

FAN-TODS

"for the tod fan"

Numero Ocho

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### \_\_\_\_\_that's all there is, there isn't any more \_\_\_\_\_\_

This, people, is Norm Stanley's eighth fit of Fan-Tods, which will be a part of the twenty-ninth FAPA Mailing only if by some miracle we get it into Larry Shaw's capable hands before September 2, 1944. Efty is done by Norm on the diabolic duplicator, located at 43A Broad Street, Rockland, Maine.

### remember creation took eight days

MFSsions: Lack of time it is that makes efty-eight such a regrettably (?) ((Who trun dat (?)?!)) abbreviated issue. Of course my customary dailying (I'm the dilly of the dally, yknow) had something to do with creating this temporal inadequacy, but this is a consideration which I. won't embarrass myself by even mentioning. 'Tis with regret, though, that I omit a length article by Chan Davis, which was skedied for this time. It's entitled (very tentatively) "The Differences in the Criteria Applied in Judging the Products of Different Kinds of Intellectual Effort", and will definitely be on hand in December. We know you can hardly wait! There's an installment of "Riposte" this time, though, after, le, these many moons, an event which comes as much a surprise to Russ and us as it must to you, deareaders. In justice to LRC I'll again state that "Riposte" is composed of stuff lifted verbatim from his letters. The present installment is a reply to several naive queries of mine anent aging and the possibility of immortality. "Yesteryears" runs to three pages again. I'm thinking of expanding this feature to a regular length of four pages or so in order to present some of the longer items in toto as well as continue the short, more-or-less humorous, excerpts. All of which leaves me just room enough to say: Congratulations, Al! There's no one I'd rather see in the Vipre's Den more'n you (except me). Felicitations to the other new officers, too. We've a competent group of them. (we see our cover Tries is a Buncle .- Sound)

di wada



Louis Russell Chauvenet

Of course the brain cells we are born with were grown during prenatal development and it is less and less the accepted thing to take birth as the starting point in our careers. It does seem to be true enuf that once the nerve cells of the brain have become highly specialized they persist without reproducing, and there does not seem to be any instance recorded of regrowth of brain tissue in post matal years; the reaction to injury is simply that the brain finds different nerve channels to bypass affected or destroyed area, whose functions are taken over to greater or lesser extent by the remaining brain. (Controlled operations on dogs, cats, and lesser mammals virtually prove this). And while it is true that body nerves in some cases heal after cut or torn, this is not, if I recall correctly, so much by production of new cells as by extension of the dendrite and axon processes of cells adjoining opposite sides of the injury. It is a general characteristic of body cells that after reaching a certain degree of specialization they lose reproductive capacity and can thus no longer replace themselves. body's reserve of undifferentiated cells capable of breeding replacements is what (aside from disease or injury) probably plays the most important part in controlling the lifespan of the individual. serve almost always decreases with age; thus repairs to injuries, while they do not cease to take place, become slower and slower; obviously a one-way street with Jack Ketch at the end. "Solch is life," said he hazily.

You couldn't hybridize an amosba; but paramecia show primitive sex life ((blush: --ns)). They normally split amosba-wise; but eccasionally must conjugate to maintain vitality of strain. Two of them exchange nuclear material in the primitive beginnings of sexual union and then split as usual and the four resulting paramecia show new vigor and 'youth!. As for Winters'\* final discovery, the future in which immortality is made possible by hybridizing body cells at intervals, well, I don't see how you are genna hybridize cells which refuse even to reproduce themselves!

Inbreeding per se should not have a particularly deleterious effect unless there are present recessive genes with unfavorable effects. Once you've banned your recessives by eliminating the defectives, you can breed true a long time; how long I dunno but other factors probably set a limit. The Pitcairn Islanders have inbred for a hundred years and done well. On the other hand the widespread primitive taboos against intermarriage may be biologically sounder in the long run; eg the custom in the Paumota Archipelage of having the young men take their brides from other than their own islands. (Etc.)

