

EXTROPY

VACCINE

FOR

FUTURE

SHOCK



NO. 3

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Illustrations:

Front cover: "Yin Yang Kiss," by Tom W. Bell, for D.
Back cover: "Love L'oeuf," by Tom W. Bell, for D.

EDITORIAL

Love, sex, and drugs? At first glance, these topics might not seem to have a lot to do with this magazine's namesake: extropy. Actually, though, each of these subjects opens a new front in our battle against entropy.

You could very well call this issue of Extropy "The Love Issue," since three of its articles address the subject. Why this emphasis? Well, for one thing, love tells us a lot about the interactions of those most complex of information processing systems: people. Our interest in love isn't purely academic, however. Unlike some of our more technical subjects, love interests everyone. And well it should; it's not only fun to talk about love, it's *important*. Extroplians battle entropy because they value life, and love makes life worth living.

In the closely related article, titled "Sexual Information," I offer a look at the whys and hows of the sexual exchange of information. I set out to answer the question, "Why is sex so *great*?" and end up discovering that sex can serve as one of our most powerful means of advancing extropy. Max

O'Connor takes a serious look at another somewhat taboo subject in his article "Psychedelics and Mind Expansion," where he reviews some of the effects and uses of LSD-25. Max is a brave man: in an age when the police state threatens to crush all opposition in its "War on (People Who Choose to Use) Drugs," he fearlessly admits and advocates the use of psychoreactive chemicals.

In addition to these pieces on love, sex, and drugs, we now open Extropy with an expanded "Forum" section, where you readers can join us in a dialogue about extropy. We hope that you'll continue to offer us input; as the name implies, we intend "Forum" to present a meeting of minds.

Coming up in the next few issues: an article on the Singularity, by Mark E. Potts; something about neural nets, by Simon Levy; "In Praise of Satan," "Death: the Ultimate Bummer," and "Deep Anarchy" by Max; "Total Anarchy," and "The Aesthetics of Information Transmission," by Tom; and articles on the cold fusion breakthrough, advances in micro- and nanotechnology, mind machines, space colonization, cyberpunk science fiction, new theories of personal identity and survival, currently available means of boosting your memory and learning abilities, and new perspectives on handling friendships and romantic relationships, with alternatives to conventional marriage.

Please indulge your urges to send us material on any extroplan topic. We welcome articles on the following subjects, among others: artificial intelligence; cognitive science and neuroscience advances and possibilities; intelligence increase technologies; life extension, cryonics; biostasis, and immortality in general; nanotechnology; hypermedia; spontaneous orders; space colonization; libertarian economics and politics; reviews of science fiction; intelligent use of psychochemicals; extroplan self-improvement psychology; mind-fucking and weirdness; extropic moral and amoral theories; exciting developments in science and technology; memetics; and aesthetics.

Those of you who pay attention to such things will note that Max and I have adopted new titles. Previously we were both "Co-editors." Now I've become Extropy's Editor, while Max has become its Assistant Editor. On the other hand, in the campus organization Trojans for Radical Individualism that Max and I used to jointly coordinate, he has assumed the role of Primary Coordinator, while I've been relegated to mere Coordinator. This shift of responsibilities allows us to concentrate on our specialties while still permitting us to pool out talents.

Last, but far from least, thanks to Claustrophobia for all its help.

Tom W. Bell

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FORUM

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Dear Extropy,

I very much enjoyed your last issue. Your idea that perhaps an acceptable system of ethics may be derivable from the single axiom that information should be preserved is an interesting one [see "Wisdomism" by Tom W. Bell, Extropy No.2]. Certainly, general respect for life would follow from the proposition that information preservation is Good, as also would a general ethical prejudice against any act which is (on the whole) destructive.

Of course, there are bound to be problems with defining "information," and in such an ethical system these problems might be expected to crop up in ethical conflicts whenever loss of one kind of information is balanced against gain of another kind. We might ask, as an example, how much information is destroyed when a laboratory mouse is killed. It can be argued that an inbred lab mouse does not really represent much extra information over and above its genetic information (which remains preserved in the strain), for the simple reason that mice are not very bright and therefore individual animals do not acquire much unique knowledge in a lifetime. Thus, perhaps one could justify destroying individual mice to gain some new scientific information -- but could not in the same way justify destroying individual humans. On the other hand, perhaps we fool ourselves. When we get right down to it, there isn't really any way to know just how much unique information is stored in the brain of a given mouse, for we are after all dealing with a structure that is more complicated than the biggest computer. One must ask therefore if a bit of information that we can "get at" is to be seen as worth more than a lot of information that we can't, and if a

little information that we are interested in is worth more than a lot of information that we aren't.

And what happens when we up the ante? Consider the loss of information when we kill not an individual animal, but an entire species of animals. With species extinction, have we finally reached a point where the worth of this loss of genetic information is comparable to the information in a few individual humans? These are not idle philosophical speculations, for such trade-off present themselves whenever we decide whether or not to cut down massive amounts of rain-forest to keep a certain number of humans from starvation, and so on. It certainly appears that an ethical system based on different premises will not immediately solve all of our moral dilemmas.

On the more general subject, it seems to me that part of the attraction of the ideal of an ethics based on "information creation and preservation" comes from a strong human genetic propensity for "information respect." I believe this propensity to be one of the defining characteristics of our species, though one seldom discussed in exactly these terms. That such an "information = pleasure" brain system historically must have had great survival value seems likely, and there is little doubt that such a system also operates in most people today. Consider, for instance, the source of the entertainment characteristics in the games "Jeopardy" and "Trivial Pursuit." And consider that most major human hobbies involve combinations of artistic creation, collection, or restoration -- all of which are information creation or preservation activities. Note that these same proclivities drive much of technology and science. Scientific research is much like art, and anyone who has ever both written a scientific review paper and participated in the collection and restoration of antiques, will testify to the fact that the satisfactions in both cases are of exactly the same type. I personally believe that the specific "information preservation = pleasure" component is particularly active in the brains of people who become historians, researchers, collectors, cryonicists, and "extroplans." One might fairly characterize Venturism too as the "Church of the Information Hound."

The ancients knew this reverence for information, of course. The Stoic philosophers spoke with awe of the *logoi spermatikoi*, the semi-divine seeds of "creative force" (*Logos*), which served as centers to organize information and order out of the cosmic chaos. Today we know these negative entropy centers better in terms of Prigogines's "dissipative structures" -- structures of increasing complexity and order which arise spontaneously wherever a stream of energy flowing from hot to cold runs through a thermodynamically open system. Life, it appears, is a class of dissipative structure -- and so are we. Thus in the universe whenever we find the great onrushing current of heat flow and increasing entropy driving a local entropy decrease in an open system (like here on Earth), that process is what we especially revere. Robert Frost spoke of something of the feeling in the poem "West-Running Brook." The title refers to the fact that in the Eastern U.S., brooks usually run East to the ocean -- but the New England brook in the poem makes a short West-running jog on its way to the sea:

"... The universal cataract of death
 That spends to nothingness -- and unresisted
 Save by some strange resistance in itself,
 Not just a swerving, but a throwing back,
 As if regret were in it and were sacred.
 It has this throwing backward on itself
 So that the fall of most of it is always
 Raising a little, sending up a little.
 Our life runs down in sending up the clock.
 The brook runs down in sending up our life.
 The sun runs down in sending up the brook.
 And there is something sending up the sun.
 It is this backward motion toward the source,
 Against the stream, that most we see ourselves in,
 The tribute of the current to the source.
 It is from this in nature we are from.
 It is most us. . . ."

Steve Harris, M.D.
 U.C.L.A. Medical Center

Dear Steve,

As always, you've raised interesting and relevant points. I'm amazed that you've postulated an "information = pleasure" response in humans; you've perfectly summarized the main point of this issue's article "Sexual Information." (I hope you'll take the time to read it, anyway, though!)

You've also noted, quite aptly, that Wisdomism doesn't offer immediate answers to all moral problems. There are two points to remember, though. First of all, Wisdomism doesn't ask that we maximize the total amount of information in the universe at large. Instead, it defines the Good act for an agent as the act that maximizes *that agent's* wisdom. This leads to a sort of enlightened self-interest, where we act not to advance our own bodies and brains, but rather the patterns of information therein. So to solve the moral problems you pose about the fates of lab mice or entire species of animals, we need only determine what would be in the interest of *our* wisdom -- not theirs (except to the extent that we share their information constructs, and therefore identities). This may sound heartless, but hey, it's a meme-eat-meme world out there!

Secondly, while in practice it may be difficult to determine exactly which act will maximize your wisdom, in theory there *is* a correct answer. Wisdomism tells us that "total wisdom = knowledge X intelligence X duration X probability." We may find it difficult to fill in the variables of this equation (at present), however, so we must trust that the natural selection has given us pretty successful memes, and that we can therefore generally trust our gut intuitions.

By the way, these same forces of memetic evolution assure that if each

of us seeks only to maximize our own wisdom, the total amount of wisdom in the universe will increase in turn, as the most memetically successful information constructs win out. So even if the grander goal of increasing wisdom universally appeals to you, keep in mind that you'll probably serve it best by serving yourself.

Tom W. Bell

Dear Extropy,

With regard to the Tree of Knowledge of Good and Evil [see "Bad Thoughts" by T.W.B., Extropy No.2]: looked at a different way, the story is not as bad as you make it out to be. After all (as in Milton's retelling of the story in Paradise Lost), Adam and Eve were happy in the Garden because they had no notion of good and evil. So, for instance (this from Milton), they had sex without any guilt or shame. My point is that a lot of "anti-Christian" thinkers (e.g., Nietzsche) have come up with similar ideas as goals (see his Beyond Good and Evil, which I admit I haven't read). I agree that the Biblical story does make Adam and Eve ignorant children, God their omniscient father, and knowledge an undesirable thing. But it is specifically knowledge of GOOD and EVIL that causes suffering, not knowledge of, say, linear algebra, which is neither good nor evil (you might take issue with this last point). Of course, traditional Christianity has turned the issue into the Doctrine of Original Sin, but there are other ways of looking at the story.

