Contemporary Psychology in the Soviet Union

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THE DRAMA OF THE GENETICS CONTROVERSY, which terminated in the official "victory" of Michurin over Mendel in the Soviet Union in 1948, was re enacted there on a smaller and less dramatic scale during the "Pavlovian sessions" of early summer 1950. At that time it was officially affirmed that there now exist "only two physiologies, pre-Pavlovian and post-Pavlovian," and that the latter is the one prerequisite for a truly "materialist, progressive science" of psychology, physiology, psychiatry, pedagogy, medicine, pharmacology, hygiene, and physical culture (*1, 2*).

The Pavlovian sessions (as the 1950 joint sessions of the USSR Academy of Sciences and the USSR Academy of Medical Sciences are referred to) were held in order to reaffirm and reintroduce *in fact* Pavlovianism into the theory and practice of these disciplines. Undoubtedly, this development must surprise a majority of us, because we have long been led to believe that Pavlovian ideas were fundamental to Soviet theorizing. The truth is otherwise, however. The widespread allegiance to Pavlov, so ostensibly persistent in the literature, has for the most part been merely declarative, and the Pavlovian sessions publicly pointed up what has been for some time apparent to the Russian-reading non-Soviet student.

Soviet psychologists, physiologists, psychiatrists, and others declare, especially in prefaces of books, that the "materialist foundations," which Pavlov "bequeathed to posterity," have always been and still are "basic" to their respective sciences (*3*). But one cannot take such affirmations at face value: not all propaganda is of the strident political sort, and, for the Soviet scientist, statements like the above have a certain "survival" value. Beyond classic Pavlovianism there is very little systematic theory along strictly Pavlovian lines of convincing proportion or degree in either psychology or physiology (*4, 5*).

As a matter of fact, even prior to the Pavlovian sessions, this lack of authentic Pavlovian theory has on occasion been alluded to in the Soviet Union, though obliquely; during these sessions it became the chief item of accusation and self-accusation. Thus, Rubinshteĭn, the only Soviet psychologist to date to have developed a respectable general psychology *on paper,* had to confess to a "grievous sin" (*6*), pointed out by the psychologist Teplov (*7*); to wit, that in his book of 685 closely written pages, *Bases of General Psychology* (*8*), he takes up questions, connected in any way whatever with Pavlovian theory, on only *six!*

Anokhin was similarly embarrassed during the Pavlovian sessions. This physiologist, a leader in his field, dared to have demurred from the widespread practice of seeking only verbal resolutions of difficulties in physiology (*9*); that is to say—if one may be permitted to interpret what Anokhin most likely had in mind—resolutions that are in fact merely exercises in Pavlovian jargonese. Accordingly, Anokhin found himself harshly criticized for almost treacherously turning his back on Pavlov, his mentor and teacher "who had been dead for these many years," and for "attempting to improve on him" (*10*).

Now, it is well known that, contrary to Soviet insistence and claim, Pavlovian theory has proved unacceptable to our contemporary neurophysiologists and, outside the borders of the Soviet Union, excites only historical interest (*11, 12*). According to the Soviet view, however, they are among the "scoundrels" of Western science who assess Pavlovian theory in what we are pleased to call modern perspective.

For example, the fact that Liddell, in his contribution to Fulton's *Physiology of the Nervous System* (*13*), should make only muted reference to Pavlov's achievements and set him a little lower than the gods is taken, not as the neutral estimate of an honest man of science, but as evidence of a "bourgeois plot" to belittle the greatness of one of the Soviet's own (*14,* 11). Sherrington, who opposed the naïveté and crudities of Pavlovian neurophysiology, has, likewise, been made in characteristic fashion the object of a special vilification. Thus, Pavlov and Sherrington personify, respectively, the forces for good and evil in physiology—the one is a "nonmechanistic materialist," the other a "rank idealist;" the former represents "progressive science," the latter "reaction;" and so on and on (*15*).

The present propagandistic glorification of Pavlov has reached incredible proportions. For example, Pavlov is made out as always an upholder of *present-day* Soviet theses. Thus, Pavlov recently became the hero of a motion picture in which he is portrayed, among other things, as a posthumous supporter of Lysenko (*16*)! With an apotheosis of Pavlov akin to Stalin's it is not strange that "deviationist tendencies" from "Pavlovianism" are tantamount to a betrayal of the "people's best hopes" and a sign of "unsoviet servility" to the "reactionary West."