Minor cell mutations among the body cells, so-called somatic mutation, is of course of importance solely to the affected individual,

<sup>\*</sup> Laurence Manning, "The Elixir", Wonder Stories, 5, 2 (Aug. 1933).

the there's a possibility the tendency toward gene instability may be inherited. It is mostly considered to take place during formative stages, not in adult life. In Drosephila hundreds of instances of some atic mutations are known; most frequently by the appearance of a recessive trait in a small area (sometime as much as a half) of the body of a fly heterozygous for the trait genetically. If the somatic mutation occurs in 2 cell stage all descendants of one cell show \$6, and the fly is a and . If at \$ 4 cell stage, \$ of the fly will be affected, etc. (which is interesting). It's all very well to blame radiations for mutations of this and other kinds, but just because strong doses of radia ations of X or cosmic frequency produce mutants does not imply that all mutants are similarly caused; It fact it is extraordinarily rare in the natural world to encounter radiations of the strength employed for artificial creation of mutations, yet mutations go on occurring. So avoid the oversimplification which is so tempting. Your theory of successive degeneration of cell races being caused by radiation does not look so well to me. If U consider the nature of cells and more particularly of protoplasm, and the improbability of a wandering ray (I sound like cummings?) scoring a hit on an atom that happens to be an important one: well! I have reneged from my former worries anent radio waves, etc.

The psychological aspect of immortality is not of immediate concern to me, since Mephistopheles seems reluctant to make me an offer, being perhaps already sure enough of my soul so that it would be wasted effort. It is said somenlace that by the time a man is ready to accept the offer to sell his soul, the devil need pay only as an act of pure charity, as he's in line to collect such a soul in any case. Sounds reasonable. I think I even put this quote into Listening Post once, but I'm too lazy to look it up.

I have a note here which says "The dream mind ain't logical. Dreamt was fighting in war----details of hand 2 hand combat----throw grenade into tank divided into 3 compartments---opponent must jump into any one of the three without having seen which holds live grenade----if he guesses wrong, ie, lands in grenade compartment, result is he is taken prisoner (!)-----I lost, & went to prison camp; no end luxurious. Flenty leisure. Family visits; we escape in station wagon (beach wagon to you) & pass Ralph Alman an his way to play golf." (Note, RA, now in medical school, went to college wif me. He hates golf and has never played!) This note is dated 5-22-43, at which time I still had final exams to face at the U of Va. I don't know the correlation. On the back of the note is a relic of S-T days reading "Fortier Marconette Expire Warn"; a cryptic "ed" all by itself, rubber stamp practice; and in pencil at the top the simple note, "W H Hudson The Crystal Age" which now reminds me of my success in obtaining this from Widener's library at Harvard. It was wonnaful. Specifically I liked the way in which the complete otherness of the sylvan society is made evident, slowly and with increasing effect.

Coeurl just prowled and prowled

TRIVION: The intriguing incantation adjoining is something I find I scrawled on the back of an SS notice to report for physical examination. As I recall, it was simply a matter of spelling, but still it's an odd association. PS: I wuz rejected! PPS: Method not guaranteed. --nfs

TSAGGUTHOA TSAGTUGHUGA TSAGGTHUA TSAGGOTHUA TSATHOGGUA

# YESTERDAY'S 10,000 YEARS

the time angle will be proper to believe and the same

"I sympathize with the fellow who got tangled up in the tesseract. I once made one myself."

Milton A. Rothman -- Astounding Stories, Feb. 1936

Tell us all about it, Milty.

"An Italian inventor made two women who were in conversation invisible. (He couldn't stop them talking, however.)"

Frank W. Moffit -- Astounding Science-Fiction, Mar. 1938

"I remember begging my mother, at the age of six, to buy me a certain magazine profusely illustrated with box-shaped, green-colored individuals with one eye. I particularly remember something of a sentence telling of their drinking something solid, very much like dope." Bernard Simon -- Amazing Stories, Aug. 1928

"You do not indulge in throwing brickbatz at the unfortunate staff of this magazine.

Editorial Comment

-- Amazing Stories, Apr. 1934

Oh, Doctor Sloane!

