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# Can Meditational Practice be Measured? A Report on a Quantitative Survey

by Jacques Maquet

In October and November 1977, I administered a questionnaire on meditational practice and spiritual development to 157 Buddhists in the Colombo region of Sri Lanka. During the four preceding years, I had approached the same matters by other methods: the usual anthropological participant observation of behavioral and verbal sequences during field trips in Sri Lanka (1973, 1974), India (1974), Thailand and Burma (1976); the study of the traditional texts, many of which are relevant to meditation, as this practice is considered essential in the quest for liberation; and my own meditational experience, gained during 82 days of intensive training in three vipassanā centers in Asia (Kanduboda in Sri Lanka, the Chonburi Vivek Asom in Thailand, and Thathana Yeiktha in Burma). [See Maquet 1975 a & b.]

The 1977 survey by questionnaire was an attempt to ascertain if it would be possible to study the relationship between the practice of meditation and spiritual development, which are phenomena of consciousness, by quantitative procedures. This is a report of that attempt.

## 1

Before describing this limited survey, its theoretical relevance should be briefly discussed. What is called "the social construction of reality" has become the focal point of interest in a recent and growing trend of anthropological theory. Its fundamental assumption is that a society creates the reality in which its members live. That reality, which is perceived by them as objectively given and independent from the knowledge they have of it, is in fact a collective construction validated by consensus rather than by conformity to an external world. The processes through which "realities" are constructed cannot be easily observed. Now the Theravada tradition seems to offer a privileged case of reality in the making. Those entering the path discard the "wrong views," i.e. the conventional common reality (e.g. there is an identical self from birth to death), and begin "to see things as they are" (e.g. there is no such self). The passage from one reality to the other is obtained through meditation. My hypothesis is that meditators differ from non-meditators in their experience and behavior. They are in the process of moving from the mainstream reality, validated by the implicit consensus of common men (puthujjana) and by the everyday life experience, to the "true reality," validated by the consensus of the noble ones (ariyapuggala) who have realized one of the stages of liberation and by the momentary insights experienced during meditation. This transition from one reality to another should be reflected by a spiritual progress, such as becoming less attached to one's pleasure and prestige, less involved in the pursuit of wealth and power, and more compassionate to others.

In the preceding periods of my research, the influence of the independent variable (meditational practice) on the dependent one (spiritual development) had been established by qualitative methods such as empathic familiarity with a few meditators, impressionistic assessments of the achievements of some recognized advanced monks (as they are freely made by nearly everyone in traditionally Buddhist countries), case histories reported in literature, and comments in doctrinal texts. I wanted to test the applicability of a quantitative approach to the same question.

2

In order to do so, I devised a questionnaire. The first section was meant to assess the intensity and the length of the respondent's practice of meditation by asking: does he/she meditate regularly (everyday, once a week, once a month); for how long each time (less than one hour, one hour, two hours, or more than two hours); for how many months or years has he/she meditated with that frequency. Some other pertinent information was asked such as: sex, age, level of education, and social role (monk or lay person).

Section II was composed of 40 pairs of statements. In each pair the respondent was asked to mark with an "X" the statement which expressed his/her behavior, feelings, or experience better than the other statement.

The questionnaire was administered to four groups. Group A included 21 young men, average age 21 years, who were students in a Buddhist high school (*pirivena*). Eleven of these students were monks. Group B included 19 monks, average age 27.8 years, who were students in a teachers college. Group C included 17 young monks, average age 21 years, who were residents in a monastic training institution. Group D included 100 lay persons, 28 males and 72 females, whose average age was 43.6 years; they were teachers attending a six-week program designed to enable them to teach Buddhism courses in primary and secondary schools.

	Group A	Group B	Group C	Group D
Number:	21 pers.	19 pers.	17 pers.	100 pers.
Youngest:	18 yr.	23 yr.	18 yr.	32 yr.
Oldest:	28 yr.	35 yr.	25 yr.	50 yr.
Average:	21 yr.	27.8 yr.	21 yr.	43.6 yr.
Monk:	11	19	17	0
Lay:	10	0	0	100
Male:	21	19	17	28
Female:	0	0	0	72

TABLE 1 DISTRIBUTION OF THE RESPONDENTS POPULATION

A ten-minute introductory presentation was given to each group in both English and Sinhala. The purpose of the inquiry was explained: "To study, on a statistical basis, the relationship between meditation practice and spiritual development in a Buddhist perspective." It was also pointed out that the questionnaire was not meant to find out what the respondents thought they should do, but what they really did feel or experience. The questionnaires were completed voluntarily and anonymously.

