Compassion			
EOE more like me items	40. I am highly compassionate and caring.	+4	1.84
	47. When I know that I hurt my students, I feel strong guilt. I often have nightmares about what I have done.	+2	0.40
Suppressed-imaginational OE: Realistic and do not like sensational or imaginational entertainment			
ImOE more like me	34. I am a realistic person; I don't dream and I don't like exaggeration.	+3	1.28**
ImOE less like me items	36. I have little talent for creating stories even if I wanted to.	+2	0.59**
	32. I entertain myself endlessly with private jokes and wacky visual, auditory, or associational images.	-4	-1.57*
	29. I write, speak, dream or think in vivid imagery and sometimes I mix truth and fantasy in my thought.	-4	-1.29
	30. I embellish the plain truth in ways that make my end of the conversation more impactful or amusing.	-3	1.00
	37. I like acting and storytelling activities because I enjoy exaggerating reality.	-3	-0.87

Note. POE = Psychomotor OE, SOE = Sensual OE, InOE = Intellectual OE, ImOE = Imaginational OE, EOE = Emotional OE.

* $p < .05$, ** $p < .01$ denote distinguishing statements for this type.

well as initiating the problem-solving process (28: -5; -2.01). They do not consider themselves to be particularly high-strung about injustice. It may be that they are supportive of social justice issues; however, this type would not appear to place high demands on themselves toward advocacy actions to alleviate injustice (27: -5; -2.06). Some answers in the open-ended question were, "I hate initiating actions in front of people" (sorter 14, see Table 2), "I want to do something I like without getting people's attention" (sorter 18, see Table 2) or "I'm not disturbed by others or environment, I am not critical and analytical" (sorter 15, see Table 2). These responses provide supporting evidence of the quiet emotional type of undemanding compassionate teachers.

Undemanding compassionate teachers appear to feel guilt when they realize that they hurt their students. This type shows the characteristics for not wanting to have stress by hurting or harming others. In the open-ended question, they reported that they "treat others with positive manner" (sorters 13 and 16; see Table 2), "do not like confronting others" (sorters 13, 14 and 18, see Table 2), and "try not to disturb or overreact to others (sorters 13 and 15, see Table 2). They seem to build up positive interpersonal relationships by being positive, not making trouble or displaying immature emotions. One of the Korean teachers reported that she often feels emotional stress because she tries not to overreact or negatively respond to others (sorter 13; see Table 2).

Undemanding compassionate teachers appear more realistic, without much exaggeration (34: +3; 1.28). They do not enjoy sensational or imaginal entertainment such as jokes, wacky images, or dreams (32: -4; -1.57). Fantasy, dreaming, and deep thinking would not be good descriptors of this type (29: -4; -1.29). They value being straightforward with the plain truth (30: -3; 1.00) and would not add humor or exaggeration of reality (37: -3; -0.87).

Undemanding compassionate teachers demonstrate characteristics that are less intense as intellectual, imaginal, and sensual OEs. Unlike other types of teachers, undemanding compassionate teachers try to avoid intense overexcitabilities deliberately. They seem to have certain emotional intensity, which showed in their sorts (47: +2; 0.40, 46: +2; 0.78), and their open-ended question (sorters 13 and 14). They seem to have other-centered emotion. They get hurt when they know they hurt others and when their interpersonal relationship suffers. That is why they may choose to remain quiet. One of the teachers seemed to think that maturity comes from calmness and a positive manner toward others as expressed in her open-ended question (sorter 16, see Table 2).

Type 4: Sensitive Compassion (5 Sorts)

The sorts of five teachers defined the sensitive compassion type (four American middle-school teachers, two males both age 31-40 and two females age 31-50 and one female

African American college instructor, age 41-50). In the open-ended questions, two female teachers from the United States reported that they are extraordinarily active. We might note that two out of four male participants represented in the study fit this type.

The statements with high *z*-scores (positive and negative) that assist in interpreting this type are shown in Table 6. Sensitive compassionate teachers reported that they are very emotional, easily hurt, not emotionally steady, and somewhat unrealistic. They put off things when overwhelmed. They can feel a mixture of different emotions all at once. They sometimes overreact out of frustration toward their students (3: +3; 1.10). They seem to be emotionally sensitive and less concerned about intellectual matters. Less priority on intellectual matters might be the reason that the statement about injustice was ranked as unlike them (27: -4; -1.37 taken with item 26: -4; -1.47). The priority descriptors for this type are related to an intense emotional attachment to others as well as being highly compassionate and caring (40: +4; 1.77).

Sensitive compassionate teachers seem to be sensation seekers. Responses to the open-ended question support this characteristic. They reported that they love physical exercise, even highly demanding "sports such as motorcycling, hiking, and running" (sorters 20 and 22, see Table 2) and "love to try new things" (sorters 20 and 22). They considered being physically exhausted satisfying (4: +4; 1.24). They are adventurous and seek new sensory experiences such as food, music, and environments (13: +4; 1.56). They also experienced intense and vivid dreams (33: +3; 1.24) and are fascinated by music or visual arts (10: +3; 1.00), which show their artistic potential.