"For humanity to change its nature and learn to love its brother man will require thousands upon thousands of years. The change will require a complete mutation in the evolution of psychology, and those things don't happen in years, or even in centuries. That war will be too terrible for nations to dare to go to war? It may be so, but I think not. The chief horror of war is not the numbers killed, but the ghastly condition of the wounded. In the future war will be a process of absolute extermination. There will be only the quick and the dead. There will be no intermediate class of ruined wretches, filling the world with horror at their condition. Death will come quickly. It will either kill or spare. Attacks will be too powerful to merely wound. Combatants will have to either escape or die instantly. The result will be, not horror, but rage, blind rage, and a sense of revenge. Human nature will cry, not for peace, but for war."

George R. Turner -- Amazing Stories, Jan. 1934

-0-"For 'Brass Tacks' my appreciation of Schachner's 'City of the Rocket Horde', a truly cutstanding story." Norman F. Stanley -- Astounding Stories, Feb. 1938

Why??? Ghod, scmebcdy tell me why!

"When Keller writes a story like the "Human Termites' and you print it, I give up in despair. Keller must be a dope fiend or an escaped maniac. There's a sanitarium out in Islip, Long Island, where they keep that kind of people. You better keep an eye on Keller. He may be dangerous. . . Ants twenty feet long, central intelligences! Ha! Ha! Don't make me laugh. Oh yes, Mr. Editor, there might be common earthworms six feet long and one inch thick. But ants twenty feet long and central intelligences! Ha! Ha!"

Morris Z. Ingher -- Science Wonder Stories, Mar. 1930

"In his recent letter Mr. Rudolph Castown implies that the idea of time travel is incompatible with the law of conservation of mass and energy. I believe that his reasoning is wrong in this case, and that his difficulty lies primarily in the assumption that a body moved in time is transported into a different universe. According to Einstein, time and the three normal dimensions are so related as to form a continuous, inseparable medium we call the space time continuum. Time is in no way independent of the other components of our universe. Hence a fixed mass moved in time is by no means lost from the universe, the action being analogous to a shift along any other dimension. I hope my point is made clear."

Stuart Parsons

--Astounding Stories, Jan. 1938

"I am only ll years old, which I think makes me your youngest reader. I think both AMAZING and Fantastic are the greatest magazines I have ever read:"

-0-

George Ebey

-- Amazing Stories, Nov. 1942

"Having just read Part I of Dr. Smith's 'Galactic Patrol,' I would like to offer a few comments, particularly concerning one long-neglected subject, thermodynamics in interplanetary travel.

the common belief has been that space travel in the universe depends on the much overrated 'dynamic clairvoyance,' as it has been called, instilled by widespread misinterpretation of the correct facts--often due to the science-fiction authors themselves. The popular conception of gravitational nullifiers and machines for travel in other dimensions has always been the basic foundation for this extensive misconception.

"A new light should be received by novitiates of the new order of interplanetary transference. Thus we consider it an ideal state when gravitational effects are reduced to a minimum, thereby annulling the usual misconception hitherto maintained by supporters of the Von Hochberg theory--the most convenient conception to-day. A conservative outlook is always to be desired; at any rate it is best to consider the future of manipulatory interplanetary exchange and to overlook a past of fallacious ratiocination which has never pleased me.

"I shall welcome letters from any one who wishes to continue discussion with me
along these lines."

L. S. Bergh

-- Astounding Stories, Dec. 1937

Any takers?

-0-

"And, Editor, give us another cover (story) contest. I have written many science stories, amateurishly, and can hardly hold myself in restraint when I know that some of my friends who have also written science stories, chiefly among them, John Reibel, author of 'Voice from the Moon', also of 'Emperor of Ten Worlds,' both Sunday Times, and Bernard Kantor, author of 'Invisible World' and 'Beyond This Finite World,' and are also waiting for a chance to number as contributors of 'Our' magazine."

Jerome Siegel -- Amazing Stories, Aug. 1929

Nerts to dem joiks; give us Superman!

"I am only nineteen and have had but a highschool education. Nevertheless, though I am by no means an able mathematician, I wish to express some opinions on the much discussed fourth dimension."

