

Neuroethics Learning Collaborative

Brain enhancement II: Mood and Personality enhancement



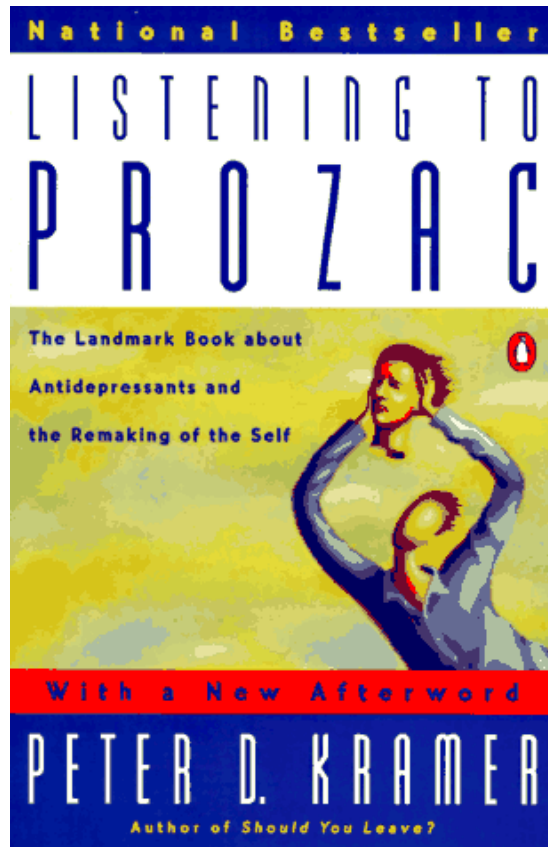
Center for Neuroscience & Society
UNIVERSITY of PENNSYLVANIA

Outline of lecture

- Definition: Revisiting therapy vs enhancement
- SSRIs – (how) do they work as enhancers?
- Beyond SSRIs: Other drugs that lift mood and brighten personality
- Ethical, legal and social issues



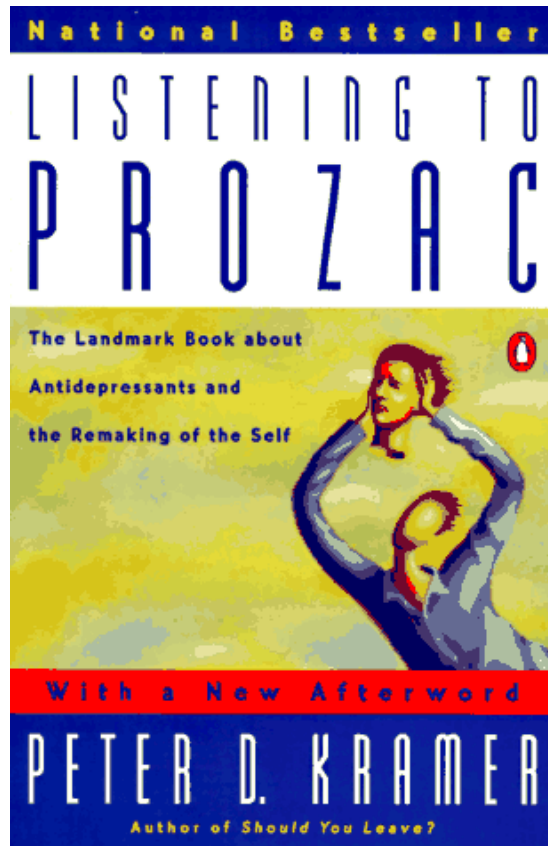
Listening to Prozac



“The self, and how it fares in a world where personality is understood as ‘biological’ and subject to biological influence, is a central issue for our time... Who are we, if we can be so altered by medication? And why should the medicated self on occasion feel more ‘true’ than the unmedicated?”