It is not enough that Pavlov, though unsuccessful as a theorist, was an astounding experimentalist and creator of a new methodology. The myth of Pavlov's *all-around* greatness must be maintained at all costs. It *is* being maintained—and at heavy cost, too—as some of the more venturesome scientists in the Soviet Union have been finding out of late.

For years a number of Soviet physiologists have been struggling to free themselves of the Pavlovian

strait jacket while at the same time, to all appearances, circumspectly operating within the Pavlovian terminological framework. These adventurers in physiological theory and experiment achieved some notable successes and attained, in the process, a level of sophistication lacking in earlier work. This, however, has availed them nothing, and during the recent Pavlovian sessions they have retreated, under heavy censure and calumnious attack, to primitive positions prescribed by the representatives of the Party as "truly Pavlovian" (*17, 18*).

Among those who have consistently and assiduously resisted the Pavlovian avalanche, only Beritashvili (Beritov) comes to mind. However, newspaper attacks on Beritashvili have been frequent (*19*), and the inevitable "confession of errors" took place on May 23 of this year at a special meeting called in Tbilisi, ostensibly to discuss the "physiological theory of Academician I. P. Pavlov," but actually to put an end to the intransigence of Beritashvili. Confronted with the charge that his "theoretical views treat the basic processes of psychic activity from the position of idealism and contradict in principle the consistent materialist theory of I. P. Pavlov on higher nervous activity," Beritashvili confessed his guilt and "acknowledged as correct the criticism of his scientific views" (*20*).

Thus, the wheel has gone its full circle. Bekhterev's reflexology, done in by public denouncement at the end of the third decade, now returns as "correct Pavlovian theory." Bekhterev, Pavlov's enemy, now becomes victor in principle, though his name was hardly mentioned during the Pavlovian sessions.

Although Pavlov considered his research on the conditioned reflex as germane to psychology, he, nevertheless, conceived of it as *within* physiology and believed that ultimately the latter might provide the basis for the former (*21*). Bekhterev, on the other hand, had proposed the elimination of psychology altogether as a discipline, because, dealing with the psyche, it was in essence idealistic. In its stead, he formulated a thoroughgoing reflexology (*22, 23*). For attempting this there came a transient triumph and also, after some years, a rather complete renunciation (*24*).

Since the "Trotskyites" of science, when once denounced, stay denounced—this much consistency is demanded amid the shifts of the Party line—the hero of the moment is made to pronounce what had previously been enjoined. That hero is Pavlov, whose own words would strike his ears strangely in the context of present recantation and abject promise to hew to the Pavlovian line in future research. But, ironically enough, the more Pavlovian phraseology is mouthed, the more Bekhterev is affirmed!

Only by verbal formulas is "consciously willing" man saved from "degradation" to a mechanism purely reflexological in operation. These formulas involve essentially "man's unique possession" of a "second signal system," whereby verbal cues take the place of the conditioned physical stimuli constituting the "first signal system." Through the former "signal system" man's behavior, though "based" on physical reflexes, evades a "reduction" to them. "Vulgar mechanism" is thereby avoided, and man kept higher than the animal to whom the "second signal system" cannot apply.

The Pavlovian sessions have been little publicized in the Western world. They are portentous, however, in that in the Soviet Union they are acclaimed as yet another example of not only the "Party's continuing solicitude" for the "proper development" of the sciences, but the Party's announced intention "actively to direct" that development. The writer now proposes to discuss work done in the field of psychology in the Soviet Union and, with the above discussion as background, to indicate how the recent developments have affected this work in its several aspects.

Psychology, as a whole, in the Soviet Union is an uninspiring discipline. It is more a matter of program than of accomplishment. But rather than dwell on its largely negative aspects, it will be more worth one's while to attend to its modest achievements, minor as some of them might be. These are concentrated for the most part in research on conditioning and research on sensation and perception—subjects which we in America classify under psychology or physiological psychology, but which the Soviets regard as coming primarily within the province of physiology, though not always (*25–27*).