Simon Levy,
University of Connecticut

Dear Extropy,

Thank you for the Jan. 1989 issue of Extropy, and for publishing my letter. New mutations of the Rapture meme are already in the works. (See the enclosed photocopy from the Jan. 1989 issue of Harper's. For some reason, Tulsa seems to attract Christian end-of-the-world predictors.)

I'm willing to make a prediction of my own. In 1992 the twelve member nations of the European Economic Community (EEC) will throw down their trade barriers to create a unified enterprise zone. The symbol for this new arrangement is twelve stars in a circle. I PREDICT that some Christian writer or broadcaster (perhaps a famous one like Hal Lindsey) will latch onto that as a fulfillment of Revelation 12:1 -- "And there appeared a great wonder in heaven; a woman clothed in the sun, and the moon under her feet, and upon her head a crown of *twelve stars*." (Funny, but when the EEC had only ten members, it was said to be the kingdom of the "beast from the sea" in Revelation 13.)

You heard it here first.

A recent Extroplan book of note is from your fellow Angeleno FM-2030 (a.k.a. F.M. Esfandiary), a trade paperback for \$6.95 titled Are You A Transhuman? (Warner Books, 1989). It deserves a review in Extropy. [Any

takers? You write it and we'll print it! -- Ed.]

An older Extropian book which failed somehow to become part of the "received wisdom" is Looking Forward (A.S. Barnes, 1969), by Kenneth S. Keyes, Jr. and Jacque Fresco. Its view of 21st century life comes from the Technocracy, Inc. tradition, but in many ways it remains fresh and timely. It may be hard to find, but it's worth reading.

I would like to raise the question of whether the writers for Star Trek: The Next Generation are operating on a hidden agenda to discredit Extropian ideas. In addition to "The Neutral Zone" episode panned by Mr. O'Connor in Cryonics, July 1988, the recent episode "The Schizoid Man" denigrated both life-extension and the concept of "uploading" the human mind into robots. There has also been an implied anti-intellectualism throughout both the original and the new Star Trek series. In numerous episodes some great scholar whose books are "required reading at the Academy" turns out to have become evil for the purposes of the story. I concede that smart villains are more intriguing than stupid ones, but why must so many of them have to be Extropians-gone-bad?

Mark E. Potts
Tulsa, OK

[The Harper's piece, which we haven't the room to reproduce, quotes wacky predictions from Robert W. Fald's Gorbachev! Has the Real Antichrist Come? -- Ed.]

Dear Mark,

It's worrying how TV shows like Star Trek (and the newer Dreck) can subtly send out their entropic and statist memes to infect innocent people with self-destructive thoughts. Fortunately, ST spreads the idea that space travel is coming and this will prepare and encourage people for an inevitable part of human destiny. Even this could have been far better done though; the show represents a future in space run by the "State". Alternatively, they could have concentrated on extropic individuals like scientists and entrepreneurs, rather than the Federation. However, probably such a change would not do as well with the public as the way they actually did it.

Why didn't the entropism get to me? I watched ST avidly from an early age. My enthusiasm for space was enormous, my statism very low. Perhaps I would have broken free of those mental straitjackets earlier if more of my science fiction characters were like those of the more recent writers like L. Neil Smith, Vernon Vinge, Jim Hogan, etc.

While on the subject of SF, here's a great piece of news. In March of this year, Gregory Benford, writer of high quality mega-sellers, announced to the membership of the Alcor Foundation that he had signed a contract to write a novel sympathetic to cryonics. Interest in cryonics definitely continues to grow among SF writers.

Max O'Connor

LOVE?LOVE!LOVE?LOVE!LOVE?LOVE!LOVE?LO

Want to fall in love? Just sign on the dotted line!

LOVE AS A CONTRACTUAL RELATION

by Tom W. Bell

The hot topic of late among my circle of friends has been a hot topic indeed: love! What is it? Rob Michels, a recovering nihilist, says that love doesn't exist, that it is an illusion created by culture and self-ignorance. He's taking a courageous stand, but he takes it alone; no one wants a world without love. Max O'Connor, borrowing from Ayn Rand, claims that love is a response to shared values. This strikes me as a bit too abstract to serve as a guide to romance, however. And as it stands, Max's definition is far too broad; it would mean that we love everyone who roots for our favorite football team. But you can decide for yourself whether or not you agree with Rob or Max -- they have their own articles about love elsewhere in this issue of Extropy. Agree or not, you have to credit them for at least *trying* to give an account for love. Most people take the easy way out. They proclaim that love is indefinable, and like meteorologists powerless before a hurricane they satisfy themselves with lurid descriptions of its rampages. Come now, let's not give up so easily! Love is far too important to sacrifice to intellectual laziness.

What Love Is

In a long conversations with Gea Overbeck, one of my brightest students, I came up with the idea that love is not a condition, but a *relation*. Love holds only between people. It's not just an arbitrary relation, either. After all, suppose that you're waiting at a bus stop next to an I.R.S. flunky. He stands to the left relative to you, and you stand to the right relative to him. You therefore share *some sort of relation* with him. Are you in love with the thug? I think not! Love is a special kind of relation. What kind of relation? Well, that depends on the people involved. Different people like different kinds of love, and will choose the terms of their relationships as suits them. People in love relate only in certain ways: the ways in which they

choose to love each other. Love, then, could be called a contractual relation between mutually consenting adults.

Yowl I can hear the objections already. Nothing gets people riled up like a discussion about love. Give me a just minute to lay out some of the consequences of this definition of love, though. I'll get to the objections later. Promise.

We see, first of all, that love is more than just an extra-strong sort of liking. Given the definition of love set forth here, no one really "loves" ice cream, baseball, the color red, etc., idiomatic expressions to the contrary. Why not? Because you can't share a contractual relation with an inanimate object.

This definition of love likewise leads us to re-interpret the popular phrase "I'm in love." As it stands, it sounds rather incomplete. We have to take it to mean "I'm in love *with* (someone)," or "We're in love *with* each other." Remember, love is a contractual relation *between* people. "It takes two to tango," never rang more true.

Understanding love as a contractual relation also makes claims like "I love Beth but she doesn't even know I exist," or "I still love Curt, even though we've broken up," sound a bit amiss. If Beth *really* doesn't know that you exist, she certainly hasn't consented to your love! And if you and Curt have *really* broken up, you share no more consensual relations at all. (Things aren't usually this clear cut, of course; romance tends to get rather messy. The Beth's of the world generally know of at least the existence of their suitors, if not their intentions, and Curts often drop by to say "Hi!" now and then. Such real-world relations might or might not be too meagre to support love.)

This definition of love doesn't, however, stop anyone from saying things like "I thought Sue and I were in love - until I found out what she's *really* like." We often fail to fully understand those we love. But that shouldn't lead us to say, after discovering our ignorance, that we weren't in love at all. We can fall in love with our ideal projections of others. We can create the objects of our affections, and insofar as we generate such creations subconsciously, we can consider them separate moral agents, agents we can enter into contractual relations with, agents we can love. At an extreme, we can even love people who don't exist at all! Ever had dreams like that?

What Love Isn't

Some people may object that my definition of love is too loose. It seems to call any contractual relation between consenting adults "love". When you prepay for leaded at a gas station, you and the station's owner enter into a mutually consenting contractual relationship. You promise him legal tender and he promises you gasoline. So are you and the station owner in love? That doesn't sound very romantic!

O.K., so my definition of love needs some tightening. We can start by determining just what people exchange in loving relationships. In general, they exchange interpersonal goods, rather than material ones (though they may exchange gifts having symbolic value). Different sorts of love entail

different sorts of exchanges. Romantic lovers exchange courtship rights (e.g. "I won't date anyone else if you won't"). Sexual lovers exchange sexual services. Friends exchange psychological support and camaraderie. Family members exchange guidance for obedience, or *vice versa*. These descriptions aren't exhaustive, of course, but they serve to delimit the sorts of things that people in love exchange.

"But," other people object, "you make love sound ~~as~~ cut-and-dried! You can't describe love in words; love is just a *feeling*." People who make such claims face a contradiction, however. A good feeling is not a bad feeling, nor is a bad feeling a good one. Good and bad are mutually exclusive terms. Yet sometimes people call love "good," and sometimes they call it "bad." So if love were a feeling, it would have to be both good *and* bad -- but that's impossible. Love ~~is~~ not a good feeling, ~~nor~~ is love ~~a~~ bad feeling. Love is not any sort of feeling at all.

That's not to say that feelings don't play an important role in loving relations. The drive to feel good motivates our seeking love in the first place. But we must not confuse the end with the means. We're all free marketeers, here, aren't we? Good! Allow me, then, to use ~~an~~ economic analogy: feelings are to love relations as profits are to business relations. People enter into business contracts because they want to make money. The same holds true of love. People enter into to love relations because they want to make themselves feel good. Sometimes they "turn a profit" in love, and end up feeling good. Other times they lose out, and end up growling, "love sucks." Love can feel good, or love can feel bad, but never is love itself "just a feeling."

