

Comments and Communications

Mathematical Association Resolution

IN SCIENCE for August 10, 1951, there appeared a communication from Professor Lee Lorch, of Fisk University, on the topic of "Discriminatory Practices." Readers of SCIENCE will probably be interested in the following resolution adopted by the Board of Governors of the Mathematical Association of America at its meeting of September 3, 1951. The secretary was also directed to read this resolution at the meeting of the Association on September 4 and to include the resolution in the official report of the meeting to be published in the *American Mathematical Monthly*. The resolution is as follows:

Resolved: The Board of Governors of the Mathematical Association of America affirms its steady intention to conduct the scientific meetings, social gatherings, and other affairs of the Association so as to promote the interests of Mathematics without discrimination as to race, creed or color. The President of the Association is hereby authorized and requested to determine the best means for avoiding discrimination, by consultation on this subject with the various chairmen and secretaries of sections and other appropriate members of the Association, and to report the results of this consultation to the Board.

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Mobilization of the Reserve

THE item in SCIENCE for July 27, 1951, entitled "The Reservist Problem," is not a fair statement of the facts. From personal experience, I know that the Department of Defense has been very slow in calling up scientists in the Reserve. There is functioning a sensible policy for granting delays in reporting for duty, if the individual can show cause based on dependency, research or teaching activities, status as a graduate student, or civilian usefulness in the interests of national health and safety. The blanket deferment of scientists would be a wasteful and thoroughly un-American procedure.

It is a bit tiresome to listen to the complaints of commissioned reservists who fear recall to active duty. No one asked them to stay in the Reserve. They were apparently glad to soak up the gravy—to accumulate points for promotion and retirement by attending "training" meetings near home; some even collected monthly pay checks for inactive duty training. One is hardly impressed by the sincerity of such persons who are now wailing in the expectation of recall to active duty.

The only excuse for having a Reserve is to form a pool of experienced men ready to answer a call to active military service with a minimum of delay. I marvel at the patience of our military leaders who are

confronted with such unwarranted complaints as the one published in SCIENCE.

The claim that military service is leading the country to scientific suicide is pure fiction. In a few highly specialized fields there may be a shortage of technical men. In the majority of scientific specialties, the supply is adequate—and graduate schools are grinding out Ph.D.s at an increasing rate. University and governmental scientific projects are adequately staffed. To date, replacements are not hard to get.

Before our leaders pay undue heed to the demands made by some scientists that they be treated as a chosen group, to be pampered indulgently, I feel that these calamity howlers should prove their point *scientifically* and not by rhetoric or by reference to isolated incidents of misuse of scientists by the services.

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An Auditory Sound Association Technique¹

PSYCHOLOGISTS and psychiatrists frequently rely upon projective techniques in evaluation of personality structure. These techniques permit the individual to give to a picture or visual image the feelings and meanings he carries within himself. They commonly afford a short cut to understanding patients.

Almost all such tests have been in the field of visual association; with the exception of Skinner's work (1-3) and the more recent work of Stone (4), the associations with sounds have been neglected. In order to give clinical psychologists and psychiatrists a working series of sounds that would represent a clinical test, the following work has been done.

Recordings of 100 sounds of varying sorts were played to 117 subjects, and from this first group of sounds certain types have been selected. These sounds have been chosen because they produce a greater response and a more varied content of response and also because they were rejected for significant reasons. The sounds that constitute the present clinical technique are as follows:

1. TRAIN (Leaving station, crowd, depot noises.)
2. SEAGULL, SEA WASH BACKGROUND, CONVERSATION BETWEEN TWO MEN:
 - A. Is that enough. . . ?
 - B. Yah.
 - A. How much is that?
 - B. (pause). Well, just about right . . . isn't it?
 - A. I think that's just about right.
 - B. Put that away now.
 - A. Just about right.
 - B. Would that cover it better?
 - A. Put it away now; are you set?
 - B. O. K., let's go.
3. CHILD CRY AND SEAGULLS, SOFT BACKGROUND.

¹ Project carried out under a research grant from the Palo Alto Medical Research Foundation.

