

Why You Can't Have "Mixed Feelings"

If You Are Eating Ice Cream and a Bad Smell Greet You; Or If You Are Enjoying Exquisite Music and Somebody Tickles Your Ear--Scientific Experiments Show That Either Pleasant or Unpleasant Sensations Are Produced, Not Mixed Feelings

In a certain type of novel you are very likely to read a statement like this: "Herbert beheld Mabel with mixed feelings of joy and pain."

But the same conception is held much more widely than in the minds of simple story writers. The great majority of persons are evidently under the impression that they have "mixed feelings," due to conflicting states of mind and physical conditions. It is almost a daily occurrence to hear some one speak of his or her "mixed feelings." Statesmen and financiers are supposed to have them. Indeed, an old-time psychologist has declared that "mixed feelings" are the usual condition among mature persons.

Now modern psychological science has turned its piercing searchlight upon this interesting matter and demonstrated that there are, strictly speaking, no "mixed feelings." You cannot feel pleasure and pain at the same moment.

This investigation was conducted by Professor Paul Thomas Young, Ph. D., of the Psychological Laboratory of Cornell University, who reports his observations in the American Journal of Psychology. It brought out many interesting facts. Some intelligent persons thought they had "mixed feelings," but on inquiry it frequently appeared that they experienced rapid alternations of different feelings. Thus it was shown in this experiment, as in so many others, that many people knew very little about their own machinery for registering sensations.

If the conventional novelist referred to had written "Herbert beheld Mabel with rapidly alternating feelings of joy and pain," he would have been nearer the bounds of scientific accuracy.

The experiments were carried on during five months at the university. The subjects tested were nine workers in psychology or in educational lines, including men and women. Each one underwent two hours of experiment in a week.

One form of experiment was to ask the subject to put himself into a definitely unpleasant state of feeling and then to apply some pleasant sensation to him. For example they asked the subject to omit breakfast and when a hunger unpleasantness had been established they superinduced pleasure by the smell and taste of food.

In one situation pleasure was aroused by stroking the forehead gently with velvet, and then unpleasantness was excited by sandpapering the tip of the nose or chin, or by presenting the odor of stale cheese.

The answers described as "psychological" that is, in the proper form, invariably showed no "mixed feelings." An unpleasant and a pleasant picture being exhibited, this answer is typical of this class:

"The first was unpleasantness; the next was pleasantness. A relaxed feeling—relief, no strain. There was no carrying over; the transition was quick as a wink."

This report, which was elicited when velvet was first applied to the face, then sandpaper, is another good example of the psychological class:

"First pleasure, there is no question about it. It was followed by unpleasantness. There was surprise and resentment. Then alternating pleasure and unpleasantness; then unpleasantness; then pleasure; then neutral and just at the end it was pleasure."

In some experiments different forms of pleasure were administered at the same time. The professor caused a tune like the exquisite, soothing "Barcarole" from Offenbach's "Tales of Hoffman" to be played to his subject, while he gently tickled her. Her report suggests a very complex state of feeling:

"Both experiences were pleasant, and one was a tickling pleasure, while the other was a soothing pleasure. You seem to get the body divided. All down the central core and on my left I could feel the smooth, swaying rhythm of the movement, whereas on the right of the head and shoulder there was this pleasant tickling feeling."

In another situation the professor and his colleagues resorted to "a form of torture" in which water was made to drip on the subject's forehead and run down his or her face. When unpleasantness had been established they presented perfumes, chocolate peppermint candies, chords upon tuning forks, etc.

In another case a girl subject partook of a luscious dish of strawberry ice cream, when a bottle of asafoetida was suddenly held to her nose. Another time she was given an ice cream soda and a horrifying picture was thrust before her.

Other situations involved pleasant and unpleasant memories, dizziness, tickle in nose and ear with a broom straw, warmth and cold, honey, noise and numerous other stimuli.

The following stimuli or "sensation rousers" were used:

1. For the nose: Vanilla, chocolate, orange, lemon, heliotrope, rose perfume, crab-apple blossom perfume, white oil of juniper, oil of bergamot, oil of mace, cloves, bitter almond, nitrobenzol, nutmeg, coffee, asafoetida, stale cheese, onions, sulphuretted hydrogen and castor oil.