Still others object that most people fall in love without ever agreeing to any specific "contractual relations" -- love just sort of *happens*. I admit that few people get explicit about the terms of their love, but if you look hard enough you'll discover that their love is guided by *implicit* contracts. Lovers usually borrow roles from their society, thereby taking on ready-made contractual relations. They might adopt the mantles of "boyfriend" and "girlfriend," for example, and from then on just act as they assume boyfriends and girlfriends should. I'm not saying that this is a good idea, however! In fact, one of the main reasons that I'm arguing for love ~~as~~ a contractual relation is to convince people to make the terms of their love clear. Failing to deal explicitly with the contractual terms of your love opens you up to all sorts of potential troubles. Ever heard this sort of line: "But you never told me that you didn't want me to go out with other guys! How was I supposed to know?" Maybe it's true that most people don't treat love ~~as~~ a contractual relation. That doesn't show that I'm wrong about love, however; it shows that *they* are.

'Gettin' Good Lovin'

By now you're probably wondering, "All of this theorizing about love is well and fine, but how far does ~~it~~ get you in the rough-and-tumble world of romance?" That's something I've wondered about, too. Like most folks, I've fallen in and out of romantic love, and I've suffered the usual batch of joys

and pains. It's a thrilling ride, but it can sure get rough. Sometimes you get going on a long downhill slide and discover that the only brakes are heartbreaks. Well, I'd had enough of love getting the best of me. It seemed like every time I'd fall in love I'd land on my head. I decided it was time to take control of my heart. So I put my theory of love to the test by following these three guidelines:

1) ■ explicit

Let your love-partner know what you expect from your relationship, and make it clear what you offer in return. I even suggest putting it into writing. This can be very difficult; you have to define slippery terms (my love and I have defined "sexual activity" as "intentional stimulation of the external sexual organs") and specify what should happen if one of the parties wants out. (Our contract has no sanctions for violating its terms; heartbreak is punishment enough. We did, however, agree to warn each other *beforehand* if we decided to violate the terms of the contract.) Tough as it is, though, it's well worth it to make the terms of your love clear. Nothing wrecks a relationship faster than mis-communication.

2) Don't make promises you can't keep

"I'll love you forever," sounds great, but can you really guarantee that you'll never violate the terms of your love's contractual relation? If you can't, then don't. Likewise, "I promise to love you," has its problems. Can you promise *now* to consent to a contractual relation *later*? If you obligate yourself to agree to the terms of a now-unspecified contract, then you've compromised your freedom to consent to that contract. But love is a consensual relation. You can't be forced to love someone. (There's more to be said about this, to be sure; it's a form of the old paradox posed by the question, "If one is free, is one free to sell oneself into slavery?" We'll skip the subtleties, though.) Be realistic about the terms of your love, or else you'll find yourself forced to violate them.

3) Nurture trust and respect

Trust and respect indicate the strength of a love relation; the more you and your loved ones trust and respect each other, the better. Trusting those you love means that you believe they will honor the terms of your love contract. Respecting them shows that you intend to honor the contract's terms. Love is a two-way street, and commitment runs in both directions. Trust measures others' commitment to you. Respect measures your commitment to them. Trust and respect are really just different perspectives on the same thing: the strength of one's love.

respect --- your intent to honor the contract ---> trust

You

Others

trust <--- others' intent to honor the contract--- respect

Note that you ~~can~~ trust someone without loving them, and vice versa. If you know that they'll slavishly cater to your every wish, you'll certainly trust them to honor the terms of your love -- they wouldn't dare to violate them! But you probably won't respect such a lover very much. Why should you, if their compliance is guaranteed? Conversely, you could find yourself in a similar situation, respecting someone who you know you can't trust a whit. Such one-sided loves aren't very strong. Either the weaker party wises up and gets out, or the stronger party wanders off in search of more challenging prey.

The strongest and most-rewarding love relations mix equal portions of trust and respect. How can you nurture such strength? Well, to reiterate, be explicit -- that makes commitment easy to recognize. And don't make promises you can't keep -- doing so makes you look like someone who can't be trusted. Most importantly, though, *be patient*. Trust and respect take a long time to develop. They cannot be given outright; they have to be carefully nurtured for a long, long while. It's fun work, though, and a good love is well worth the wait.

So has following these rules of thumb improved my love life? I think so. My heart still gets the best of me sometimes, but at least my lover doesn't. Maybe I'm just lucky to have fallen in love with such a wonderful woman, but I think that treating love as a contractual relation has made our love stronger, happier, and more rewarding.

I can't claim that describing love as a contractual relation accounts for all of its many mysteries, nor can I promise that my theory of love will solve each and every problem that lovers face. But ~~no~~ theory is perfect. We favor a theory simply if it explains more phenomena than contending theories, and if it serves as a better guide to our behavior. Now, while the theory that love is a contractual relation between consenting adults may be imperfect, it dispels more of love's mysteries than blind cynicism, detached metaphysics, or intellectual laziness. And though my experiments are far from complete, it appears that this theory of love works well in practice, too. Don't take my word for it, though. Fall in love yourself and try out the theory of love you favor. Whatever you do, though, give love the serious consideration it deserves. Love is far too important to ignore, far too powerful to resist, and far too wonderful to live without.

(I would like to thank Raquel Castellanos, Debbie Leffler, Donna Matias, Rob Michels, Paula Morgan, Max O'Connor, Gea Overbeck, and Jim Stramel, for their help with this essay.)

LOVE?LOVE!LOVE?LOVE!LOVE?LOVE!LOVE?LO

LOVE

by Max T. O'Connor

It is essential to any adequate conception of love that one take the interests of the loved one as one's own. What does this mean? Every individual has an ever-changing set of desires, with some of those desires or goals being clearly more important than others. To say that they are more important may mean either that they are stronger or that they are more central to one's personality and identity than other desires.

Love, as distinguished from short-lived infatuation, requires a sharing of at least some important desires. Probably for love to endure the importance must be due to the centrality of the desires rather than their strength (I explain this below). Aristotle said that a friend is "another self," and by this he meant that a true friend is someone with whom you share some important - and central - interests or perspectives. People with whom you can share an activity may be friends on a lower level; they are people you enjoy being with, but they are not "true friends" or soul-mates (and I don't mean to imply anything non-physical here; perhaps a better term, though odd-sounding, would be "value-mates" or "perspective-mates"). Infatuation is the result of an attraction, usually sudden and short-lived (though possibly neither of these), which is based on very limited factors. Common factors are sexual desire, liking for the style or flair of the other, or simply a sympathetic response to the fact that the other person is showing interest in oneself. Somehow we can't but help like people more when they like us - we think that it reflects on their good taste and judgement (unless we seriously lack self-esteem)!

True love, as distinct from infatuation, must involve the sharing of important interests. By "interests" I mean to include desires, values, goals, and perspectives on reality. For love to flourish it is no doubt more important that the shared interests be central rather than simply strong. The degree to which an interest is central to a personality is the degree to which it is a natural outgrowth and expression of the personality. If I am to truly love another then I must love them for the person they are. I cannot do this without understanding them; I must be able to realize what their central interests are and be able to respond to them because I share them. For this to be possible it is obviously necessary that the potential objects of my love make themselves psychologically visible to me. If someone hides herself behind a facade, behind a false personality, then I cannot know her and so cannot love her for what she is. This is why the advice "just be yourself" when you are looking for love is wise - if you pretend to be what you are not then you may temporarily fool the other person into loving you for

rather, the false you), but this will soon lead to disillusionment and a rapid melting away of the emotional response.

To love a person then, you must both grasp their identity as an individual, you must understand what values, goals and perspectives make them what they are, and you must *share* these values, goals and perspectives. This is why essential to true love is the inescapable desire to take the interests of the loved one as one's own interests. It is possible to *force* oneself to act in this same way for people with whom you have little or nothing in common, but this cannot happen spontaneously or easily. It's difficult to see why anyone would do something crazy like this - unless they have been taken over by some personality-crushing moral doctrine like that of altruism or utilitarianism. This is entirely different from the kind of 'sacrifice' one makes for a loved one with whom one shares central interests. This is not really sacrifice at all since, as Ayn Rand pointed out (in *The Virtue of Selfishness*), a sacrifice is the surrender of a higher value for a lower value. This kind of unhealthy and self-destructive behavior can only happen under the influence of memes spread by others for *their* benefit.

Giving up certain things for the sake of the interests of a loved one with whom one shares important interests is not a sacrifice. Indeed it is just another means of self-assertion, of self-empowerment, of self-expression. In the traditional ~~sense~~ of 'individual,' love breaks down the barriers between the individuals who are in love. However this should not be ~~seen~~ as in any way bad, or to be avoided by the individualist or the egoist, since such fear would be based on a mistaken view of individuality. The traditional conception of the individual is insupportable. We are accustomed to conceiving of an individual in terms of an individual consciousness within an individual body. Anything which harms or limits that entity, the entity contained entirely within the skin, is self-destructive or self-limiting. The traditional view of the identity of the individual is doomed to perish at the hands of a new information-theoretic view of identity. This perspective on identity has been around for some time. The first real development of the idea that I am aware of is in Robert Ettinger's cryonics classic of 1964, *The Prospect of Immortality*, and the idea burst irresistibly upon the academic philosophical scene with the appearance of Derek Parfit's brilliant book *Reasons and Persons*. I will explore this theory in a forthcoming issue of Extropy.

On the information view of identity it is a mistake to limit a person's identity to that which exists inside a single human body or brain. It's true that, in our current world, this is generally correct since we are trapped within our single brains. But immortalists and other uploading enthusiasts have realized for years that this will not always be the case. We have good reason to expect the eventual possibility of duplicating our consciousness in a suitable computer software instantiation. Once that is possible we can make copies of ourselves and transfer data (memories, reactions, personality traits) between units with which we have a common ancestor (or even with entirely different persons). The borderlines of the individual will become more flexible as people make copies of their mind, let them gather experiences concurrently, and then recombine them to form a united mind wiser than the original.