Jack Williamson —-Amazing Stories, Oct. 1928

"When I want scientific stories I want them to deal with the wonders of science and the possibilities of such science in the future. Those stories should be about super-men, geniuses and cool and calculating scientists which would rate them more respect from the reader than would a scientist with tears streaming down his cheeks, a woman hanging onto his suspenders, a squalling kid in one arm and his other hand pulling down a switch that would wipe all humanity off the map."

--Wonder Stories, Sept. 1930 C. K. Rodgers Still, C. K., you'll hafta admit that the destruction of humanity

would be sortuva lugubrious occasion.

"If an atom has never been seen, how is it known that there is such a thing?"

H. Bugg --Science Wonder Stories, Feb. 1930

Maybe Mr. Bugg has something there.

And the control of th

##Special math. section for Oliver Saari. Others proceed at own risk. \*\*

"You can get gloriously drunk on modern physics, but if you don't watch your step you're in the gutter instead of the life of the party." P. Schuyler Miller -- Wonder Stories, Oct. 1931 -0-

"In order to give a body a certain velocity, its kinetic energy, or energy of motion, must be increased to a suitable value.

If we let E equal (kinetic) energy

M equal mass of the body at any instant

Y equal velocity of the body at that instant, then physics shows us that

E I MV<sup>2</sup>
lating
dE I MVdV
2. Differentiating

dE MVdV

If the mass of the body remained constant, equation (1) would be strict ly true over any range, using a constant value of M.

"However, relativity has shown that the mass of a body is a function of the velocity in accordance with the Lorentz-Fitzgerald equation

If we now substitute in equation (2), we find that

If we substitute in (2), we find

dE z cMVdVc2-V2

(4) To find the total energy required to change the velocity of the body from zero to c (the velocity of light), we integrate between those lim-

me vez vez z -mez

where the negative sign indicates that the energy must be absorbed or put into the body.

"In other words, the energy required to raise the speed of any body from rest to the velocity of light is equal to its mass at rest multiplied by the square of the velocity of light." -- Amazing Stories, Aug. 1931

P. Schuyler Miller



strictly noncreative comments on the twenty-eighth mailing.....

STICKLESS STICKERS: Fen, beware! Remember the Maybrick Case!

HORIZONS: Wot's the "QY9" in your address for, huh, Harry, huh? sounds positively pharmaceutical. . . . . Oh, but the NFFF is to be no mere nose-counting affair. Don't you see, H., It's the poor fan's WPA, with its policy of made work and a project for every fan? . . . Its - It's: Yeah, and my pet gripe is the dogged insistence with which so many people spell it "nickle". . . . . . Is there any relationship between Langley Searles and P. J., other than that both are bibliophiles? I'd thought perhaps it might be one of those exceedingly rare sonfather combinations in fandom. The only other case of such that I can think of was that of the Tillmans, and at that T. pere was not an actifan. . . . . . Although FAPA is, in the mechanics of its functioning, patterned after the general aj organizations, I'd. say that the Fapist philosophy is altogether different from that of the non-fantasy groups. We're mostly concerned with writing about things which interest us; the others with turning out pretty leaflets. Unless we altered considerably our editorial ways I doubt if our influx would have much effect on the ayjayers, It'd most likely be a case of "much edified were they, but ... "

Would an objectionable publication mailed out by an individual fap for FAPA circulation, and so labelled, be grounds for action against the organization as a group? That is, if that LASFS bundle with the grapefruit ad had been examined and barred from the mails, could the PO authorities deny the FAPA Official Mailing entry to the mails on this ground alone? What's the law read in this, anyhow?

I don't see why you should have any trouble identifying the authors of the various notes in Yesteryears. The system I use is consistent. Look ye, now, everything before any letteriter's name, and not bracketed, is by that lr. Brackets are for editorial interpolations, usually by the pro ed, but if not are otherwise initialed. If footnotes are by the pro ed they come above the magazine credit line; if by myself or Suddsy they come below, and in this case are clearly identified. Oh, but wait amoment. This is terrible: I see there is an ambiguity, after all. That bracketed /time travel/ which is Suddsy's, I guess. I apologize, and warn everyone that it'll probably happen again.

