

observation that the presence of a price seems to move the consumer to purchase a profile without discount, despite the fact that final prices were the same in all the designs.

It also seems to be influenced by the subjective evaluation of the brand: not only are famous brands given more consideration than unknown ones, but the presence or absence of brand indication has a strong influence on the global judgment.

“Conjoint analysis and Functional measurement appear to be largely complementary, not competitive” (Luce, 1977); the former is capable of providing the relative importance of the factors, especially for principal effects; the latter, instead, works particularly in the presence of interaction effects trying to describe the integration process that underlies them.

They both prove useful for globally analyzing the trend of the phenomenon, however, in Conjoint analysis, if a non additive integration rule is required, “part-worth utilities are estimated only as a vehicle for estimating the overall evaluation of each option” (Lynch, 1985) thus losing the psychological information that instead is typical of the information integration paradigm.

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COMPARISON BETWEEN TEACHER'S LIFE EVENTS RATING SCALE (TLERS)

Natália P. Pimentel, Flávia C. S. Laroca, Sabrina M. Pereira and Ricardo Kamizaki
Human Sciences Institute - Psychology Department – UFJF – Juiz de Fora-MG – Brazil

Abstract

The main purpose of the present study was to compare ratings of teachers' life events (TLERS) in high school and elementary school teachers. 138 teachers from several elementary and high schools from São Paulo State and 20 teachers from Elementary and High School Fernando Lobo, Juiz de Fora – Minas Gerais State- Brazil answered these questionnaires. Pearson's correlation was 0.26, indicating that, probably, cultural and social factors can influence teachers' social representations. The Beck Inventories BDI and BAI in Juiz de Fora's teachers indicated low anxiety and no traces of depression.

Kamizaki & Faleiros Sousa (2001) proposed the Teacher's Life Events Rating Scale questionnaire (TLERS) to determine the events in a teacher's life that can affect and activate social readjustment-- the intensity and length of time necessary to accommodate to a life event regardless of its desirability (Holmes & Rahe, 1967), whether it produces stress or not. This scale was administered to 138 teachers from São Paulo State - Brazil. Relationships with students such as *facing disrespectful students* and *discipline problems* were considered to require the greatest degree of social readjustment.

Goal

The main objective of the study was, using the psychophysical method proposed by Stevens (1975), to determine the differences between teachers from Juiz de Fora, Minas Gerais State and teachers from several cities of São Paulo State, Brazil.

Method

Subjects: The subjects were 19 teachers: 4 men and 15 women with ages between 23 and 59 years old in EE Fernando Lobo – Juiz de Fora-MG.

Materials: A paper questionnaire was developed, the first page consisting of instructions on magnitude estimation and the second page consisting of a list of 20 teacher's life events.

Procedure: Magnitude estimation (Stevens, 1975) was used with *Correcting tests* as the standard and no assigned modulus. The standard had occupied the 10th position in previous Experiments. Subjects were to judge events in proportion to their rating of the standard. Stimuli were presented in random order.

Results and Discussion

Table 1 shows that *Facing disrespectful students* (M = 115.4, 112.57)) and *Student disinterest* (M = 90.44, 101.07) were rated highest, while *Class Preparation* (M = 1.7, 10.63) and *Class Exhibition* (M = 3.48, 13.46) were minor life events.

Relationships with teachers and students were ranked the most stressful events. These human relations, though complex, are basic pieces in an individual's behavioral and professional life. In this way, the analysis of the relationships between teacher and student involves both interests and intentions. The problem is, almost certainly, in the failure to match these interests and intentions.

Juiz de Fora's sample (M=18.07) reports low levels of social readjustments compared to São Paulo's sample (M=28.32), indicating that the level of stress there is approximately 1/3 smaller. The Pearson correlation between the two sets of ratings was 0.26. The difference between the means probably indicates that cultural and social factors can have an influence, though it might also be due to different forms of management in the two schools. Beck's Depression and Anxiety Inventories (BDI and BAI) administered to Juiz de Fora's teachers indicated low levels of anxiety and no traces of depression.