Listening to Prozac



Not promoting SSRI for mood/personality enhancement

‘Enhancement’? Pts not hunky dory

- fuzzy and moving line between therapy and enhancement

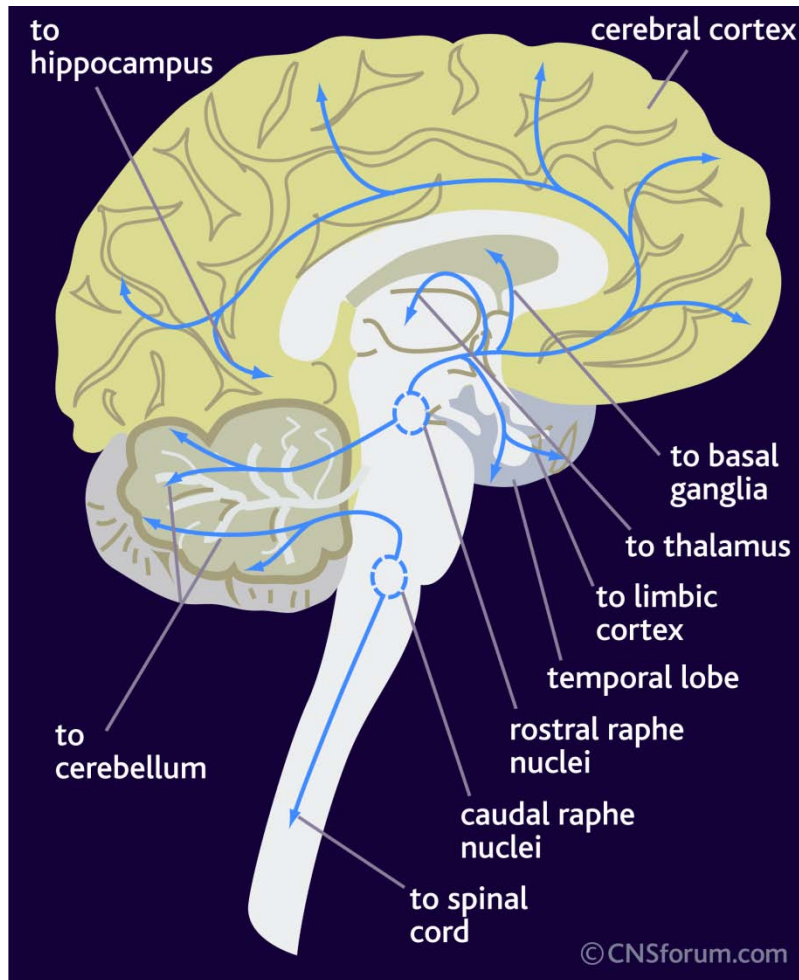


Outline of lecture

- Definition: Revisiting therapy vs enhancement
- **SSRIs – (how) do they work as enhancers?**
- Beyond SSRIs: Other drugs that lift mood and brighten personality
- Ethical, legal and social issues



SSRIs – (how) do they work as enhancers?

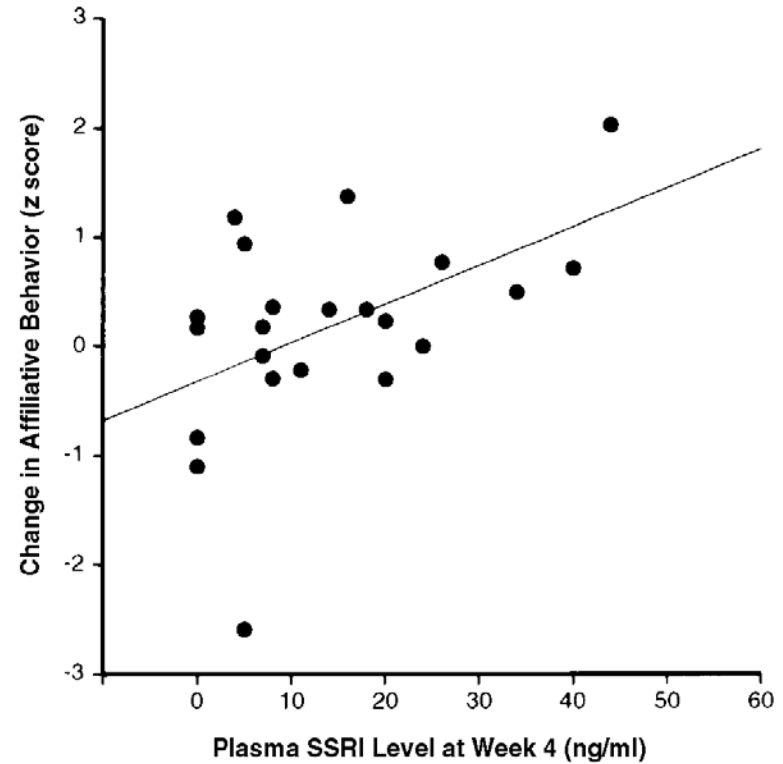
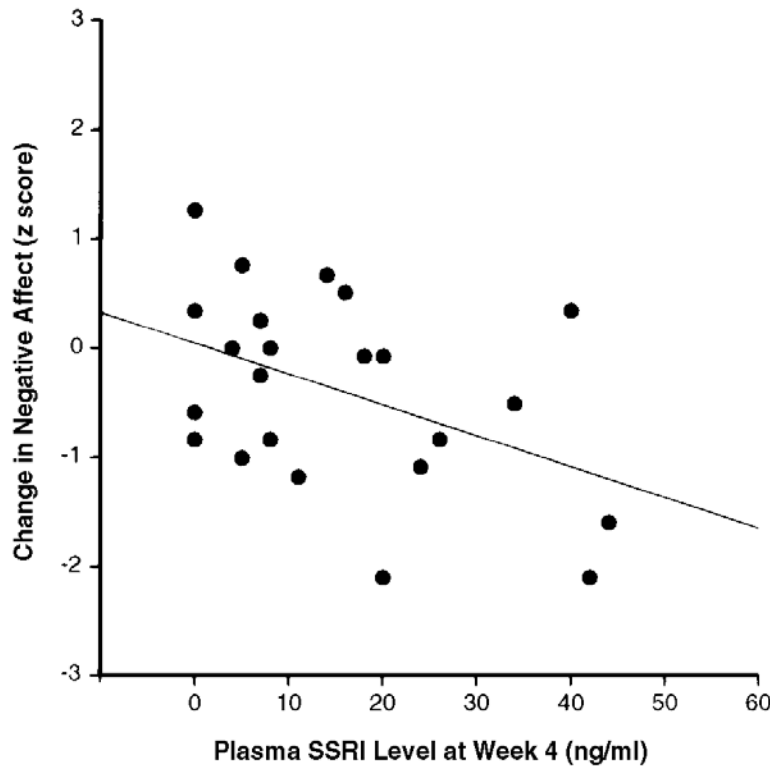


