There's a Mettler to meet any weighing need!

There are more than 100 Mettler models to choose from. They range from .1 mcg. precision to 13 kg. capacity, all with single-pan convenience and speed. Whatever your weighing need, it can be met by a Mettler. If you'd like to know more about Mettler Balances, write: Mettler Instrument Corp., 20 Nassau St., Princeton, N. J.
Kodak reports on:

color vision instead of brain strain... getting a project off the ground by lightening the budget
... how to duplicate the ubiquitous

When many channels vex the mind

Avoid brain strain. Why waste high-powered deductive reasoning on tasks just as well accomplished through mere color vision? Primates like you generally have use of color vision free of charge. We (Instrumentation Products Division, Eastman Kodak Company, Rochester, N. Y. 14650) can supply name of nearby dealer who now accepts orders for Kodak LINLINEGRAPH 705 Paper. Comes in widths 3¾-in. to 12-in., lengths to 400 feet.

Blue light, as through a Kodak Wratten Filter No. 34, falling on this paper leaves a red trace; green light, as through Wratten No. 12, a blue-green trace; white light (or an overlap of the blue and green light), a nearly neutral black one—after running the paper through an oscillogram processor where in the four regular baths have been replaced from a Kodak LINLINEGRAPH 705 Processing Kit that you had better order from the dealer while you are at it.

We mention oscillogram processors. If the place where you work takes much interest in physical phenomena at frequencies above one cycle/sec, there may well be an oscillogram processor around. Take it over. Tell them to have it replaced with a new Kodak EktaLine Processor, which will get them out of their hole by at least quadrupling the speed at which they handle the paper pouring out of the oscillographs that abound on the premises.

Now then, for your own case. Clearly, with many channels overlapping often, the untangling of them can tax the mind to distraction if they’re all black all over. From that address parenthesized three paragraphs back, counsel can be struck forth as from a flowing spring on problems of feeding facts to the mind by permitting this product to exploit the indescribable distinctions of color. It’s so sensitive you can draw a red line on it at 4,000 feet per second. Oscillography may even be farthest from your thoughts.

Tourists adore it

This is a 5X enlargement of 8mm movie film in the format in which it has served admirably to bring joy to the grandparents of a significant fraction of the population now 30 years of age or under. Do not scoff at the importance of bringing joy to grandparents.

Right now the most up-to-date families scooting across the land on vacation are making their 8mm movies on this format. This spring we introduced a line of Kodak INSTAMATIC Movie Cameras and Projectors which, thanks to the precision with which inexpensive items can now be manufactured in great quantities, can devote far more of the film to picture. The 50% increase in picture area, coupled with today’s sharper Kodachrome Film, has markedly upgraded the quality of 8mm movies. This fact deserves the attention of scientific workers who would sooner swallow three pounds of marshmallows than serve as official photographer for a post-kindergarten birthday party but who want to use movies for data-gathering in work where the new “Super 8” quality level and the lightening effect of 8mm on the film budget (as compared with professional-grade costs) might get the project off the ground.

Pure fat stuff

In many pleasing ways do food processors control the physical behavior of their wares with monoglycerides. Not only are monoesters of glycerol ubiquitously present in living tissue but so are the monoethers. It’s when we purify the esters by molecular distillation that they show their full commercial merit. We can also suggest some ways to prepare them (and the others) far purer than makes sense for food.

To make one of the α-esters, get your glyceryl moiety from

\[
\text{CH}_3\text{CH(OH)}\text{CH(OH)}\text{CH}_3
\]

... only the desired position is exposed. We call it 2,2-Dimethyl-1,3-dioxolane-4-methanol (Eastman 4300). It also goes by the name “1,2-O-isopropylidenglycol.” React with the acid chloride of your fatty acid and hydrolyze the product in acidic methanol. For the ethers you first make the methanesulfonate of your fatty alcohol and condense Eastman 4300 with either potassium in absolute benzene or KOH in xylene before running the main reaction. Instead of Eastman 4300, you can use 2-Phenyl-1,3-dioxolane-4-methanol (Eastman 9382).

For β-monoesters we offer an isomer of the latter where only the middle hydroxyl is exposed, namely 2-Phenyl-m-dioxan-5-ol (Eastman 9318).

Procedural abstracts on request from Distillation Products Industries, Rochester, N. Y. 14603 (Division of Eastman Kodak Company). This is the fountainhead of all those Eastman Organic Chemicals that the world shouldn’t be asked to get along without.

This is another attempt by Eastman Kodak Company to probe at random for mutual interests and occasionally a little revenue from those whose work has something to do with science.

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SCIENCE, VOL. 149
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... and more appropriately applies the methods which the case calls for.”) A therapist who is able to “more readily recognize the actuality of the situation,” because he has many hypotheses open to him, is more apt to see his patient “as he really is.” . . . As Chamberlin points out, there may be some danger to this approach, particularly the danger of vacillation. But if the therapist is free to explore his own in-

terpretations for working hypotheses. The patient brings some aspect of his experience to the therapist—a problem, a memory, a feeling, a dream. The therapist, drawing from the many possible interpretations and practices offered by a variety of theories, says or does what is most applicable—as dictated not by a particular theory or technique but by what he already knows about the patient. (In Chamberlin’s words, “The investigator armed with many working hypotheses is more likely to see the true nature and significance of phenomena when they present themselves . . . and more appropriately applies the methods the case calls for.”) A therapist who is able to “more readily recognize the actuality of the situation,” because he has many hypotheses open to him, is more apt to see his patient “as he really is.” . . . As Chamberlin points out, there may be some danger to this approach, particularly the danger of vacillation. But if the therapist is free to explore his own in-
decision with his patient, this, too, may encourage the human “encounter” so valued by some therapists of the “existential” school.

Some training institutions are teaching their therapy students a broad range of theories and techniques. But I do not know of any institution that uses the method of multiple working hypotheses as an explicit approach to psychotherapy. Possibly because of the fervor with which the adherents of various ruling theories tend to write, or because the students tend to model themselves after teachers who themselves are adherents of one theory or another, or because, as Chamberlin suggests, it is easier and more interesting for the young “to argue a theory or accept a simple interpretation than to recognize and evaluate the several factors which the true elucidation may require,” one finds beginning students in therapy leaning towards one theory or another in their therapy. The fault may lie with the teachers; as Chamberlin has pointed out, the method is difficult if not impossible to communicate in words, and “there is therefore a certain predisposition on the part of the practitioner of this method to taciturnity.”

Perhaps the student must get a feeling of confidence in his use of a single theory before he can become broad-minded enough to accept the possible partial validities of other theories. Perhaps the method advocated by Chamberlin can be applied only by the worker who has reached a certain level of experience and maturity. But it is to be hoped that ways can be developed to teach the method, not only to psychologists but to scientists and to users of science in all areas, in more explicit fashion than is now being done. Rather than rely on apprenticeships, internships, clerkships, and other traditional methods of teaching which depend to some extent on chance encounters, perhaps more direct methods can be devised. . . .

I can see one problem: The history of science suggests that great advances are made through the development of theories which are held to and fought for in almost irrational fashion by their inventors and followers. If everyone in science becomes as clear-headed and as rational as Chamberlin seems to have been, where will our new theories come from?

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Department of Psychology,
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