Sensitive compassionate teachers expressed characteristics associated with emotional OE. They overreact toward students out of frustration, whereas teachers in other types sorted the same relevant statement as less like me. They showed high psychomotor, imaginal, and sensual OEs. They seem to be adventurous, active, and imaginative. They seem to be captivated by entertaining themselves with jokes and visual or auditory imagination. These characteristics are similar to the thoughtful compassionate teachers. On the other hand, whereas thoughtful compassionate teachers are intellectually sensitive, the sensitive compassionate teachers seem to describe characteristics associated with physical and sensual OE.

Interesting statements that were sorted by sensitive compassionate teachers are Q statements 2 and 6. They sorted these two seemingly contradicting statements "I hate physical activities" (-5; -2.12) and "I use a lot of physical activities, games or sports during class" (-5; -1.53) as least descriptive of their types. Perhaps we see that the teachers like exercise for themselves but they do not use physical activities as part of classroom instruction. The roles of these teachers as working with older students might help us understand this sorting pattern (teachers of science, special education, health, and college).

TABLE 6
Sensitive Compassion Theoretical Sort

Characteristics (OEs)	Type 4 statements	Rank	z-score
Sensitive: Intense emotional OE, emotional psychomotor and imaginational OEs and less intellectual sensitiveness			
POE most like	7. I normally procrastinate when things overwhelm me.	+5	2.01
EOE most like	46. I can feel a mixture of different emotions all at once.	+5	1.84**
POE more like me	3. I sometimes overreact out of frustration toward my students.	+3	1.10**
ImOE less like	34. I am a realistic person; I don't dream and I don't like exaggeration.	-4	-1.42**
InOE less like me items	27. My colleagues tell me I am high-strung person about injustice.	-4	-1.37*
EOE less like	26. People often accuse me of overintellectualizing or overanalyzing things or people.	-4	-1.47**
	39. I am steady; I don't easily get hurt.	-3	-0.83**
Compassion			
EOE more like me items	40. I am highly compassionate and caring.	+4	1.77
	42. I have intense emotional attachments to others.	+2	0.81
High psychomotor, Imaginational, and sensual OE: Adventurous, active, imagination and sensation seeking			
POE	4. If an activity is physically exhausting I find it satisfying.	+4	1.24**
SOE	13. I am adventurous where new sensory experiences are concerned (food, music, environmental, etc.).	+4	1.56
ImOE	33. I often have intense and vivid dreams or nightmares and I can clearly remember them.	+3	1.24**
SOE	10. I often become totally captivated or immersed in music or the visual arts.	+3	1.00
POE more like me items	9. I should be the best.	+2	0.95*
ImOE	8. I use my whole body to communicate.	+2	0.74
POE most unlike me items	32. I entertain myself endlessly with private jokes and wacky visual, auditory, or associational images.	+1	0.62**
	2. I hate physical activities.	-5	-2.12
	6. I use a lot of physical activities, games, or sports during the class.	-5	-1.53**

Note. POE = Psychomotor OE, SOE = Sensual OE, InOE = Intellectual OE, ImOE = Imaginational OE, EOE = Emotional OE.
* $p < .05$, ** $p < .01$ denote distinguishing statements for this type.

DISCUSSION

With the use of a unique research methodology, we found four types of teachers based on the ways that the participants prioritized statements related to the five overexcitabilities as described by Dabrowski (Dabrowski & Piechowski, 1977a). The four types—work-oriented, thoughtful, undemanding, and sensitive—did not seem to be related to age or area of teaching but have similarities according to the teacher's culture or personal interests. Although it would not be appropriate to generalize the typology to a population of teachers (because sampling in Q method is a representation of the ideas from the concourse of possible opinions), the characteristics of teachers who defined each type may lead to some initial understanding of teacher subjective descriptions of emotional responses or expression. Moreover, although there was no apparent connection between the area of teaching and the teachers' emotional types in this small sample study, we assume that replicating the same study with teachers of the gifted may produce a factor structure with similar interpretations. It seems important that a study of teachers' emotional typology be conducted with teachers who have been prepared to meet all of the national

standards for teaching students who are gifted (Council for Exceptional Children—The Association for the Gifted and National Association for Gifted Children, 2006).

It is important to note that teachers with all four types of emotional responses are deeply compassionate about students. This means that all teachers who participated in the study in both countries demonstrate with consistency compassion and caring. However, based on the resulting types, they show differences toward their students, work, academic standing, or colleagues, depending on priorities. We infer from interpreting the result that compassion as it is understood from the theoretical types is beneficial to teaching, developing relationships with students, and working with colleagues.