- Serotonin reuptake
- Mood effects downstream
- More effective for severe than mild depression
- But do affect mood and behavior in normal people



paroxetine in healthy normal Ss

Knutson et al (1998) Am J. of Psychiatry



Outline of lecture

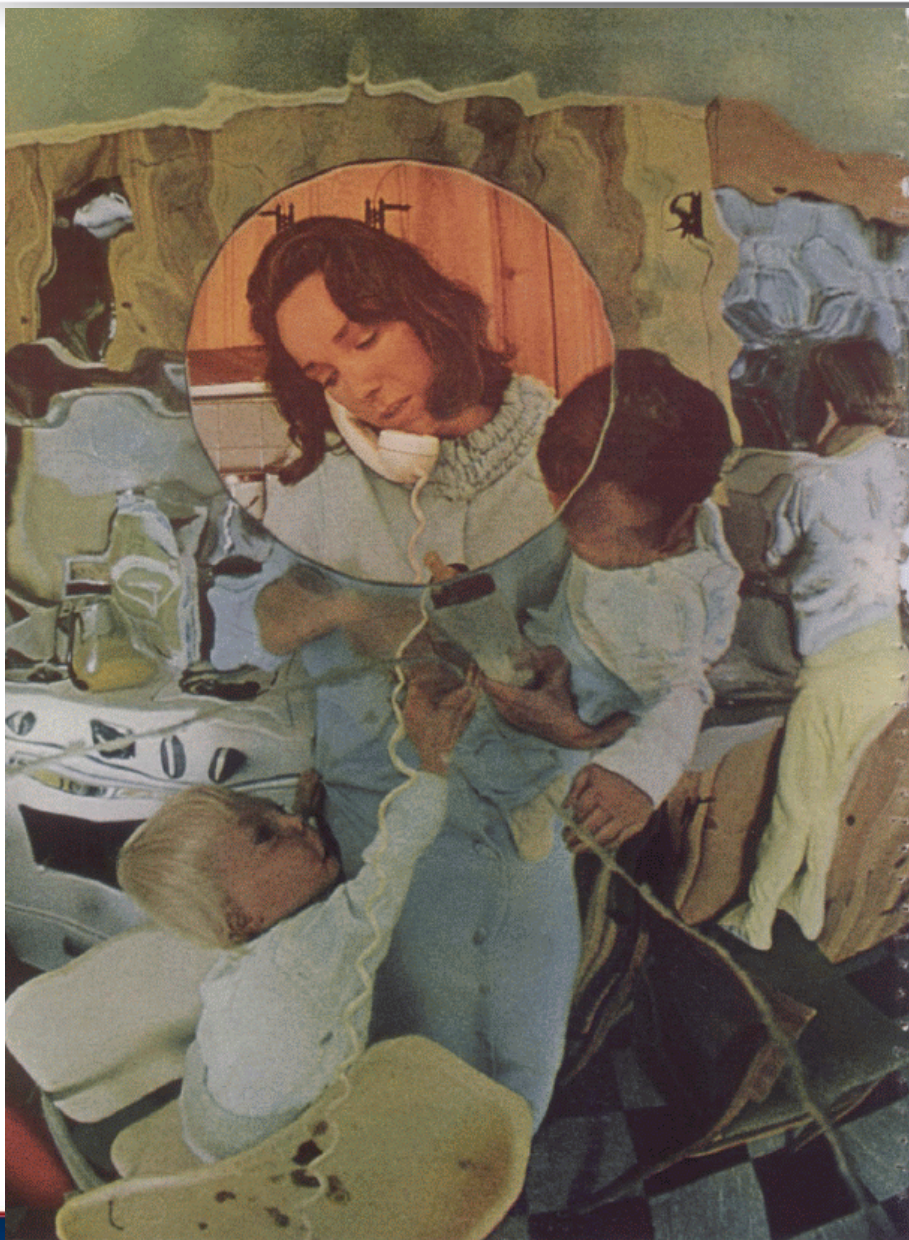
- Definition: Revisiting therapy vs enhancement
- SSRIs – (how) do they work as enhancers?
- **Beyond SSRIs: Other drugs that lift mood and brighten personality**
- Ethical, legal and social issues