The wide range of possibilities that this will open up is a topic for a future article. For the present I just want to make the point that an individual is not that entity inside the skin; it is the entity defined by information content and functioning. This information may be shared between separate (or semi-separate) functioning units. In the case of true love one, has found a person with whom one shares central values and perspectives, and these ~~are~~ the elements that are vital to the identity of one's personality. The idea that the other is really "another self" is more than just a metaphor. Of course the sharing of identity with a loved one can never be anything like as great as with a recently created duplicate of oneself. Since I don't have a developed and sophisticated information-theoretic account of identity I am unable to say anything precise about how much one shares identity with a loved one. What I can say is that the more two people share values, goals and perspectives the more they share identity. Presumably, the longer they live together the closer they can become to a shared identity, since they will acquire a history of shared memories and experiences which are also part of the constitution of identity. Since each of the individuals does not control the other they are not the same person, and this sharply limits the degree to which the couple share identity. (The relative importance of shared information versus coordinated control of action and thought as elements of identity will be discussed in a future issue of Extropy.)

Although I cannot claim to have yet come up with an adequate philosophical defense of my position, I believe that it is rational to direct one's actions to preserve and promote one's own identity, whatever that may be. But, from what I've said above, it will be clear that doing this will often involve a willingness, in fact an eagerness, to forgo some things in order to benefit the one who is loved. When I (this biological unit) can forgo something I want in order to promote the more important value or goal of the one I love, then this is rational and self-preserving thing to do. If my assumed view of rational action is right, then the degree to which it makes sense for me to give up something for my loved one will be proportional to the degree to which we share identity, perhaps discounted by the probability that we will separate in the future and cease to function as one (and probably to diverge, so that we gradually cease to share identity to any significant degree).

I do not claim that sharing of interests and identity is all there is to love. Clearly it is also necessary, at the least, to talk about the emotional benefits that lovers provide one another, and the ways in which they make each other feel more psychologically real and solid by acting as a mirror in which one can view one's identity and nature (see Nathaniel Branden's *The Psychology of Romantic Love* on this aspect). I hope that I have shown that this element of a love relationship is a central and vital one. It distinguishes true love from infatuation and irrational love, and by keeping this in mind we can more easily guard ourselves against that ever present danger.

LOVE?LOVE!LOVE?LOVE!LOVE?LOVE!LOVE?LO

AGAPEIC LOVE

by Rob Michels

Marie came that evening and asked me if I'd marry her. I said I didn't mind: if she was keen on it we'd get married.

Then she asked me if I loved her. I replied much as before, that her question meant nothing or next to nothing, but that I supposed I didn't.

"If that's how you feel," she said, "why marry me?"

I explained that it had no real importance really, but, if it would give her pleasure, we could get married right away. I pointed out that, anyhow, the suggestion came from her; as for me, I'd merely said, "Yes."

Then she replied that marriage was a serious matter, to which I answered: "No."

- Albert Camus

Romantic love is an illusion. The motivations that one has for being in love and what one thinks love is rarely coincide. The object of love is not likely to be what it is thought to be, and the end result all too often shows this to be the case. How many times have you heard people talk about someone they *thought* they loved? How many times have you said the ~~same~~ thing about someone who you were ready to commit a lifetime to just a month before? Still, people make the same mistakes again and again, thereby perpetuating the illusion of romantic love. Lovers continue to follow in the rituals and belief systems created by poets and romantics who speak so eloquently and carelessly. The divorce rate goes up, adultery (which has really been given unfair treatment by those who write about such things) becomes so commonplace that it fills TV shows made for children, and marriage counselors make a good living trying to convince people that the myths they created on their wedding day still cohere. I don't suppose that this will change very much in the near future, but I, for one, will not be to blame; I will have warned you about love's illusions.

Before I go on to defend my claims against romantic love, perhaps it would help to clarify my terms. The word 'love' is used in many ways. I love warm weather, old Marx Brothers movies, strawberries and a whole range of

other things. Clearly, though, these things are not loved by anyone in a romantic way. I also love my family and friends, but not romantically. These uses of the word 'love' are natural and common -- in fact, we live in a world full of loved things, both animate and inanimate. Romantic love, however, is a whole different kind of thing, and probably should be called by a different name. But for lack of a better language, 'love' will have to suffice for the time being.

When one considers romantic love, some of its traditional expressions immediately come to mind. "I will love you forever" seems to be one of the most common and least viable. How could one possibly know this? More than half of all marriages fall apart within ten years of the utterance of those famous words "till death do us part." There is no reason for any particular couple to believe that their relationship is special in this respect, no matter how strong their feelings seem; plenty of identical couples have thought the same thing. I guess that people really mean it when they say it, though I do not understand why. Perhaps the lover knows that the beloved will respond likewise, thereby satisfying the egos and insecurities of all those involved.

One of the most horrible aspects of romantic love is the idea that when two people are in love they somehow own each other, e.g. "That is my woman," or "He's my boyfriend." This attitude causes needless grief and bitterness, not to mention a fair share of fistcuffs and homicides. People who are otherwise extremely compatible as companions and friends suddenly start to believe that they can tell their beloveds what they can or cannot do with their own bodies. Clearly, nobody actually owns another person's body, but lovers often act as if they do. The defender of romantic love may object that this is just the fault of particularly possessive lovers, not love itself. But this leaves us asking "what is love itself?"

Defenders of love can take two points of view on love: rationalist or emotionalist. The rationalist holds that a romantic relationship must be based on reason: knowledge of the beloved, experience with the beloved and other persons, and careful planning. The emotionalist holds that a romantic relationship must be based on a sort of ecstatic emotion that somehow unites the two irrespective of any rationality. In fact, many emotionalists would assert that love is essentially irrational, and that this is what makes it so special.

The rationalist insists on friendship before love. Friendship reveals whether or not the beloved would be a compatible companion. Love at first sight is absurd, for how could you know in a glance if another person is going to be anything like you? This doesn't rule out *infatuation* at first sight, however, for one look might tell you if another person has the physical traits that you are looking for. But a glance cannot tell you about more important things like another's interests or psychological stability. Whether you look at the future relationship as a giving, taking, or sharing one, quite a bit must be known about another person before you promise them your love. This other person could conceivably ruin the next few years of your life, so love must be based on careful planning. No one can afford to fall in love with a person who will trash their life. For a rational lover, happiness in a relationship can only

come from compatibility, and this can only be known by carefully analyzing the other person.

The emotionalist responds that this is hardly a romantic approach. The rationalist is trying to rationalize an essentially irrational emotion. Emotionalists hold that emotion, when it is strong enough, can provide a way of knowing the beloved in a way that reason cannot. The lovers become as one, bound together by love (or so the myth goes). Poets have come up with countless metaphors for this way of thinking, but I will spare the reader the melodrama. Without this sort of binding, the emotionalist argues, the rationalist could never establish a romantic relationship, regardless of how reasonable love might appear. You cannot fall in and out of love with someone just because you want to. If we could, we would.

Neither the rationalist nor emotionalist approaches entails a lasting relationship, however. Qualities in a person rationally desired may change, thereby making the chosen person no longer a rational choice. Similarly, the overwhelming emotions that may have brought two people together may just as quickly change to overwhelming revulsion. The rationalist calls the emotionalist's approach unwise, and the emotionalist calls the rationalist's approach a mere business transaction. I tend to think that they are both right. Business transactions between rational consenting adults are fine, but why call it 'love' rather than 'prostitution' (which, like adultery, has been given a bad name unfairly). The idea that two people can become one is nonsense based on metaphysical claims about the power of true love -- great stuff for fairy tales, but not much else.

Love is said to be unselfish, but this is certainly not the case when one is looking for a lover. Imagine Joe and Mary before they meet. Joe has just gotten over the heartbreak of his last girlfriend and is looking for another companion. He does not look for someone whose needs he can satisfy; he looks for someone who can satisfy his own needs, even if they can only be satisfied through his becoming a provider once again. Man is essentially a selfish creature who dreams that he can step out of himself and fully understand the needs of others. In truth, all he can know is his own desires. Choosing a mate is merely an attempt to satisfy the desires that he knows. Anyone who claims otherwise is either lying or wrong. Joe might claim, of course, that he is in love with Mary *herself* and not just her manifest qualities, but this is nonsense. It seems a pretty reasonable thing to think that there are essential aspects of a person that are not manifest through external qualities: thoughts, memories, fantasies, etc. and that these are known only to the person who harbors them -- not to the lover of that person. No amount of love can transcend this barrier to knowledge. (Though a bit of detective work sometimes does.) A person can *really* know only the *qualities* of his loved one.

This raises problems for the possibility of romantic love. Mary wants to be loved for her intrinsic worth, for being the person she *really* is. But knowledge of that person is something she, and only she, has access to. Mary doesn't want to be loved only for her ability to satisfy Joe's needs. She also wants to be loved after the qualities which satisfy Joe are gone. If he

did, would this give us a reason to believe in romantic love?

Many people remain together long after the original qualities that provided mutual satisfaction are gone. In fact, people sometimes remain together even after one is nearly catatonic with age or disease. This shows the self-sacrifice that a genuinely altruistic love requires. It cannot be reduced to charity -- It's far more personal than that. Few people do this with those that they have not been with for a long time. Habit coupled with a concept of oneself as a good person accounts for these actions, as well as any postulated love. Suppose that Joe takes care of Mary when none of her lovable qualities remains and she has even become hostile in her senility. We are touched by his selflessness and unconditional love. Does this indicate true love, as the romantic claims? No; Joe would have done the same thing for his dog Rover.