The answers to the questions were intended to be indicators of spiritual development, which was defined according to the Theravāda tradition shared by the respondents.

Following Bhikku Ñyāṇamoli's division of Buddhaghosa's Visuddhimagga (The Path of Purification) into three main parts, virtue (sīla), concentration (samādhi) and wisdom (panīnā), fifteen questions were asked concerning virtue, twelve concerning concentration, and thirteen concerning wisdom. Here are a few examples:

On virtue:

- #4. If somebody achieves something as outstanding as I have achieved
  - my satisfaction diminishes
  - my satisfaction remains the same
- #6. When a friend of mine becomes the friend of another person,
  - I resent it
  - I do not resent it

On concentration:

#26. When I endure some physical pain, usually

- I try to see it "at a distance"
- I worry about it
- #29. When a thought comes to mind
  - --- sometimes, I notice its arising
  - rarely, if ever, I notice its arising

On wisdom:

#36. When reflecting upon my past deeds

- I regret very much some of them
- I try to forget, rather than regret, some of them
- #40. I make offerings and attend ceremonies at the temple,

- very often

- very rarely I perform such rituals

For each of the 40 questions, one answer indicated a more advanced spiritual achievement than the other. The overall score (on 40) of each respondent was supposed to be a rough estimate of his/her spiritual development compared to that of the other respondents. The hypothesis mentioned above led me to expect that meditators would have higher scores than non-meditators.

### 3

In the analysis of the results, the first problem was to determine where to draw the dividing line between meditators and non-meditators. A priori it seemed reasonable to assume that a regular practice of at least a one-hour sitting per day for one year was necessary to expect significant effects of the practice. So the criterion of one-hour daily sitting for one year was used to identify meditators. Only 12 of the 157 respondents met this requirement (2 from Group C, and 10 from Group D, 2 of which were men and 8 of which were women).

### TABLE 2

### **MEDITATORS / NON-MEDITATORS**

(meditator: one-hour daily sitting for one year; non-meditator: less or no sitting)

				Group D/	Group D/	
	Group A	Group B	Group C	Males	Females	Total
Meditators: Non-medita-	0	0	2	2	8	12
tors:	21	19	15	26	64	145
Total:	21	19	17	28	72	157

This number of 12 represented only 7.6 per cent of a total population which varied in age, sex, and social role; it was not likely to provide me with a significant term of comparison. If I considered only the female teachers, the minority of 8 meditators constituted 11.1 per cent of the entire group of 72 women, then the proportion of meditators was higher, and the total population was homogeneous with respect to sex, age, education, and occupation. Now, the crucial question: were there significant differences between meditators and non-meditators in their answers to the 40 questions? I compared meditators and non-meditators among the female respondents of Group D. For the 8 meditators, the average score was 32.4; for the 64 non-meditators, the average score was 31.5. This makes a difference of 2.3 per cent which is not significant.

TABLE 3   MEDITATORS / NON-MEDITATORS AMONG FEMALES OF GROUP D							
	(Overall Scores)						
No. Average Score on 40 on 100							
Meditators:	8	32.4	81				
Non-meditators:	64	31.5	78.7				

### 4

In conclusion, my attempt at measuring meditational practice and spiritual development has produced two results. First, at least a one-hour daily meditation was practiced for one year prior to the inquiry by 7.6 per cent of our population of presumably serious Buddhists. This relatively low percentage was in agreement with the qualitative observations made in Sri Lanka in 1973. Though meditation is well known and deemed to be necessary for attaining liberation, it is practiced on a regular basis by very few Sinhalese Buddhists [Maquet 1975b: 184-185]. Quantitative survey and qualitative observation converged and confirmed one another.

The second result: meditators do not have an average overall score of spiritual development significantly higher (by 2.3 per cent only) than the non-meditators of the same population. My hypothesis—the association of meditation with spiritual development—was thus not supported by the survey findings. In addition they were contradicted by the evidence provided by qualitative methods (phenomenological description based on the close observation of a few cases, analysis of traditional texts, my experiential approach). The qualitative evidence was so overwhelming that the reasons for the disappointing results of the quantitative survey were to be found in shortcomings of application, such as the lack of a sufficient number of advanced meditators and the misunderstandings of some respondents who answered what they knew rather than what they did.

Can meditational practice be measured? For the study of phenomena of consciousness, a quantitative approach has potentialities as a complement to qualitative methods. But it should be used only under certain conditions: The investigator should know each respondent personally to be sure that he/she understands the full significance of the questions, and so be able to assess the meaning of the answer.

These are the practical conclusions that can be drawn from this episode of my ongoing research on contemporary Theravāda meditation.

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