Mother's little helpers

- 1950's-1960's
- Tranquilizers, amphetamine
- Treat ups and downs of life
- Doctors turn away in 70's because of addiction





Syndromes of the Sixties

The battered parent syndrome

She's the paradox of our age. Compared to her mother, she has more education, more usable income and more labor-saving devices. Yet she is physically and emotionally overworked, overwrought and—by the time you see her—probably overwhelmed.

What went wrong? Is parenthood something other than the rosy fulfillment pictured by the women's magazines? Is anxiety and tension fast becoming the occupational disease of the homemaker?

Some say it's unrealistic to educate a woman and then expect her to be content with the Cub Scouts as an intellectual outlet.

Or to grant that she is socially, politically and culturally equal, while continuing to demand domestic and biological subservience.

Or to expect her to shoulder the guilt burden of this child-centered age without unraveling around the emotional edges.

Or to compete with her husband's job for his time and involvement.

But whatever the cause, the consequences—*anxiety, tension, insomnia, functional disorders*—fill waiting rooms. Sometimes it helps to add 'Miltown' to her treatment—to help her relax both emotional *and* muscular tension. It's no substitute for a week in Bermuda, or for emotional readjustment. But it will often make the latter easier for her, as well as for the physician.

And 'Miltown' has been doing just that—for a dozen years now—with substantial success.

Indications: Effective in relief of anxiety and tension states; adjunctively when anxiety may be causative or disturbing factor. Fosters normal sleep through anti-anxiety and muscle-relaxant properties.

Contraindications: Previous allergic or idiosyncratic reactions to meprobamate. (Brief summary of prescribing information is continued on next page.)

Wallace Pharmaceuticals/Cranbury, N.J.



MILTOWN[®] (MEPROBAMATE)

when reassurance is not enough



Center for Neuroscience & Society
UNIVERSITY of PENNSYLVANIA



why is this woman tired?

She may be tired for either of two reasons:

- because she is physically overworked. If this is the case, you prescribe rest, because rest is the only cure for this kind of physical tiredness.
- because she is mentally "done in". Many of your patients—particularly housewives—are crushed under a load of dull, routine duties that leave them in a state of mental and emotional fatigue. For these patients, you may find 'Dexedrine' an ideal prescription. 'Dexedrine' will give them a feeling of energy and well-being, renewing their interest in life and living. Dexedrine* (dextro-amphetamine sulfate, S.K.F.) is available as tablets, elixir, and Spansule* capsules (sustained release capsules, S.K.F.) and is manufactured by Smith, Kline & French Laboratories, Philadelphia.

*T.M. Reg. U.S. Pat. Off. Patent Applied For.





Women dominate his universe psychic tension can rule his life

He doesn't understand the source of his psychic tension. But you do. He relates well to women with domineering traits. But not to men. Not even his own son.

Whenever psychic tension is a significant component in the clinical profile, consider the use of Valium (diazepam). On proper maintenance dosage, Valium can help reduce the psychoneurotic patient's tension—*anxiety, apprehension, agitation, alone or with depressive symptoms*—to more comfortable and adaptable levels. The most commonly reported side effects are drowsiness, fatigue and ataxia.