No one wants to be loved out of mere charity or because of their ability to satisfy someone else's desires. They may want to satisfy those desires, but they want to be loved as persons, not as servants to their beloved's desires. What does Joe really love? There are two answers to this question. Either he loves Mary, or he loves the *image* that he has of her. If he loves her for what she really is, then he must also accept the fact that he probably does not have a very complete understanding of who she is, not having access to her memories, fantasies, and thoughts. He must also face the fact that she might be a complete fraud seeking something other than what she says. In the first case, he is in love with only a part of her, the rest of which he might or might not care for if he knew it better. In the second case, he thinks that he is in love with her, but she is only playing a role. In either case, he could not possibly know what situation he is actually dealing with. The romantic might protest that after time Joe can infer enough to be satisfied with what he does know. But though he may be *satisfied*, he still doesn't really *know*, for his beloved Mary might be having an affair, planning to tell him tomorrow. Affairs happen all the time, showing that the lover was not really in love with the beloved, but rather with the *image* that he had of her, one that may or may not be very realistic.

Joe faces a certain paradox. He may be projecting himself and his desires onto the image that he has of Mary. In this case he can in some sense be certain of the qualities he loves, for he is projecting them. But then he can hardly be said to be in love with Mary. Alternatively, suppose that he is in love with her as a person and not just a projection of his own desires. Then he cannot know how accurate his knowledge is.

Love for people seems to surface in two forms: we say that we are in love with so-and-so, but there are others that we love without being "in love." These two uses of love are often used interchangeably, but they are hardly the same thing. Lovers say "I love you," but they mean "I am in love with you," which captures the romantic emphasis they intend. People also say "I love you" at times when they intend no romance at all. Friends often tell each other that they love each other with as much emotion as lovers, but obviously a different sort of emotion is intended. I find love of this sort much more realistic and useful than romance. Critics will of course say that this

friendship-love falls short of the joy that can be found in a romantic relationship. Melodrama of this sort makes me ill. It is the unreasoned and unnecessary use of the imagination.

Agapeic love literally means the unconditional love of all people. Traditionally this has been ascribed only to God, for only He could possibly be forgiving enough to love people unconditionally. This view has been held by many people over the centuries, even by people who thought that only a few of the righteous would go to heaven while the rest would burn in hell. (Burning in hell is somehow thought to be good for sinners in some weird way -- I do not claim to understand the workings of His sadistic mind.) In any case, agapeic love, put in this very strong way, would be very difficult to achieve by anyone's standards. Loving one's enemies sounds really nice until they are actively hurting you or those who are close to you. Any culture that really practiced this kind of love would not last long. Survival goes to the fittest, not the nicest. Agapeic love so strictly defined is just too demanding, but a less strong version of agapeic love seems entirely conceivable.

On a personal level, love plays a vital role in day-to-day life. Without harmony between individuals, chaos would make life very difficult to live. Even more than this, though, love can make this harmony between individuals worth our effort. It need not be unconditional or universal; it need not last or end due to minor or even radically different value systems; it need only be a friendly attitude towards another person. When people maintain this relationship long enough, they may accurately call it love. Sex may play a role or it may not; there seems to be no real reason for or against it, as there so often seems to be in romantic relationships. Sex has been tied pretty closely to love, but friends or even strangers can have great sex while their romantic partners remain unaffectionate. Jealousy breaks up many romances but people who share an agapeic relationship can be happy for each other for the very same reasons that might have otherwise made them bitter enemies. Unlike a romantic relationship, people may not see each other for long periods of time without grief or heartbreak. No ownership of the other person's body or time is intended, although these people are likely to spend time together if they are compatible with each other. Business associates, schoolmates, neighbors, etc. often become friends, sometimes finding their relationship strong enough to call it love -- though not in any romantic sense. I don't see why all relationships can't share these agapeic traits, and shed the excess melodrama of romance.

I suppose that many would say that the agapeic love that I have described is a nothing more than a good friendship. Well, what's wrong with that?

SEX?SEX!SEX?SEX!SEX?SEX!SEX?SEX!SEX?SE

Good news! Sex not only feels great, it's also one of our greatest allies in the struggle against entropy. . . .

SEXUAL INFORMATION

by Tom W. Bell

Why is sex so great?

Why is sex so great? I take it as a matter of fact that sex is great. Most of you will, I think, agree. If you're at all like me, you feel that sex is one of the best things about life. Sex is a Good Thing. But sex is also a Mysterious Thing. Considering the power of its attraction, it's time we came to a better understanding of just why we like sex so much. Such knowledge may help us to get more and better sex - something I think we all favor!

You don't have to agree that sex is great to take an interest in this investigation, however. If you don't think sex is so great, the question for you will be, "why do other people think sex is so great?" You may wonder what you're missing out on. Stick around. Indulge your voyeuristic tendencies. You might learn something.

When we first encounter the question, "Why is sex so great?" it seems too easy. We're tempted to reply, "Sex is so great because it feels so great!" Like the kind of sex that this attitude fosters, however, this answer leaves us unsatisfied. It's all over too fast! We want more answers. The question now becomes "Why does sex feel so great?"

Again we have an easy answer at hand: "Sex feels so great because it gives us orgasms, and orgasms feel great." Now we're getting somewhere, though we still need more answers. First of all, we have to ask why orgasms feel so great. Secondly, we have to account for the fact that sex is great even apart from the orgasms it produces. Why is sex *per se* so great? We'll get to that question later. Let's deal with the first question first, since answering it will help us to answer the second question as well.

Orgasms

Sure, orgasms feel great, but *why*? I'll skip the neurophysiological, psychological and philosophical accounts of *how* we feel pleasures. We're not seeking the mechanisms that make orgasms feel great; we're seeking the reason orgasms feel great in the first place.

The theory of evolution gives us just such a reason: orgasms feel great because we've been naturally selected to enjoy them. Animals wired up to enjoy sex tend to engage in more sex than animals that find sex unpleasant, and animals that have more sex have more babies. All else being equal, then, evolution leads to orgasms.

We're not just naturally selected to enjoy orgasms because they convince us to have more sex, however. Even after the lure of the pleasures of sexual union bring male and female together, orgasms play an important role in helping conception. It's pretty obvious how important orgasms are to the male's reproduction; a male ejaculates 200-500 million sperm when he orgasms, each of which carries a full copy of his DNA.¹ The male's orgasm marks the successful transmission, if not replication, of his genetic information.

Somewhat overlooked, however, is how a female's orgasms might help her to reproduce. As a woman nears orgasm, her vagina becomes well lubricated and the muscles in the outer third of her vagina contract, eventually pulsing vigorously as she climaxes.² I hypothesize that these erotic responses help a woman to conceive. Her lubrication helps the transit of the male's sperm to her uterus and beyond, conveying them to any fertile eggs that might be waiting to be fertilized. (As an indication of the importance of the vaginal environment to the sperm's survival, note that a woman's production of cervical mucus peaks as she ovulates. This mucus neutralizes the vagina's natural acidity, rendering it more hospitable to sperm, and provides the sperm with a liquid "highway" to the uterus.³) Furthermore, the contraction and throbbing of the vagina's outer muscles probably help the woman to retain the male's sperm, and even pump it inward.

It's only fair to note, however, that orgasms are neither necessary nor sufficient for reproduction. A lot of sexually repressed women become mothers, and at least a few men have been unpleasantly surprised to find that the preseminal fluid they emit prior to ejaculating carries sperm. (That's why even well-timed *coitus interruptus* makes for a poor birth-control technique; it fails about 20-25 percent of the time.⁴) So you can have plenty of babies without having any orgasms. Likewise you can have plenty of orgasms without having any babies, thanks to good luck, birth control, infertility, masturbation, oral sex, homosexuality, or various combinations of the above.⁵ But these exceptions don't nullify the general rule that orgasms (and sexual pleasure in general) correlates positively with reproduction. Nature tends to work around necessary and sufficient conditions. It's enough that orgasms tend to encourage reproduction.

¹ Lloyd Saxton, The Individual, Marriage, and the Family (Belmont, California: Wadsworth Publishing Company, 1980), 124.

² Ibid., 135.

³ Ibid., 424.

⁴ Ibid., 423.

⁵ One might well wonder why, on the average, human females orgasm relatively infrequently relative to males of the species. Perhaps it's because it's much more difficult for the male to reproduce without orgasming. But why have we been naturally selected that way? Due to their generally greater strength, males have tended to initiate and control sexual encounters. Perhaps this has made the incentives of orgasm pay off more for males' genes; because males could force sex on females, it is primarily the former that have been selected to enjoy sex. The fact that females have an equal to greater capacity to enjoy sex shows that the picture is more complex than this, however.

It seems likely, then, that ~~we~~ we can thank evolution for having made orgasms feel so great. Orgasms both tempted our ancestors into mating and made their sexual intercourse more likely to result in conception. Their orgasms led them to reproduce more rapidly than those denied the wiring for such pleasures, and helped them to transmit the "orgasm-gene" to us, their descendants. And that's why we think that orgasms feel so great.

But what is reproduction but the transmission and continued preservation of genetic information? Were it not for sexual reproduction, the forces of entropy would have obliterated our delicate and complex structures long, long ago. For ages orgasms have served as beacons, guiding human development through the shadows of fear, weakness, and stupidity. Now we stand at the end of our species' difficult pilgrimage, nearly ready to free ourselves from the physical vessels that our ancestor's orgasms have delivered to us.

Whatever physical forms our mastery of genetics, uploading, and robotics allow us to adopt, however, I'm convinced that ~~we~~ we will always enjoy something akin to the pleasures of orgasm. For one thing, they feel too good to give up! But more importantly, I think that our enjoyment of orgasms depends on something deeper than our possession of the "orgasm gene". It's rooted in our software, and that's something we'll never give up. Orgasms feel great because they chronicle the transmission, preservation, and augmentation of information. Orgasms express perfectly our joy with overcoming the dark forces of entropy. Orgasms celebrate extropy.⁶

Sex per se

Sex offers more than just orgasms, however. After all, auto-eroticism delivers more intense orgasms than shared sex. But who would give up sex for masturbation? Any connoisseur of the intimate arts will tell you the same thing: Sex is great *per se*.