2. For the taste: Sugar solution, salt solution, quinine solution, vinegar, chocolate, peppermint candy, sarsaparilla, alum solution, castor oil, solution of vinegar and quinine, apple, banana and honey.

3. For the touch: Cotton (for pressure and tickle), broom straw (for tickling the nose and ear), sharp nail (for poking the forehead), heated and cold brass, sandpaper for sandpapering the chin, nose, forehead, teeth and arm; clothes pin for pinching the nose; rubber band, to snap against neck; piano hammer, to rap forehead; cow-itch, to produce itch, etc., etc.

4. For the ear: A set of König forks, single tones, chords and discords, blown bottles, mouth organ, harmonium, organ pipe, metal file (shrill), to produce ear-piercing noise), metronome (worked at various rhythms), tomtom, rattle, sizzle (soda in cup), crumpling paper, crash with wooden box dropped on floor, squeak (cork turned in bottle), filing saw and glass.

In order to excite feelings of pleasure and unpleasantness through the eyes they displayed pictures of horrible and terrifying character, colored plates of skin diseases and pictures of charming subjects.

All these sensation rousers were applied in various combinations, and the subject was asked to report what he felt promptly at a given signal. Out of 2,212 reports only 71, or 3.21, described mixed feelings. Of these 71 reports, 37, or 52 per cent, are by a single subject, a young woman, which is strong evidence of some personal peculiarity in her way of reporting. Then 28 of the 71 reports were doubtful about the mixed feelings.

Five subjects out of nine reported no mixed feelings. Those who gave their answers in correct psychological form always reported no mixed feelings. The overwhelming weight of evidence was therefore against them.

Professor Young, commenting on these experiments, remarks "how far from the truth, then, is the statement of Ladd that almost all neutral states which are marked by strong feelings in the case of developed minds are mixed feelings." The authority referred to is Professor G. T. Ladd, of Yale University, one of the best known psychologists in the country, whose work was chiefly done before the introduction of psy-

Produced, Not Mixed Feelings



In This Experiment a Young Woman Was Given an Ice-Cream Soda—and Suddenly Shown a Very Unpleasant Picture. The Pleasurable Sensation of the Soda at Once Was Replaced by Consciousness of Unpleasant Shock at the Picture. There Was No Mingling of Pleasant and Unpleasant Sensations.

chological laboratory methods.

In many cases the answers, though speaking of mixed feelings, showed clearly to the psychologist that they did not co-exist. For instance, when a girl's forehead was stroked with velvet, while a clothespin was fixed to her nose, she reported:

"A mixed feeling toward that clothespin on my nose. I believe they alternated."

A subject was told to think of the most uncomfortable day of her life and then a chocolate peppermint was popped into her mouth. She reported:

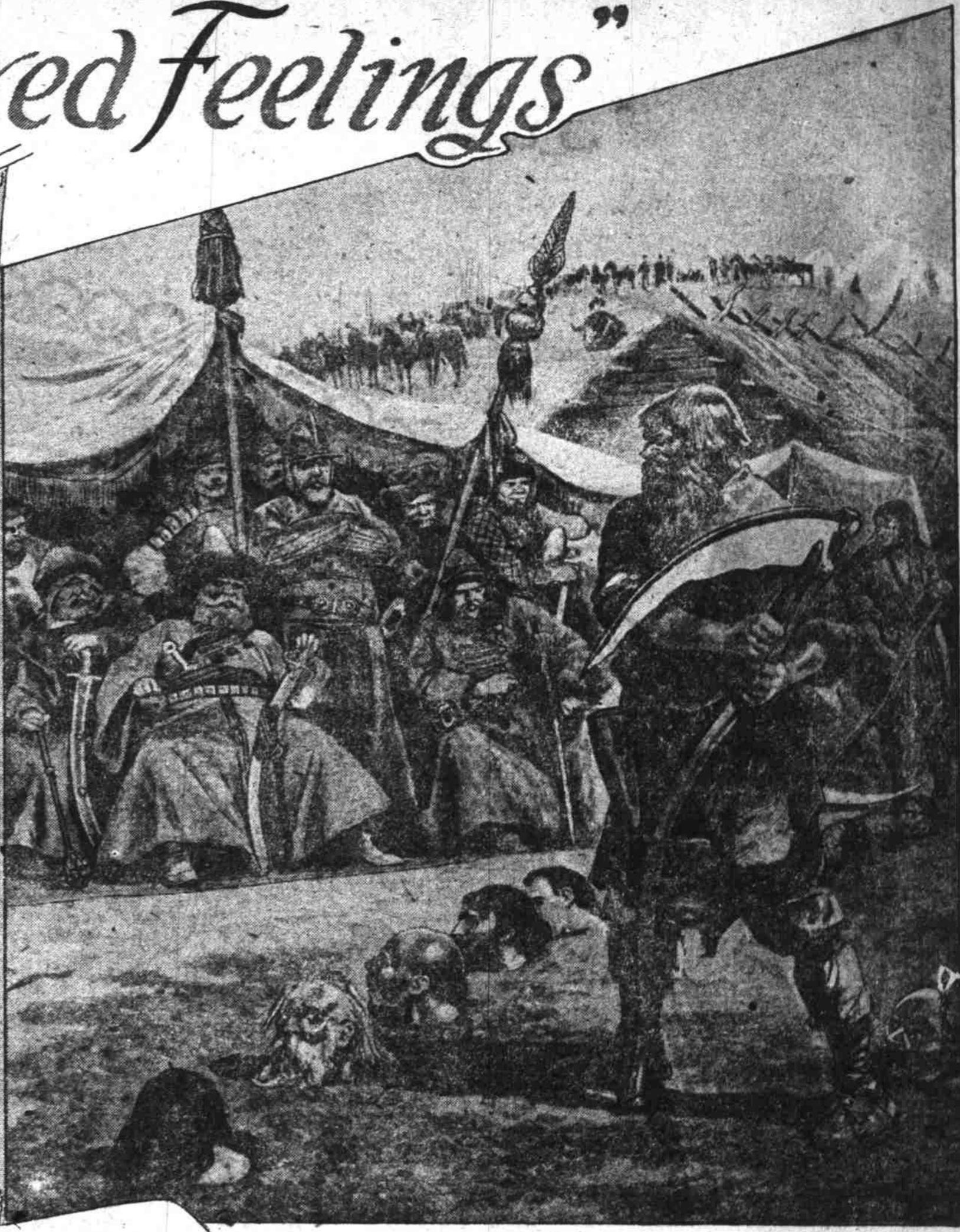
"The mood is a pleasant and unpleasant mixture, if I take the intermingling of the two as a mixture. I am never able to catch pleasant and unpleasant alongside of each other."

In another case the candy was just popped into the subject's mouth and some vinegar was dropped in her mouth. She reported:

"I detected in the tasting of the candy both pleasant and unpleasant, and I should say that pleasant predominates."

A charming melody was played to the subject and then a large onion was held to her nose. Her comment was:

"I tried my best to see what happened when the music was playing and I got the odor. I know the music was pleasant and I know the odor was unpleasant, but I don't know whether they were there at once."



This Startling Picture Shows the Old Russian Nobility Taking a Dreadful Revenge on Their Captured Polish Enemies. Such a Picture, in Combination with a Pleasant One, Failed to Arouse "Mixed Feelings."



In This Experiment the Patient's Skin Was Stroked with Velvet and Then Suddenly a Clothes-Pin Was Snapped on to Her Nose. The Sensations Immediately Changed from Pleasant to Unpleasant with No Mixed Sensation.

The professor played some discordant sounds on the mouth-organ and then slapped her face. The answer, which is said to show "multiple feelings," not "mixed feelings," was:

"That is apparently two-fold. There is a deep seated resentment and the unpleasantness of the sting. The two unpleasantnesses seemed to be there together."

A beautiful picture was exhibited to a girl, and while she was thoroughly absorbed in its beauty a piece of stale cheese was thrust under her nose. She said:

"There were touches of esthetic pleasure and there was the unpleasantness from the odor. The odor was strong, and I was still looking at the picture. When the distraction ceased, I had both simultaneously. The cheese was unpleasant and the picture was esthetically pleasant. I had both simultaneously for a moment."

The professor sandpapered a girl's nose and also held rose perfume to it. She reported:

"Both pleasant and unpleasant were there together. Occasionally each one would be there alone and the other disappeared, but in the intervals between they were there together."