As might be expected, a great deal of work has continued in the orthodox Pavlovian vein, but it has not accomplished much except by way of refinement of former studies. Even if one were to disregard or fail to appreciate the internal evidence of the published material, the Pavlovian sessions provide evidence enough of this lack of accomplishment. As a matter of fact, Bykov, who dominated these sessions along with Ivanov-Smolenskiĭ, was voluble in his deprecation of this work (*28*). And it is interesting to note that, for reasons of circumstance, this deprecation falls outside the category of the usual denigration of work and theories to which official hostility has been indicated. Bykov happens to be an out-and-out Pavlovian, and for this reason it is significant that, in his general criticisms, he does not grant too much exception to work done along strictly Pavlovian lines. He avers, and justly so, that basically this work has been an unimaginative rehashing of past experimentation. Bykov emphasizes this, of course, because in the general chorus of *mea culpas* he wishes to give foundation to the charge that even Pavlovians have been remiss in "exploiting the Pavlovian heritage." Thus, he points to the almost complete failure to pursue the Pavlovian theme of the "second signal system," whereby verbal cues substitute for physical stimuli, and laws other than those of the "first signal system" are said to be operative (*29, 30*).

The work of Bykov and his coresearchers, however, must be looked on as a notable exception in this regard. Their area of intensive research has been concentrated largely on the direct conditioning of the

internal receptors and organs, on their relation to the cerebral cortex (*31–33*), and on corticovisceral pathology—that is to say, Pavlovian "psychosomatics" (*34*). Bykov's operating framework is, and has been, strictly Pavlovian. His work, therefore, appears subject to the obvious circumscriptions attendant upon such adherence. Since the writer has had occasion to discuss a number of Bykov's contributions in some detail elsewhere (*35*), further discussion of his interesting school is omitted.

In the field of conditioning, however, the most interesting theoretical and experimental developments have proceeded from the neo-Pavlovian investigations of Anokhin and his co-workers (*36*). For a number of years Anokhin felt that the regularities of reflex behavior discovered by Pavlov and the laws devised by him to cover them were functions of the special techniques employed and gave, therefore, not only an incomplete picture of the conditioned reflex, but also a false one, if one did not recognize the technique-generated quality of the picture.

Anokhin looks on any conditioned response as an integrated complex of motor and glandular reactions, and asserts that it is the experimental situation that determines which of these are made prominent and which subordinate. The Pavlovian laws of conditioned salivary reaction obtain because, under standard Pavlovian experimental conditions, the motor components of the integrated complex are minimally expressed. Change the experimental conditions, and the Pavlovian laws and formulations become inadequate to the situation.

To escape the limitations of the standard Pavlovian technique, Anokhin devised a general method, which he calls the "method of active choice." This provides for precise recording of salivary secretion and free motor movement during and subsequent to training a dog to react variously to two or more spatially distributed goals in the form of reward-boxes (*37*).

Out of these investigations Anokhin has developed a theory of conditioning which in sophistication appears to surpass by far the neurophysiologically unacceptable formulations of Pavlov. In Anokhin's theory the role of reflexes as such is subordinated to that of large-scale functional systems, which not only account for "situational conditioning," but have the dynamic property of modifiability and self-correctability of course of action in conformity to the changing demands of the situation—changes frequently brought on by the very behavior of the animal itself (*38*). In Anokhin's own words, a functional system is "each organization of nervous processes, in which separate and various impulses of the nervous system are united on the basis of a simultaneous and cosubordinated functioning terminated by a useful adaptive effect" (*39*, 32).

Anokhin was severely condemned for his "deviationism" during the Pavlovian sessions. His work is a matter of record, however, and, even though rejected in the Soviet Union as heretical and "Sherringtonian," the results of his theoretical and experimental efforts are likely to be of interest to the American psychologist, if ever they are made available in English.

The work of the renowned physiologist Orbeli and his school appears to be of some importance, and it is regrettable that knowledge of his experimental results and conclusions is limited largely to the Soviet Union, which since the Pavlovian sessions has disowned them as being both "anti- and non-Pavlovian in content and direction." Orbeli devoted much of his research to a study of the role of the sympathetic nervous system in the various processes of the body—research that purports to demonstrate, among other things, the sympathetic innervation of the striped musculature and the influence of the sympathetic nervous system on the central nervous system itself (*40–44*).

Orbeli's supposed preoccupation with the sympathetic nervous system, as a matter of fact, was taken to club him down. He was alleged to have deliberately gone against the Pavlovian thesis of the "dominant role of the cerebral cortex" and to have, therefore, "consistently shunned the undertaking of investigations which would prove its preëminent role in the life and activity of organisms;" in other words, if we understate and moderate the Soviet accusation, he "ignored the cerebral cortex in his investigations" and thus "belittled the wholeness of man" (*45*).