Why? Well, we've already seen why orgasms are so great; it's because they correlate with the exchange of genetic information. As it turns out, we like sex (with or without orgasms) for much the same reason. Sex ~~is~~ is so great because it allows us to communicate so much information.

Consider what a rich exchange of information sex permits. For one thing, ~~sex is~~ sex is multi-channel; ~~it uses~~ it uses all of our senses. ~~We~~ We see bare flesh, hear gentle breathing, smell the subtle perfumes of warm skin, taste sweet, wet lips, and feel . . . well, we feel *fantastic*! Compare this cornucopia of stimuli with the relative poverty of watching TV (sight and sound), or enjoying a fine meal (taste and smell, with a bit of sight and touch).

Sex is not only multi-channel, it's interactive as well. Unlike relatively passive activities like watching a movie or listening to a lecture, sex requires you to take part, to both sense and respond. Sex is a form of communication -- you don't just receive input, you give a lot of output, too.

⁶ In his Philosophical Explanations, Robert Nozick draws a parallel between mental and physical pleasures, and asks, "What ~~is~~ is the mind's excitement and sensuality? What is orgasm?" (p. 24) It is just this question that I've tried to answer.

The rate of information exchange in sexual activity climbs still higher when lovers focus on particularly sensitive ~~areas~~ ~~zones~~ of the body. Erogenous ~~zones~~ such as the lips, breast, and genitals have the body's highest ratios of nerve endings to skin ~~area~~. Their stimulation allows for an especially high level of information flow. Interestingly, lovers tend to stimulate these same areas with more speed and vigor as orgasm approaches, upping input to a maximum at climax. Note, too, that sex tends to involve organs with interesting textures and shapes, making stimulating them fun for both parties.

These same erogenous areas also boast the densest collections of sebum glands. Sebum plays an important role in sex and love; indeed, it seems to be good for little else! Researchers have discovered that lovers become addicted to each others' sebum, and go through depressive withdrawal when denied a "fix." We see, then, that besides the immediate stimulation of the sensory organs, sex involves complex exchanges of chemical information as well.⁷

Ever wonder why the hours spent with your lover are hours lost to the world? It must be because the rich exchange of information afforded by sexual activity requires *total* concentration. Sex demands a lot, but in return it offers a *complete* experience: absorbing and expressive, powerful and subtle. Sex allows for limitless variations and boundless pleasures. We like sex not just because it's so great, but because it's great in so many, many ways.

SEXTROPY!

So sex involves a great deal of information transfer, both input and output. How does this account for our liking sex so much? We humans happen to like exchanging information. This ought to be obvious to anyone who has taken the time to reflect on the pervasive nature of human curiosity, or to anyone who has noted what a garrulous species we are. Let me offer some more concrete evidence, however (think of it as an enjoyable exchange of information).

While short periods of sensory deprivation may prove to be relaxing, humans react to the prolonged loss of sensory input with discomfort and stress. Those subject to sensory deprivation become so starved for information that they avidly welcome stimuli that they would normally find boring, like stock reports or children's stories. If deprived of sensory input long enough, our minds will even generate *their own* sensory input: hallucinations.⁸

The fact that other species also seek out sensory stimulation shows

⁷ In fact, it's not inconceivable that we have an inborn interest in our lovers' various orifices - their tastes and odors give us information about our lovers' inner health, information that served one well when choosing mates in the days before advanced medicine.

⁸ W. Heron, "Cognitive and physiological effects of perceptual isolation," Sensory Deprivation (Cambridge, Mass: Cambridge University Press, 1981).

that our love of information isn't just a cultural artifact. Many studies have shown that rats and monkeys seek out novelty, change, and stimulus complexity. Monkeys confined to a box will persistently push open a heavy spring door just to see what's going on outside.⁹ They will spend hour after hour working mechanical puzzles, ~~even~~ in the absence of any tangible rewards.¹⁰ Given our comparatively greater capacities for information input and output, it's not suprising that humans exhibit larger appetites for information exchange than these simpler animals.

Why should we enjoy information so much? Just as we've been naturally selected to enjoy the exchange of genetic information, so too have ~~we~~ been naturally selected to enjoy the exchange of information in general. The more we learn about the world around us, and the ~~more~~ we share what we learn with those we live with, the more likely we are to survive.¹¹ Our desire for sexual information manifests a more universal trait: the desire to exchange information of all sorts. Sex is special, of course -- it offers us especially rich inputs and outputs. That's exactly why sex is so great.¹²

Even if freed from the influences of evolution, however, I think that we'd still lust for information. We are who ~~we~~ are not because of our bodies, nor even because of our brains. It's the information in the brains in our bodies that counts. Essentially, we are particular patterns of information. Entropy would destroy us, as it would all information, if we did not fight it off by memorizing what we've learnt and expanding our knowledge. That's why we cannot help but depend on the flow of information; we need it just to maintain our identities in the face of change.

Thanks to the great channels of information exchange that it opens to us, sex can serve as one of our most powerful tools in the struggle against entropy. It persuades us to preserve our genetic selves by offering us the pleasures of orgasm; it allows us to grow mentally by sharing ourselves with our lovers through bonds of intimate communion; and it gives us good reason to want to defeat entropy's murderous force by making life ~~as~~ much fucking fun.

■ R. A. Butler, "Curiosity in monkeys," Scientific American, 1954, 190, 70-75.

¹⁰ Harrison F. Harlow, "Learning and satiation of response in intrinsically motivated complex puzzle performance by monkeys," Journal of Comparative and Physiological Psychology, 1950, 43, 289-294.

¹¹ Steve Harris makes much the same point in his letter to the editors, this issue.

¹² I began this essay with the claim that a better understanding of sex might help us to enjoy more and better sex. Well, now we know how to *improve* our sexual lives: increase the data flow! How? Communicate your desires and preferences, and vocalize your pleasures. Introduce a variety stimuli to your lovemaking -- the odors of incense and perfume, the sights and textures of ~~risqué~~ clothing, the tastes of food, and the rhythms of music. What about getting *more* sex? Ha! Figure that ~~one~~ out and you'll make a million (not to mention have a great time)! I'll venture, though, that communicating your desires and preferences makes all the difference here, too.

DRUGS?DRUGS!DRUGS?DRUGS!DRUGS?DR

PSYCHEDELICS AND MIND-EXPANSION

An essay on the intelligent use of psychedelic chemicals.

By Max T. O'Connor

To be looking everywhere for miracles is to me a sure sign of ignorance that everything is miraculous. Abraham Maslow.

1. INTRODUCTION

You and I have sovereignty over our minds. We control ourselves and we have the right to make decisions about the use of our minds and how we choose to affect them. The government thinks that it has the right to control us, to tell us what we can do, to regulate the substances we ingest. It has made the production, sale, and use of psychedelic chemicals illegal. In doing this it is claiming that it owns us, that it has dominion over our very essence, our minds. As an extropian valuing independence of thought, experimentation and the pursuit of self-knowledge and self-improvement, I reject these absurd claims of the government. Regardless of the law, I do and will continue to experiment with these chemicals. In this article I want to explain to other extropians why they may be interested in exploring the use of these substances for the purposes of self-change in a positive direction. I will primarily be talking about LSD, since that is the chemical with which I am most familiar and which has the full range of effects. Marijuana can have some of the desired effects but is generally weaker and narrower in its effects.

2. SELF-PROGRAMMING POSSIBILITIES

Psychedelics, intelligently used, can be a powerful aid to metaprogramming oneself. What does this mean and why is it important? Our minds run according to a set of programs; these programs are the

mental sets that constitute what we believe, how we conceive of ourselves and the rest of reality, and which cause us to behave in our characteristic ways. Some of these programs, such as our sexual and eating programs, are wired into us by genetic design and cannot easily be fundamentally altered. Others have been passively absorbed from other people, from parents, friends, the surrounding culture or sub-culture, religions, philosophies and traditions. Some of our programs are carefully and consciously chosen by us. The vast majority of people spend almost all of their time following programs which are genetically hard-wired in them or which they have passively absorbed.

Metaprogramming is the process of discovering what programs control one's behavior, selecting the wanted from the unwanted, then making those changes and instituting new programs which fit one's purposes. Metaprogramming is therefore a means of gaining control of yourself, of rationally altering yourself to become more like the person you ideally want to be. Clearly this is not something that can be done all at once, not only because it's a slow process but because new ways of improving oneself will suggest themselves as you make progress.

Metaprogramming is what distinguishes humans from other species. The essence of our humanity, our personhood, is our capacity to free ourselves from the externally imposed programs which limit us and prevent from fulfilling our capacities and living truly rewarding lives. Those of us who are intensely interested in changing ourselves to be able to more effectively live the way we want are always looking out for new ways of making metaprogramming easier. Once a program is in place, no matter how frustrating or harmful it is, it's often tremendously hard to change it and so it's important to look for tools which aid the process. Self-help books contain many of these tools, especially those which help one to identify the thinking that is self-limiting and irrational. Visualization exercises, meditation, introspection, behavioral modification techniques, and other approaches are fruitful - yet the task of self-change is still a hard one. I will leave the job of discussing these techniques until another time and will for now concentrate on the possibilities offered by psychedelic chemicals.