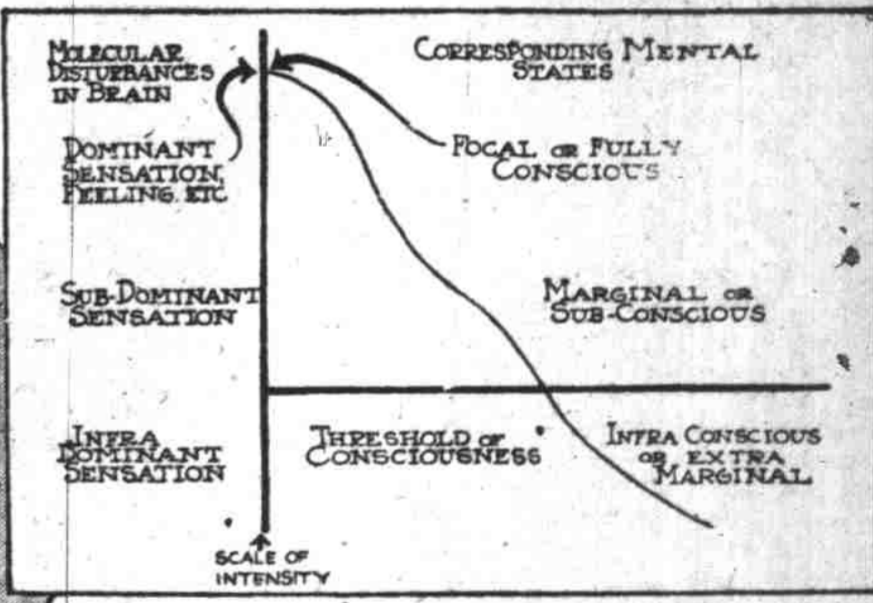


Chart Showing How the Predominating Sensation Prevails Over the Subordinate One.

The answers showed that an established mood may be interrupted by an affection of opposite significance.

The mood may be conceived as permanent, but the reports show that there is no coexistence of pleasant and unpleasant. When a piece of chocolate peppermint was fed to the subject and after that an unpleasant picture shown, a report was:

"Pleasant, of course, to start with. Then a hole in that pleasant until my attention went from the candy to the unpleasant picture."

The answer that there was a rapid alternation of feelings was given many times. For instance:

"The odor was a mixed feeling. I can't say that the effects were simultaneous; they may have been oscillatory."

"It seemed to get a rapid alternation between the pleasant and the unpleasant."

"I should say it was a very, very rapid fluctuation between pleasant and unpleasant. You get the succession, P-U-P-U. I can't say how many times."

If would, of course, not be easy for the untrained reader to draw conclusions from the 2,212 reports of the persons experimented upon, even if the whole number were laid before him. The learned Dr. Young arrived at these conclusions based on the reports:

1. Pleasantness and unpleasantness are not felt at the same time.
2. "Mixed feelings" involve a confusion of meaning. The meaning-error is favored by: (a) intellectualization; (b) unpleasant mood, as fatigue, illness, sleepiness, worry, etc.; (c) lack of practice and training in psychological report; (d) suggestion.

3. "Mixed feelings" are reported rarely and in sporadic groups throughout the course of the experiment and the single experimental hour. The subjects show marked individual differences in the tendency to report "mixed feelings." Five of the nine subjects report no unequivocal "mixed feelings"; one does not even report a doubtful case; another reports more than half of the total number. Of the reports of "mixed feelings" more than a third contain some expression of doubt and uncertainty.

4. There are four types of normal experience resembling "mixed feelings": (a) rapid alternations of pleasantness and unpleasantness, (b) doubt, (c) the brief interruption of an established mood which is conceived as permanent, and (d) the awareness of a pleasant object while one feels displeased, or the awareness of an unpleasant object while one feels pleased.

Other psychologists have tackled this interesting problem before, but never reached results as fully developed and sustained as these.

Professor Hayes, of Cornell, made an investigation based on 134 answers from a single subject. Pairs of simultaneous stimuli were used—a stimulus to pleasant and a stimulus to unpleasant. The stimuli were (1) taste solutions containing sugar and quinine in various percentages, and taste solutions (sugar and quinine), and sounds (chords and discords) from forks, (2) sounds (chords and discords), and odors (valerianic acid, carbon bisulphate, essence of peppermint, cinnamon).

The conclusion was that pleasant and unpleasant did not coexist.

Professor Alechisoff, of Germany, after an examination of twenty-nine answers, decided that "pleasant and unpleasant do not coexist in our consciousness, but only one after the other."