Why investigation of sympathetic nervous structure and function should be regarded as per se a denial of the study of the whole man reflects perhaps that peculiarity of the Soviet official mind which sees non-cerebrally oriented physiological research as constituting an ultimate threat to the contemporary Soviet conception of man as primarily rational, consciously motivated, and free-willing. Why so? Because, for one thing, the psyche is seen as residing in the cerebral cortex, and "psyche" and "cerebral cortex" are made to function as interchangeable symbols in propositional statements. Thus, Ziuzin, for example, speaks of the "influence of the cerebral cortex—psyche—on the cardiac-vascular system . . ." (*46*, 3). Therefore, to do research on the sympathetic nervous system slights the cerebral cortex, hence slights the psyche, hence slights the Soviet's idealized conception of the "new Soviet man"! Thus such research ultimately subverts the Soviet order and must be "corrected."

Orbeli's work is to a considerable degree marked by a devotion to the evolutionary point of view, and the apparent richness of his phylo- and ontogenetic studies seems to bear witness to the value, in his hands, of this approach (*47–49*). Like Anokhin, however, Orbeli has been excoriated for introducing into physiology "false direction, stagnation, and unhealthy subservience to both person and theory"—that is to say, subservience to Orbeli himself and to the program of research initiated and advocated by Orbeli, as director of research. The degradation of Orbeli, which began with Lysenko's successful championing of the so-called "progressive Michurinian biology" in the 1948 sessions of the Lenin All-Union Academy of Agricultural Sciences (*50*), took on ultimate depth when his initial recantation before the Pavlovian

meetings was rejected as "unsatisfactory" because "he did not make a clear criticism and analysis of his admitted errors" (*51, 52*).

On turning to the field of sensation and perception, one encounters considerable work of apparent competence, particularly in the visual area. The emphasis of research has been on "sensory interaction," although other aspects have not gone unheeded.

The major point was established that the secondary or, rather, accessory action of any number of sense modalities can affect the threshold and course of action of a given sense modality. Thus, auditory stimulation as a rule lowers the visual threshold for twilight vision, and a number of other interesting effects have been observed. Kravkov, in particular, and his coresearchers have made a number of solid contributions to the study of sensory interaction, a problem that has occupied the attention of Soviet workers for some years now (*53–57*). Since so little of this contemporary work is available outside the Russian language, it will be interesting to detail some of it in order to indicate both the level of research involved and the experimental results claimed for it.

Any nonvisual stimulation that increases retinal sensitivity to green light has been found to decrease it to red light. The reverse is also true: any nonvisual stimulation which increases retinal sensitivity to red light decreases it for green. From this and other evidence the inference is drawn of the coexistence of two color-apprehending systems with opposed action: one keyed to sensing the red-orange long-wave portion of the spectrum; the other to sensing the green-blue short-wave part—each system also affecting adversely the other upon extraneous modal stimulation (*58, 59*).

The opposite response-character of these two color-apprehending systems is referred to the presumably different reactions of these systems to changes in the state of the autonomic nervous system. Thus, it is found that substances which heighten sympathetic excitability, such as adrenalin and ephedrine, increase retinal sensitivity to light in the green-blue region of the spectrum. On the other hand, substances that heighten parasympathetic excitability, such as pilocarpine, increase sensitivity to light in the orange-red region (*60*).

Furthermore, as already mentioned, these two color-apprehending systems have been discovered to affect each other in a reciprocal fashion: excitation of the green-sensing apparatus depresses the excitability of the red-sensing counterpart, while increasing that of the blue-sensing apparatus. In interactions of this kind the yellow-sensing system is thought of as nonparticipant (*61*).

Insight into these phenomena has been gained by studies of the influence on color vision of direct electric current of weak intensity applied to the eye. Thus, when current is applied to the dark-adapted eye, color vision is affected in an interesting manner. If the anode is applied to the eye, color sensitivity is changed in exactly the same manner as when sympathetic excitatory substances are employed. If, however, the cathode is applied instead, color sensitivity alters in the direction indicated by the action of parasympathetic excitatory substances (*62*).