Psychedelic drugs such as LSD seem to have powerful metaprogramming possibilities. These have already been explored by pioneers such as Timothy Leary and John Lilly (see Lilly's *Programming and Metaprogramming in the Human Biocomputer*). Much research remains to be done in working out new and more effective applications and in combining it with other techniques apart from the chemical. (I hope that readers of this article are interested in pursuing this research project with me. Reports of your own experiences and suggestions for new uses and techniques are very welcome. Let me know if you wish a pseudonym to be used in any publication of such materials.) There is some direct evidence for LSD's metaprogramming enhancement effects resulting from Leary's experiments with prisoners (before his expulsion as a psychologist at Harvard), which resulted in a hugely reduced recidivism rate, and impressive effects on alcoholics who stopped drinking after a single intense psychedelic experience. There are no well-controlled studies to validate

these reports, partly due to the inherent difficulty of running double-blind trials in these cases, and partly because such research cannot now be legally carried out. The State has decided that we are not to experiment with our minds. The State likes to believe that it owns us and can tell us what to do with our most essential element - our minds. Regardless of such attempted tyranny over intelligence some of us will continue to experiment and learn.

Psychedelics aid in metaprogramming because they increase awareness of normally unnoticed programs, make changes in perspective natural, and lower barriers to psychological and emotional openness. LSD can increase your awareness of thought processes which would normally be invisible to you. Our minds are not unitary simple entities, but are complex coordinated collections of various cognitive processes (see Marvin Minsky's *The Society of Mind*). What we experience as consciousness is just that part of ourselves that oversees what the mind/brain as a whole is doing. Much of this remains below awareness (most of the time such a flood of information would be undesirably distracting), but LSD can bring more of this to the surface and allow rational analysis of those thought processes. Particularly valuable is the emergence into conscious awareness of cognitive processes which lead to emotional responses. The chemical can aid in investigations of the causes of one's feelings and facilitate modification of those processes.

Apart from increasing awareness of normally sub-conscious processes, psychedelics can break through psychological barriers that one has constructed to cover up thoughts, desires, wishes, or experiences which one found, usually due to irrational thinking, to be painful. Not everyone will find this happening to them - it is only a possibility if you have repressed and buried mental constructs which you have refused to face. I discuss the preparations that should be made in the face of this possibility in the next section.

The weakening of psychological barriers is complemented by shifts in perspective when thinking about any subject, internal or external. This is a fascinating and exciting effect of the chemical. It promotes self-understanding by suggesting new ways of seeing one's thinking, personality, way of living, and situation in one's cultural and social environment. It is common to see other people in unusual and more insightful ways. I have found that I see people more as they really are than when I am 'normal'. For instance, instead of seeing the person delivering the mail just as a part of the mail delivery system and treating them accordingly (politely but rather impersonally), I see them as an individual of potential worth, interest, and value. From this enlarged perspective I then act in a very much more friendly and personal manner. I've found this to happen all the time, when I'm shopping while tripping, or just when I talk to people I don't know. It is very satisfying when, with practice and effort, I am increasingly able to carry over this improvement in my character to my normal state. The drugs effect in breaking down barriers and promoting feelings of affection, friendliness, and benevolence make me feel more like I believe I truly am. Max O'Connor really is this outgoing always-friendly, understanding and helpful guy; it's just that sometimes irrational thoughts and fears stop me from expressing my true self. Psychedelics have a great deal of value in the process of self-actualization.

3. WHO SHOULD USE IT AND HOW?

I will not presume to tell anyone that they should not use LSD, though I will indicate some dangers that exist for certain types of people. There are precautions that it is sensible for anyone to take, but individuals with particular problems should be especially aware of the risks. As I mentioned above, psychedelics can tear down barriers that you have unconsciously constructed in order to evade facing something about yourself. Suddenly experiencing these things can be an emotional storm, and may be a risk you don't want to take. Certainly there are risks for such people (and are you sure you're not one of them?), but bringing repressed thoughts up to the surface is the only way to deal with them and to finally mend one's damaged and constrained self. It is up to each individual to decide whether they face any significant risk of this happening, and if they do, whether they consider the potential benefits to outweigh the risks. My personal feeling is that, with the proper preparations, it is a rational choice to try psychedelics as therapeutic tools if there are only a small number of potential trouble areas. For persons with multiple and severe personality problems I would suggest a course of psychotherapy and self-analysis to strengthen the self before considering the use of these powerful chemical aids. If you are not sure whether you have potentially severe repressions, it would be sensible to use only a small dose for the first few experiments.

As has long been recognized by users of psychedelics, set and setting are very important in determining your experiences, especially for the novice. 'Set' refers to the mental set with which one approaches the psychedelic experience. If you look forward to it with excitement and with positive expectations you are unlikely to have difficulties. If you are full of fears, then these may become magnified and lead to a bad trip. To induce the proper set for your early trips you should think about the exciting and valuable possibilities there are to look forward to. Listening to uplifting music and relaxing prior to ingestion of the chemical is also helpful. If you should start having paranoid or fearful thoughts, don't let yourself believe that the rest of the trip must go the same way. It is possible to control the direction of your thoughts and to steer away from anything that disturbs you. Think about this beforehand so that should unpleasant thoughts occur to you, you will be prepared to take charge of your mind and focus on something positive.

'Setting' refers to the environment in which you trip. I very strongly recommend that, at least for your early trips (and preferably always), have one or two people with you - people you know and trust and like. They can help you to focus and enjoy the experience. Your companions should understand what is going on, what might happen, and should be understanding and interested in what you are doing. Being with a tripper certainly need not be a chore - they tend to be a lot of fun and usually still engage in normal activities that interest the companions. Select music that you like (try abstract and complex pieces) and have attractive things to look at. Being outside at the beach or in the hills, for anywhere that is beautiful is

always tremendously uplifting.

It's sensible to have tranquilizers at hand, at least until the effects are wearing off, just in case you have some problem and require something to calm you down. An anti-anxiety drug such as Ativan would also be a useful back-up, though probably you will never need these (I haven't in 35 trips with dosages from very small to very large). Apparently a large dose of vitamin B3 can be calming (take it with C), although this will be less effective than tranquilizers. When the effects have largely worn off you may want to take a warm bath or have someone give you a massage to relax you after the intensity of the experience. By taking the drug in the morning or early afternoon you should avoid problems getting to sleep. Ingestion of a gram or two of the amino-acid tryptophan increases levels of the neurotransmitter serotonin (which are temporarily reduced by LSD) and so helps calm mental activity and makes sleep come more easily.

It's difficult to say much of use about dosage since because the government forces us to buy these chemicals on a black market we don't know quite what we are getting. In the '70s it was quite common to find LSD cut with amphetamine (which increases the level of mental activity) but this seems very uncommon now. One tab of the drug may not be powerful enough - in my own experience one tab of the green gel form is enough to get virtually the full range of effects, but I need two and a half of the paper form to get the same results. Try one tab of whatever you can get first and then increase the amount if insufficient. You will know that you have received a good-sized dose if you get the visual effects such as tracers and shifting of textured patterns.

I will not say much about health effects of LSD or other psychedelics in this article. I will note a few points however. LSD is the least toxic of the psychedelics partly because it comes in a pure form. Mushrooms can cause nausea because of other things to be found in them. XTC may have some deleterious effects on the brain over a long period of usage, though the evidence is not clear and, if the research is similar to other government-sponsored work, it is probably worthless. LSD itself is extremely non-toxic. You cannot possibly overdose on it - to do so would require more than you could ever afford to buy! According to Albert Hofmann, the Swiss chemist who synthesized it, LSD has never poisoned anyone, and from his figures it seems that you would need to drink pints of the chemical to harm yourself, whereas the effective dose is around 250 micrograms. It is not true that LSD damages chromosomes. As Hofmann says: "...comprehensive investigations of a large, statistically significant number of cases...showed that there was no connection between chromosome abnormalities and LSD medication." (Albert Hofmann, *LSD: My Problem Child*, p.26.) It is also untrue that it produces fetal deformities. (The incredible lies and distortions put out about drugs by the government deserves an article in itself.)

4. WHAT IT FEELS LIKE

Describing the LSD experience is impossible for me. It may not always

be impossible since we may ~~one~~ day develop the conceptual structure to put those experiences in words. All I can do here is to hint at some of the phenomenological effects of the drug ('what it 'feels' like), but this will not give you much of an idea. I will try to link some of the effects to experiences which many people may have had without psychedelic chemicals. With this information though, and that available from reading the many accounts available in various books (see Bibliography), you will feel a little more at home when you first trip.

The effects start to be felt 15-45 minutes after ingestion, depending on size of dose, individual biochemistry, and contents of stomach (the last I suspect to be true based on my own limited experience - but I don't claim scientific backing for this factor). The power of the effects will peak after about three hours, will be greatly weakened after eight hours, and virtually unnoticeable after twelve hours. I still find that the initial hour of effects excite me and sometimes lead to my feeling a little apprehensive (if it's a high dose). After a while I get used to the effects, even though they're still increasing in force, and lose any apprehension. This initial 'acceleration' (as I think of it) usually leaves me and others I've observed with little desire to move around or do anything very active. This wears off soon and then a desire for activity will return, interspersed with periods of stillness due to intense thinking.

One of the widely recognized visual effects of LSD is the 'tracer' phenomenon. This is the result of the brain retaining after-images and displaying them to the 'self' (which I won't try to define in this article!) much longer or at least much more noticeably than usual. Watching a crowd of people mill about is fascinating due this effect, as is watching the traffic go by. Another invariable visual effect is on the texture of fabrics, which will seem to shift around and to foam like a raging sea. This will happen not only on things like carpets, but on pebbly paths and cement sidewalks. Striped materials appear wavy and mottle.

Something deeper than a simple visual effect leads to the reading in, or noticing of, more patterns, images, and structures in paintings and drawings, as well as in stories, ideas and concepts. Two-dimensional patterns or images may appear to have three-dimensional aspects, and these newly perceived (or pseudo-perceived) aspects will tend to change their structure. You may spend long periods of time (compared to the norm) staring at objects, often simple in nature (as normally seen), recognizing a new feature, a connection to other objects, a hidden beauty, or previously unrecognized feature.