For your passive-dependent, tension-ridden patient dominated by women—and for countless other psychoneurotics—Valium may prove itself a helpful partner to your psychotherapeutic skills.

Please see last page of this advertisement for prescribing information.

for the relief of psychic tension
in psychoneurotic states
Valium®
(diazepam)
2-mg, 5-mg, 10-mg tablets
t.i.d. and h.s.



By relieving psychic tension, it can help:

- ease patients into therapy,
- lessen emotional stress reaction to crisis situations,
- improve communication,
- reduce tension-induced insomnia and fatigue,
- relieve stress-induced psychosomatic symptoms,
- support the patient between therapeutic sessions.

Before prescribing, please consult complete product information, a summary of which follows:

Indications: Tension and anxiety states; somatic complaints which are concomitants of emotional factors; psychoneurotic states manifested by tension, anxiety, apprehension, fatigue, depressive symptoms or agitation; acute agitation, tremor, delirium tremens and hallucinosis due to acute alcohol withdrawal; adjunctively in skeletal muscle spasm due to reflex spasm to local pathology, spasticity caused by upper motor neuron disorders, athetosis, stiff-man syndrome, convulsive disorders (not for sole therapy).

Contraindicated: Known hypersensitivity to the drug. Children under 6 months of age. Acute narrow angle glaucoma.

Warnings: Not of value in psychotic patients. Caution against hazardous occupations requiring complete mental alertness. When used adjunctively in convulsive disorders, possibility of increase in frequency and/or severity of grand mal seizures may require increased dosage of standard anticonvulsant medication; abrupt withdrawal may be associated with temporary increase in frequency and/or severity of seizures. Advise against

simultaneous ingestion of alcohol and other CNS depressants. Withdrawal symptoms have occurred following abrupt discontinuance. Keep addiction-prone individuals under careful surveillance because of their predisposition to habituation and dependence. In pregnancy, lactation or women of childbearing age, weigh potential benefit against possible hazard.

Precautions: If combined with other psychotropics or anticonvulsants, consider carefully pharmacology of agents employed. Usual precautions indicated in patients severely depressed, or with latent depression, or with suicidal tendencies. Observe usual precautions in impaired renal or hepatic function. Limit dosage to smallest effective amount in elderly and debilitated to preclude ataxia or oversedation.

Side Effects: Drowsiness, confusion, diplopia, hypotension, changes in libido, nausea, fatigue, depression, dysarthria, jaundice, skin rash, ataxia, constipation, headache, incontinence, changes in salivation, slurred speech, tremor, vertigo, urinary retention, blurred vision. Paradoxical reactions such as acute hyperexcited states, anxiety, hallucinations, increased muscle spasticity, insomnia, rage, sleep

disturbances, stimulation, have been reported; should these occur, discontinue drug. Isolated reports of neutropenia, jaundice; periodic blood counts and liver function tests advisable during long-term therapy.

Dosage: Individualize for maximum beneficial effect. *Adults:* Tension, anxiety and psychoneurotic states, 2 to 10 mg b.i.d. to q.i.d.; alcoholism, 10 mg t.i.d. or q.i.d. in first 24 hours, then 5 mg t.i.d. or q.i.d. as needed; adjunctively in skeletal muscle spasm, 2 to 10 mg t.i.d. or q.i.d.; adjunctively in convulsive disorders, 2 to 10 mg b.i.d. to q.i.d. Geriatric or debilitated patients: 2 to 2½ mg, 1 or 2 times daily initially, increasing as needed and tolerated. (See Precautions.) *Children:* 1 to 2½ mg t.i.d. or q.i.d. initially, increasing as needed and tolerated (not for use under 6 months).

Supplied: Valium® (diazepam) Tablets, 2 mg, 5 mg, and 10 mg; bottles of 100 and 500. All strengths also available in "Tel-E-Dose"™ packages of 1000.



Outline of lecture

- Definition: Revisiting therapy vs enhancement
- SSRIs – (how) do they work as enhancers?
- Beyond SSRIs: Other drugs that lift mood and brighten personality
- **Ethical, legal and social issues**



Ethical, legal and social issues

Safety, Fairness and Freedom, as with CEs
Personhood, Identity and Authenticity

Ethical, legal and social issues

Safety, Fairness and Freedom, as with CEs

Personhood, Identity and Authenticity

“Resistance is futile”