Theoretically, these phenomena are correlated with differences in the relative concentrations of potassium and calcium ions built up by electrical stimulation. In confirmation, it turns out that direct calcium or potassium ionic application to the eye affects color vision in exactly the same way, respectively, as anodal or cathodal contact (*63*). This, then, is taken to suggest an ionic part-basis for the opposed action of the blue- and red-apprehending systems.

There are many other interesting investigations in sensation and perception that one might allude to outside the field of sensory interaction. For example, it is known that exposure to loud noises raises the auditory threshold. If it is suggested to a subject under hypnosis that all around him there is deafening noise, on awakening it is found, through threshold determinations, that auditory sensitivity has decreased. From this result it is concluded that, along with the conventional peripheral factors, a central factor is involved in auditory threshold alteration (*64*).

To round out the positive side of the picture, one ought certainly to mention the work of Luriya on brain function in its normal, pathological, and restorative aspects (*65–67*), the researches of the comparative psychologists Voĭtonis and Roginskiĭ (*68–70*), and Beritov's studies of "individual behavior by the method of free movement" (*71, 72*). This work is of considerable interest and deserves more than passing allusion. Detailing of this work is a special task in itself, however, and is accordingly postponed for subsequent exposition elsewhere.

With all the allowances that one may make in consideration of the positive contributions that have been here set forth, one must, nevertheless, adjudge the general "situation" in psychology, physiology, psychiatry, and related fields as unsatisfactory. This is an estimate on which one may concur with the Soviets, though for different reasons. In many areas there is "stagnation"—to use the current Soviet term popularized by Stalin in his strictures against the followers of Marr in the field of linguistics (*73, 74*). This has been publicly stated and admitted in detail (*75, 76*).

The solution in part would seem to be to loosen the paralyzing grip of Pavlov. But for the Soviets the solution has been to get *back* to Pavlov. In characteristic Soviet thought-style, stagnation has set in because the followers of Pavlov had strayed from the true path as prescribed by Pavlov (of course, as construed by those who have arrogated to themselves the contemporary right to judge the orthodox from the heretical Pavlovian). Salvation thus lies in embracing a Pavlovian fundamentalism which in effect reinstates reflexology.

This is not the first time in the history of science that a great man has been an impediment to the subsequent development of the very field to which he himself has contributed so much or which he himself has created. It is paradoxical that the "Pavlovian heri-

tage" will be truly exploited only by freedom from its shackling formulations, as experience here in America is demonstrating. But at present it is hopeless to expect an acceptance by the Soviets of this elementary thesis. Reaction and retrogression have taken over here as in some other sciences—all in the name, strangely enough, of progress and the good of humanity (*77*).

Apart from physiological psychology, broadly conceived, what are the real features of contemporary Soviet psychology—not in fine programmatic future perspective, but in fact? There is a great deal of the former recorded; not too much of the latter.

Since the famous 1936 resolution against "pedological distortions" in the Soviet school system (*78–80*), psychology has been relegated in the main to the service of pedagogy, where it has been grubbing out a somewhat pedestrian existence. Its contributions within this area have been neither large in quantity, nor particularly distinguished in quality—some of it being, in fact, quite low. For example, on the basis of an observational study of three gifted children over an extended period of time, Leĭtes, of the Psychological Institute of the RSFSR[1] Academy of Pedagogical Sciences, notes that "talent" is accompanied by a "remarkable inclination for work;" that is to say, a remarkable drive to activity in the exercise of this talent. From this limited observation the conclusion is drawn that it is precisely this "inclination for work" which "generates talent" and, hence, that, "when a teacher arouses interest and love for work, he is directly influencing [children in the direction of] giftedness." In other words, "the secret of the remarkable talent [displayed by gifted children] is their heightened inclination for work." From all of which a *non sequitur* is drawn that borders upon, if it does not reach, the ludicrous:

> And if one should speak of the various [degrees of] cleverness [severally appropriate to] the different social groups, then one is forced to acknowledge, in spite of the test data of foreign scientists, the greater talent of the working classes in comparison with that of the parasitic classes. [And why? Because] workers have one enormous advantage—an inclination to work [!] (*81*, 48).