Whether you are walking in the woods, looking out across the sea or a landscape, gazing at the sky or the stars, or even something less grand, you may find yourself overwhelmed by a feeling of tremendous awe, a recognition of beauty and wonder beyond anything you had ever dreamt possible. You may find yourself sinking to your knees wanting to express your worship or thanks, and you may cry in ecstasy. Some people have religious experiences in which they believe they contact 'God'. This may happen if you have a religious upbringing or are used to interpreting knowledge about the world in a theistic framework. In my case, and those of the other atheist and agnostic trippers that I've talked to, this feeling of wonder is not felt as

religious or spiritual (in any non-physical sense). I feel, more than ever while under the influence of LSD, that all reality is physical and understandable by the rational methods of empirical enquiry. "Awe" is perhaps the best expression, since a "desire to give thanks or praise" suggests the belief in a creator or sustainer of the universe. The awe that I have experienced is what has been described for centuries by mystics the world over. It is a feeling of understanding the universe in its entirety, of seeing all the connections, as feeling an integral part of a *whole*.

You may also believe that you have had some fundamental and undiscovered insight about the nature of reality. You may exclaim "This is it!" and babble excitedly to your companion. Unfortunately you will find that a later reading of what you have written (or it may be taped) will prove disappointing, seeming much more silly and trivial or incomprehensible than important. I remember on my first powerful psychedelic voyage I discovered not one but two basic secrets of the universe; unfortunately they were mutually exclusive. I am now usually able to remember this fact when I trip, so I don't take these 'discoveries' seriously. You will also generate more limited insights, and some of these will remain interesting even when you are thinking normally again. Psychedelic chemicals are excellent for coming up with new ideas or developments of previous thoughts. Though your idea-generator is working much more efficiently than in the straight condition, your critical faculties will be a fair bit lower (you can learn to *partially* compensate for this), so you will have to later sort through your new thoughts for the really good ones.

When you are in a calm, physically less active mode, you will find yourself becoming intensely reflective. You will think about things on a more philosophical level, you will see things in a different light, and you will find certain thoughts to be deeply fascinating and gripping. You will also start to think about yourself, your personality, and your memories of your earlier self much more than you would while normal. You will probably see yourself in a more objective light than usual, and you'll experience a breaking down of barriers of self-deception and evasion or repression. It is this effect that can cause an emotionally traumatic reaction in persons who have repressed strong aspects of themselves, who avoid facing something about themselves that they don't like, or who don't really like themselves. That's why I recommended caution or abstinence for such people. Of course you may not believe that you are such a person (this could be a side-effect of repressed thoughts). Those who suspect that they may have some of these unresolved problems may nevertheless want to use the chemical in the hope that they will gain some psychological benefits through its use, deciding that the benefits outweigh the risks. I think this is a reasonable choice for some people, but I would urge them to be sure to have at least one friend around and some kind of tranquilizer just in case the emotional disturbance becomes overwhelming. If you are already a very self-reflective person and are sure that you don't have any major buried problems (recognized ones don't seem to ever be a problem) then this will not be a worry for you. After 35 LSD trips I have never once had a problem of this kind. The nearest I came (which was not near at all) was a 15-minute period in which I experienced sadness, loneliness, and frustrated desire for a romantic

partner, which caused me to cry. I felt this episode to be purging rather than disturbing.

A connected effect of LSD which can be very valuable is its tendency to make emotional openness, honesty, and expressiveness both to oneself and others more easy. You will be less inhibited in expressing your emotions and will be more interested in others' feelings. This empathic effect is especially strong between who are tripping at the same time. It can deepen friendships and remove barriers, false fronts, and conventional constraints on affection and empathy. Reportedly, this is the major effect of MDMA (XTC), but I cannot as yet report on that from first-hand experience. You will also come to understand people different from yourselves and feel more well-disposed towards them. Your reactions to the behavior of others may be quite different. You will probably be more friendly and compassionate, more benevolent, and sometimes more paranoid. I have found that my temper disappears most of the time and I take hostility, unfriendliness, and other negative behaviors of others in a more philosophical and less personal manner.

There are some physical effects that you can expect. Most people feel some stiffness of some muscles (usually the jaw or neck or buttocks) which results from the tension apparently induced by the intensity of the experiences. This is a minor discomfort and can be reduced by periodic stretching and loosening exercises. Your hands may tremble a little, and you may feel that your whole body is vibrating with some strange energy. I feel this to be neutral or pleasant, and it tends to make me feel more alert. Your body heat will rise and your face will sweat more. Your thoughts will be faster and more intense and will contribute to your bodily feeling of increased energy and alertness. This effect means that you cannot expect to sleep if you take the chemical within 12 hours of your intended bed-time.

If your trip is a good one, as it is very likely to be if you've paid attention to the contents of this article, you will have a feeling of well-being, a belief that life is wonderful and that you are freer to achieve what you want than you had felt before. Laughter can come suddenly and without warning, though experience will make it more predictable. I've adopted a friend's term for this - the "cosmic laughs", since it fits the power of this hilarious condition. Laughter can be very strong, uncontrollable, and persistent. I haven't had this too seriously (!) in public (it seems to be possible to head it off if you really want to) but have been unable to talk due to mirth in private. This is extremely enjoyable and quite therapeutic - you end up feeling a little weary temporarily, but cleansed and rejuvenated.

Some cognitive functions don't function so efficiently while tripping. You may experience loss of a memory that you would normally have (this has only happened to me once), and you may lose track of conversations because your mind tends to shoot around, thinking of many things at once. You will never have any difficulty remembering what happened while under the influence of the drug however. An effect I've never experienced but apparently common is that you may be unable to speak for some time. I suspect this is due to the transition from thought to speech being rapidly and continuously broken up by the shift to new thoughts or ways of expressing them. I think the longest that I've seen this last is for about an

hour, though most episodes are much shorter. There is no reason to find this distressing. If it happens, just relax and focus your attention on something other than talking.

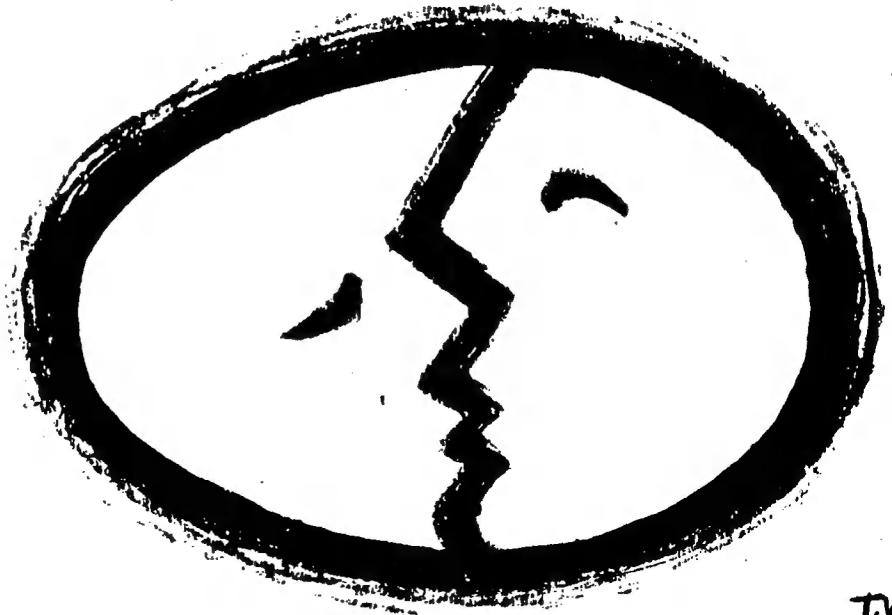
Other people's faces, and especially your own can alter, assuming amusing or frightening forms. I find this happens very little when I look at the faces of others, but is very common if I look in a mirror for any length of time. What happens depends on the dosage you take, on the expressions you actually form, and on the thoughts in your head. I dislike grimacing at myself as this tends to be unpleasant, but smiling usually makes me look like a clown! The mirror image may look like another dimension, giving you a feeling that you should be able to pass through into another world.

When around people that I find attractive I usually become even hornier than is usual for me. Those who I would usually find attractive become more so, and I find more appealing those who would normally be of minimal interest. It is widely reported that sex while heavily tripping can be incredibly intense and wonderful, and that orgasm can feel shatteringly and stunningly superb. If you can find a partner willing to do this with you while you are tripping you will probably want to try it.

Apart from alterations in the way some external things appear, you will find that with your eyes closed you see geometrical patterns, abstract shapes and, on high doses, incredible panoramas in brilliant colors. You can get a similar (though more static) effect by closing your eyes and standing in front of a strobe light - you'll be surprised at the colors that appear despite the strobe being plain white.

In both perceptual and conceptual contexts you will find yourself discovering or inventing patterns in your experience. This reading in of significance can be helpful in the metaprogramming process since it supplies you with explanations that you would not normally think of relating to your own and others behavior. It's necessary to apply critical faculties to these results since some of the new patterns will be genuine insights whereas others will be illusions or fantasies. The chemical seems to excite the neuronal network into a frenzy of structure building without the new mental structures necessarily representing reality accurately. The psychedelics are valuable as tools for boosting creativity and productivity of ideas and understanding, but this process needs to be supplemented by a process of rational examination of and selection from the results.

This explanation of some of the effects of LSD (probably the best metaprogramming chemical agent currently available) should make your first experiment less alien. I recommend reading a couple of books which include a wide range of descriptions before you engage in this project. You can get a list of books on the subject from your library; I recommend Sidney Cohen's "Drugs of Hallucination" in particular since it has a relatively balanced presentation. If you decide to embark on a chemical metaprogramming project, I would be glad to hear your results. I'm also interested in discussing specific techniques to be applied while 'under the influence'. Any useful suggestions in this area will be incorporated in a future article.



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EXTROPY

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