4. CLOCK STRIKING AND CROWD NOISES: "Ya, ya."
5. SLOW DRIP OF WATER.
6. ORGAN AND POEM (Male voice, clearly audible only on italicized words):

*To my years hath destiny denied
The glory of youth. Ah,
How art thou fled from view,
Darling companion of my tender age,
My hope, so sorely mourned!*

*Is this the fate that time all men brings?
Poor wretch, the truth once plain
Thou wert struck down with ease, thy lifted hand
Showing me cold death and a naked tomb
Afar off grimly stand.*

7. CRY FOR HELP AND BACKGROUND NOISES.
8. LAUGHTER AND MAN AND WOMAN CONVERSING:
 - A. Where did that damn thing come from?
 - B. What thing?
 - A. Mother said you can't always get what you want in this world, sister.
 - B. What did you expect?
 - A. Where is Dad? Where did Dad go?
9. MUSIC AND SOBS OF WOMAN (15 sec) AND MAN (15 sec).
10. MAN AND WOMAN ARGUING (Man speaks in anger):

MAN: Now what did you do all that for today! (Mumbling answer).

MAN: Huh? (Mumbling answer).

MAN: You know what I'm talking about! (Mumbling answer).

MAN: There's no excuse for it. (Mumbling answer).

MAN: You know damn well what I mean! (Mumbling answer).

MAN: You certainly did, and I'm ashamed. (Mumbling answer).

WOMAN: Well, I wouldn't talk if I were you!
11. MUSIC AND WATER SOUNDS, ENDING WITH RUSH OF WATER (Splash like fish in water or man drowning).
12. FATHER SCOLDING CHILD AND CHILD CRYING: Why! Why! Why!
13. FOOTSTEPS, FASTER, DOORS OPEN, CLOSE, OPEN, RUSH OF FOOTSTEPS.
14. BABY CRYING AND WOMAN SINGING SOFTLY.
15. CRY OF WOMAN AND MAN.
16. SUCKING SOUNDS (Human).
17. GROANING, RUBBING, KISSING (Human).
18. BREAKING WOOD, RIPPING CLOTH.
19. DRILL PRESS.
20. HUMMING AND WHISTLING (Man: Shut up!) MORE WHISTLING AND HUMMING.
21. TRAIN BELLS (Switch engine, loud bang, voices).

Each of these sounds was recorded by a sound engineer and a psychiatrist with the finest recording equipment available; wherever possible they were recorded in the real situation, as, for example, Sound 1. The duration of each sound is from 20 to 50 sec. Occasionally records were used for background noises. In the recording studio words of actors and actresses were subsequently dubbed in.

After brief preliminary instruction by the psychologist, the sounds are played consecutively and responses are noted. The analysis of the initial 100 sounds and preliminary analysis of the final 21 sounds

for 117 protocols have been submitted for publication (5).

This test is of particular value for blind children and adults, and from preliminary work done it would seem to be of value as a supplementary psychological projective technique. Extensive clinical tests are at present being completed.

Records are available for investigation.

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References

1. SKINNER, B. F. *J. Psychol.*, **2**, 71 (1936).
2. GRINGS, W. W. *J. Abnorm. Soc. Psychol.*, **37**, 529 (1942).
3. SHAKOW, D., and ROSENZWEIG, S. *Character and Person.*, **3**, 216 (1940).
4. STONE, D. R. *J. Psychol.*, **29**, 349 (1950).
5. WILMER, H. A., and HUSNI, M. *Lancet* (in press).

Special Libraries

In your pages recently (*SCIENCE*, **114**, 57 [1951]), Herner and Heatwole have written of budgetary, service, and planning considerations with respect to libraries for military research establishments. These and many other aspects of specialized technical libraries are discussed and documented by Jackson (1).

The authors state in footnote 2 that "a permanent agency, the Armed Services Technical Information Agency (ASTIA), has been proposed to perpetuate the work of the unofficial Group for the Standardization of Information Services." This statement is erroneous. A correction is in order inasmuch as a cause-and-effect relationship is implied between two bodies which, in every way except their general field of interest, are quite unrelated. ASTIA is a formalized agency of the Department of Defense. The so-called GSIS is a completely unofficial body of working-level individuals who, simply by agreeing to do certain things in the same way, have been seeking to achieve some standardizations in the technical information operations of four agencies—AEC, NACA, CADO, and NRS. Although ASTIA's components may eventually include the Navy Research Section of the Library of Congress and the Central Air Documents Office, both of which are essentially DOD operations, it does not follow that ASTIA will perpetuate or supersede the work of GSIS, since the other two GSIS agencies, AEC and NACA, are not obligated to DOD. Furthermore, at the time ASTIA was proposed, GSIS did not exist, nor had it demonstrated its effectiveness as an informal coordinating group at the operational level. The authors may have been misled by the previous knowledge that NRS and CADO are concerned in both ASTIA and GSIS although, actually, this dual relationship is quite coincidental.

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Library of Congress

Reference

1. JACKSON, L., Ed. *Technical Libraries, their Organization and Management*. New York: Science-Technology Division, Special Libraries Association (1951).