Teplov, a leading Soviet psychologist and member of the RSFSR Academy of Pedagogical Sciences, from whom more circumspection might be expected, cites and commends these conclusions as demonstrating the Soviet theses of the "unity of work and creativity" and their joint nobility as opposed to the alleged polarization of the two by the "bourgeois psychologists" (*82*). Elsewhere, however, Teplov asserts more moderately that "in the absence of a certain basic core of capabilities a great passionate love for an activity [ordinarily] cannot arise and that, if it did, a man would have always to overcome his weaker sides, to spur on his lagging capacity, and to fight his way to full development of his talent" (*83*, 192–193.)

[1] Russian Soviet Federated Socialist Republic.

On turning to psychological periodic literature, one finds it to consist, for the most part, of articles published in the *Bulletin of the RSFSR Academy of Pedagogical Sciences* (*Izvestiya Akademii Pedagogicheskikh Nauk RSFSR*) and occasionally in *Soviet Pedagogy* (*Sovetskaya Pedagogika*). Articles of general psychological interest are also to be found distributed over a range of publications from the *Teacher's Newspaper* (*Uchitel'skaya Gazeta*) to the journals *Problems of Philosophy* (*Voprosy Filosofii*) and *Bolshevik* (*Bol'shevik*), the latter the authoritative organ of the Communist Party. The quality of psychological publication in these journals is extremely uneven. Thus, in the issue of the *Bulletin of the RSFSR Academy of Pedagogical Sciences* containing Leĭtes's article, there is a paper by Ignat'ev (*84*) on the "psychological analysis of the process of drawing," which would rank high by standards of publication elsewhere.

Some of the articles in the literature make strange reading, being hortatory and, frequently, for seeming want of content, excessively polemical. For example, instead of the psychology of mere man, we read about the psychology of the "new Soviet man." The latter turns out to be an enumeration and armchair discussion of the desirable characteristics that man, reared under Soviet conditions of life, *should* possess (*85*). Instead of a systematic elaboration of theory based on experimental data, we have a tremendous expenditure of energy on refutation and combat of "harmful" theories, "trends," and "tendencies." Nothing is offered by way of replacement or countersuggestion except vaguely spelled-out pronunciamentos and exhortations to do better.

The intrusion of political propaganda into serious scientific literature is decidedly pronounced. To cite a moderate example, Grashchenkov (*86*), writing in the journal *Neuropathology and Psychiatry* (*Nevropatologiya i Psikhiatriya*), concludes his article entitled "For a New Blossoming of Soviet Neuropathology and Psychiatry," with these words:

> The research institutes of our specialty should head the struggle against each and every slanderous distortion of the Pavlovian scientific heritage by foreign neuropathologists and psychiatrists who are fulfilling the will of their Anglo-American imperialist masters, propagandizing idealism as a means of suppressing the self-consciousness of the broad masses of humanity and as an instrument for their stupefaction.
>
> We all have confidence in the victory of progressive materialist Pavlovian physiology, which joins forces with the progressive generalizing dialectical materialist theory of Marx-Engels-Lenin-Stalin.

One may illustrate further the state of affairs obtaining by reference again to the psychologist Rubinshteĭn, who in 1940 turned out quite a respectable general psychology—a real accomplishment for which he received the Stalin prize in 1942. This general psychology was ostensibly based on five general principles: the principle of psychophysical unity; the principle of the developmental unity of the psyche

and organism (both phylo- and ontogenetically); the principle of historicism; the principle of the unity of theory and practice; and the culminating principle, that of the unity of consciousness and activity (*87*). One may in this connection allude also to a sixth principle, which is explicitly recognized everywhere and which may be referred to as the principle of partisanship—communist partisanship, of course.

Rubinshteĭn was subjected to unreasonably harsh criticism in a session called in 1947 to discuss the second edition of his general psychology, which had appeared the previous year. He was given considerable rough treatment because he neglected the psychology of the "new Soviet man," because he did not "correctly resolve the psychophysical problem," because he had a style of writing that was impossible, and so forth. Moreover, Rubinshteĭn's application of the sixth principle was such as not to exclude evidences of a scholarly urbanity in his treatment of foreign psychologies. And because of this, particularly, he was roundly denounced; for lack of partisanship even in the exposition of foreign theories is automatically to make of oneself a "servile fawner" upon them (*88–90*).