Work-oriented and undemanding appear less expressive emotionally; whereas, thoughtful and sensitive are expressive with greater intensity in emotion. Though work-oriented and undemanding teachers do not enjoy unrealistic imagination or sensation, the difference between these two is that the work-oriented teacher demonstrates goal achievement as a driving force, whereas the undemanding teacher believes in avoiding conflict and being diligent and industrious. They feel a sense of

duty to follow directions and meet the requirements set before them as teachers.

Some areas of future research interest relate to the undemanding compassion type that was defined by several Korean and all female teachers. We struggled to find a name for this type and discussed the potential cultural expectations for teachers in both countries to realize the easy-going nature of this diligent teacher, especially in light of the thoughtful type of teacher who showed strong interest in justice and seemed to be more idealistic. It is interesting to note that the college instructors who participated in the study fit in this type.

The sociocultural context may influence teachers' emotion types and their potential action choices. Stereotypical individualism affects American teachers' emotions, cognitions, and behaviors, whereas collective consciousness and social norms appear to have a role with Korean teachers' perception. This is why Koreans place value on *woori* (we, us), which is collective consciousness between social members (Jeong, 2005). The emotional needs of teachers arise as an issue because emotional stress and anxiety, resulting from an interpersonal relationship was observed in their work environment. Thus, even though work-oriented and undemanding teachers share similar qualities, they are distinct by the cultural aspect.

Because these types of teachers share similar OE profiles with gifted students, we believe that understanding one's own type might be beneficial to gifted education. Sternberg (1997) concluded that students who are instructed and evaluated in a way that matches their profile of abilities perform better. Furthermore, teachers tend to evaluate positively and overestimate students who match their own profile and style of thinking (Sternberg; Sternberg & Lubart, 1991). This evidence shows that teachers' perceptions and attitudes are highly influential in students' performances. Teachers' perceptions and attitudes help to recognize as well as facilitate the potential for gifted behavior.

The results of this study demonstrate the usefulness of Dabrowski's overexcitabilities in describing teachers' perception of their emotions. One or more of Dabrowski's overexcitabilities were clearly observed among three of the four types. It seems that emotional responses generally were inclusive of descriptors of sensual, imaginal, and emotional overexcitabilities. The study results may bring up some initial sociocultural differences between Korean elementary-school teachers and American middle-school teachers. Overall, stereotypical individualistic American characteristics affect teachers' emotions, and likewise the collective Korean society influences Korean teachers' emotion types in this sample.

Though three types (work-oriented, thoughtful, and sensitive) relate to one or more of five forms of Dabrowski's overexcitabilities, the undemanding type shows less intensity or extreme emotional responses. Although they do not consider themselves activists for social justice, they show guilt over wrong-doing toward their students and are emotionally vulnerable, sharing a similar emotional vulnerability with gifted students. Undemanding teachers are responsible because

they care. This type of teacher would work not to harm students but to benefit students with care and responsibility.

Work-oriented compassionate teachers may encourage gifted students by developing and applying interesting and meaningful curricula to meet students' academic needs according to their OE profiles. Teachers of this type are creative problem solvers, devoted to work and teaching that could facilitate the needs of gifted students.

Thoughtful compassionate teachers show intellectual OE, as well as creative components of imaginal and sensual OEs. This type of teacher shares OE profiles with intellectually gifted students (Lysy & Piechowski, 1983; Tillier, 2002). They are creative problem seekers, and solution finders. They show not only an interest in academia but are also empathically involved in students' personal problems. They seek justice and resist immorality and are sensitive and adventurous.

Sensitive compassionate teachers place a high value on intense emotional, psychomotor, imaginal, and sensual OEs, even though the type shows less intense intellectual OE. This type shares similar OE profiles with female gifted and artistic adolescents and artists (Lysy & Piechowski, 1983; Moon & Montgomery, 2005; Piechowski & Cunningham, 1985). Sensitive teachers explicitly show their frustration toward students. Nonetheless, their artistic, adventurous, imaginative, and active passion may benefit gifted students with creativity.

This study was exploratory in that it witnessed how the four emotion types of teachers may potentially affect a learning environment or benefit gifted education. For future research, it will be interesting to discover how other cultures impact gifted people's emotions using the overexcitabilities. Q method could provide possible avenues, particularly to teachers. It was also reported that some developmental aspects of teachers' emotional stress experienced are due to intense or unexpressed emotions. A further study for a close look at the teachers' developmental issue in terms of the TPD perspectives or Jungian perspectives of personality types related to their stress and coping may be intriguing. Researchers might take a look at how teachers' emotion types impact their teaching and the students' learning and how teachers' emotion types impact their subjective emotional well-being. It is also necessary to study more about the influence of the teachers' emotion types on various kinds of gifted students and their learning before applying directly to a classroom context. As we recognize that gifted students differ, so too do their teachers. Our job as researchers is to get the information to maximize the matches.

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