Table 1. Geometric means (Juiz de Fora City), geometric means (São Paulo State) and rank order (RO) of teacher's life events

Teacher's life events	Juiz de Fora City	RO	São Paulo State	RO
Salary	290.57	1	13.21	16
Facing disrespectful students	115.4	2	112.57	1
Facing students addicted to drugs/alcohol	105.82	3	48.21	7
Student disinterest	90.44	4	101.07	3
Death of student	61.87	5	70.8	4
Serious diseases of students	57.11	6	40.24	9
Facing discipline problems	55.72	7	108.12	2
Verifying low performance of students	41.11	8	42.13	8
Receiving criticism for low quality of public education	25.34	9	63.45	6
Correcting tests	19.44	10	25.18	10
Class attribution	13.58	11	68.15	5
Filling out classroom diaries	9.92	12	13.26	15
Attending meetings of council of classes	7.41	13	17.61	12
Attending meetings of parents and teachers	6.38	14	13.34	14
Class planning	5	15	23.78	11
Tests preparation	4.66	16	10.5	19
Relationship with superiors	3.75	17	10.24	18
Class exhibition	3.48	18	9.85	20
Giving tests	3.28	19	13.46	13
Class preparation	1.7	20	10.63	17
Means	18.07		28.32	
Number of subjects	19		138	

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CONSTRAINED SCALING IN PSYCHOMETRIC MAGNITUDE MAPPING

Ronald L. Boring¹ and Robert L. West²

¹ Human Factors Department, Idaho National Laboratory, Idaho Falls, Idaho 83415, USA, ronald.boring@inl.gov

² Institute of Cognitive Science, Carleton University, Ottawa, Ontario K1S 5B6, Canada, robert_west@carleton.ca

Abstract

Constrained scaling is a magnitude scaling method in which the participant is first taught a mapping between the stimulus magnitudes of a specific modality and a numerical response scale. Following the successful completion of this mapping, stimulus magnitudes from a different source are presented without feedback, interspersed with the learned stimuli (which still receive feedback). In addition to providing very low individual variability, constrained scaling can also be used to examine magnitude scaling in a very controlled way. In the present study, we examined the role of training on a perceptual modality and testing on a subjective modality (the subjective utility of money in this case). We argue that constrained scaling can be used to capture individual differences where such differences truly exist, making it a useful tool in psychometric as well as psychophysical research.

Constrained Scaling

Ward (1992) suggested that the aim of psychophysics scaling methodologies is often to eliminate biases in order to reveal a true underlying psychological scale. Rather than reducing bias, Ward proposed controlling the scaling situation as much as possible. With these insights, a new approach to scaling was initiated, one that subsequently came to be known as *constrained scaling* (West and Ward, 1994). Constrained scaling works both by calibrating the individual to a mental scale (West and Ward, 1994) and by providing a natural set of scaling units (West *et al.*, 2000). An individual is calibrated to a scale by receiving a set of training stimuli. Each training stimulus is presented, after which an experimental participant estimates the magnitude of the presented stimulus. Finally, the actual scale value is presented to the participant. Over a series of training trials, the participant learns to match his or her magnitude perception to the scale. In order that a scale may be readily learned, it must represent a natural scale such that it can be fit to Stevens' Power Law. Once the participant has learned to match his or her perceptual magnitudes to a scale, the participant receives a novel set of stimuli to scale according to the learned scale. The participant receives no feedback for the novel stimuli, but scale learning is supported and enhanced with reminder trials in which stimuli from the original scale are presented again with feedback. This process results in significantly reduced intra- and inter-participant variability compared with other scaling methods such as direct magnitude estimation (West *et al.*, 2000).

In previous experiments, constrained scaling worked to reduce scaling variability because people perceive physical stimuli in a highly similar way. For example, the way person X neurophysiologically perceives loudness is identical to the way person Y perceives it. There may be slight perceptual variations due to differences in hearing sensitivity, shape of the ear canal, or other factors. But, the process of loudness perception is largely invariant across humans. Similarly, there is a high degree of neurophysiological invariance in the way a person perceives the brightness of objects. Factors such as light or dark adaptation, age-