The question may now be asked: what has come out of all this? A new book on general psychology by Rubinshteĭn or anyone else? Nothing beyond the elementary level (*91–93*). New theories, worked out systematically and implemented with experimental data? None that the writer has happened upon. The truth is that public accusation and self-accusation, even in the Soviet Union, accomplish no science. Scientific advance is not evoked by the mere exercise of criticism and self-criticism in public sessions, or by the unanimous concurrence of opinion at their termination.

With all the talk in the Soviet Union about the unity of theory and practice, with all the fanfare about psychology's preoccupation with the practical problems of pedagogy and the achievements of the latter as a result, one should expect an array of high-level reported work, at least on those standard problems that present an acute challenge to the sincere teacher. Degree and scope of achievement even here, however, are surprisingly limited. For example, although Russian dialects pose a serious problem to the teacher of standard Muscovite Russian, as of 1947 no general methods or texts had been developed to cope with it in any major dialectical section of the Russian-speaking areas of the Soviet Union (*94,* 102)!

Furthermore, there seems to be entirely too much research devoted to the dry history of pedagogy (*95*) and too little to the brass tacks of teaching, to say nothing of the way the theoretical and psychological foundations of pedagogy, with some exceptions (*96, 97*), are being bypassed. Thus, the *Bulletin of the RSFSR Academy of Pedagogical Sciences* recently could find room to devote 203 of its large-size pages to a history of the teaching methods of "explanatory reading" in vogue from 1850 to 1917, though its issues are limited in number (*98*)!

Although it would be instructive and interesting to elaborate further, this survey has proceeded far enough for one to perceive that the content, state, and condition of psychology in the Soviet Union present a very uneven picture and that, as a science in the Soviet context, psychology has prospered only in those areas ancillary or contiguous to physiology. Whether recent extrapsychological developments constitute a threat to further progress in these limited areas cannot, of course, be answered, although on this score one may justly entertain some uneasiness.

It is also evident that the political and ideological strait-jacketing of psychology has been both restrictive and deleterious in its effect on this science. Since 1936 it has been largely kept to routine pedagogical investigations. It thus lacks generalized scope. A psychology that in practice excludes, for example, psychotherapy as a subject of study is assuredly one that denies itself a sufficient generality, particularly when there is no psychotherapy to speak of as a specialized subdivision of scientific endeavor in the Soviet Union.[2] And when one learns further that, of all things, there is practically no industrial or social psychology[3] worthy of the name, nor is any encouraged, one may be allowed to come to the restrained conclusion, particularly in view of the total evidence, that the circumscriptions that beset psychology in the Soviet Union are severe and narrow enough to throttle both its originality and healthy growth.

In view of the tendency to emotionalized generalization in these difficult and intemperate times, the writer wishes, before concluding, to allude to the need for caution in passing judgment on the Soviet scientific scene as a whole. Although much that he has remarked about the science of psychology bears on the situation in other sciences and reflects more or less similar features of control, retardation, and even retrogression, to generalize would be misleading. Certain areas of mathematical research, for instance, rival output in the best centers elsewhere (*102*), and almost the same might be said of some branches of the physical sciences (*103*). There are, to be sure, signs of growing interference even here, but the more necessarily esoteric the vocabulary of a science and the more remote its theory from the direct comprehension of every-day practitioners, the better its chances for an autonomy of sorts. The picture is by no means all black, and it would be folly to exaggerate for total effect a situation that is bad enough.

Psychology in the Soviet Union has had its radical

[2] Wortis, the author of a recent book on Soviet psychiatry (*99*), makes mention of the lack of any "formalized" psychotherapy. Wortis, however, ascribes its absence to the inherent on-going therapeutic aspects of Soviet society—hence, no need for psychotherapy as such. This is an uncritical attenuation of the brasher Soviet claim that, since the neurosis-breeding "contradictions of capitalist society" do not exist in the Soviet Union, they are not reflected there and that "bourgeois" psychotherapeutic measures are, therefore, both inappropriate to the scene and unneeded in general (*100*).

[3] Industrial psychology is equated to "psychotechnic," which was denounced, along with pedology, as being a "vicious, bourgeois importation." For discussion on pedology, see *101*.

shifts before at the behest of Party interlopers (*104*). Yet, however unlikely in the immediate future, one cannot discount the possibility of another change—this time more in the direction of what we, perhaps presumptuously, would like to call the better. But, until such time, Soviet psychology, strait-jacketed and dogma-bound, will probably continue to be the discipline of little significance that it is now.

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