Ah, at last someone who spells it "New Castle"! more than commonly this time. Alas, but I have no record player. Some day I shall have a record player, and then, ah then .... . . . Your idea of a shorter school day kinda rum counter to the current notion that the child's play activities, as well as his education, should center about the school. Or does it? Tell us more. 'Twould seem that if we expend large sums for school buildings and equipment we should plan THE RESERVE

on its working for us continuously, rather than just twenty hours a week Are you gonna teach the kids touch typing in those first five years? Could be done, I spose, but you'd have to provide machines with key-boards cut down to the kid-size finger span. Typewriting has been introduced in the early grades of some schools, but my impression was that it was on the peek and poke system, though I dunno for sure. Typing is a must, though. I learned it after graduating from high school, and would be lost without it, whereas the years I spent on penmanship drills were pretty near a totaloss, to judge from my present indecipherable script.

A TALE OF THE EVANS: Wonder how long it'll be before he runs out of those clever ideas for his covers? This one's the best yet. Check you on "La Valse". I'd like to put that on the hypnobioscope some night and see what kind of dreams it would give me. All the decimals you want, too, on the cooperative movement. If we've gotta collectivize, there's the sensible way to do it!

Yeah, Mr. F., I just had to know. I can appreciate that the matter was quite beyond your control, and, by strict constitutional construction, WJHTDI, rather than the gestating FS, was properly your admission credential. So it served a good cause, anyway. Only explanation, which is not an excuse, for my remark is that it seemed howlingly funny at the time. The fact emerges that I'm a first-order goop. Sincerest thank for pointing it out.

I wonder if the misspelling on page one, fourth paragraph, eighth line of this ish was purely intentional?

EPHEMERON: From the etymological standpoint, how could it be? As fandom's own and only biennial here it's celebrating its second anniversary. Oh, but Russell, I'm not tod of the fen, at least not yet.

PHANNY: Poetry it gifs! They all come to it sooner or later. Moron Genius rates tops in the brain-busting division this time. This is wonderful! DBT seems to have launched the most interesting discussion since someone innecently suggested that war had some value. But I still question if you can attach any meaning to IQ numbers like those van Vogt threw at us in "Asylum". Now my understanding has been that the IQ is considered a reliable measure of innate intelligence largely because of the fact that it remains fairly constant for those years of the individual's life during which it is directly measurable. Thus if your child at two exhibits the abilities of a three-year-old, it is likely that he'll be somewhere around the nine-year mentalevel at age six, and about 18 at 12. But now you introduce two-years who reads science-fic-

ion and is doing fine with high-school algebra and French. You measure his intelligence and conclude that here is a genuine high-tension thinker of 10 700. But what will you find by his third year? Mental age of 21? Now you're extrapolating. At four years will he show the ability of a man of 28? If he does it's a pretty sure sign that he's not living up to the promise of ID 700, for the curve of mental development has levelled off before this age and any further gain in mental ability represents acquired learning. So that an IQ based on this extrapolation would be too high. If your precocious kid's innate intelligence were really constant he'd therefore be far beyond our best minds by his fourth year. In the one case his IQ would be deceptively high, while in the other it would be quite unmeasurable. Hence you're obliged to measure the super-intelligence at a very early age (which, while it can be done. is not the most reliable sort of observation) in order to get a figure for mental age which is meaningful. The real nub of all this bushbeating is that IQ is strictly an empirical estimate of intelligence, based on data derived from the study of normal human beings. You can apply it to these normals and to the range of genius to idiocy ordinarily en-Beyond this you must extrapolate to a degree greater than countered. the standards warrant. To measure super-intelligence you need a scale derived from data on the super-intelligences.

angle, rather more speculative, to cast doubt on whether such a case of enormous precocity as you suggest would really forcehadow development of a supermind therefrom. What justification have we for the belief that a superman would develop his powers so rapidly? It seems to hold more or less true that the higher forms of animalife are characterized by longer periods of infancy. Place a newborn child and a newborn ape together in the same environment and the ape will outstrip the child in their first few months. Observations taken at this stage would show the ape to be superior to the child, but that is not so for their positions will be reversed within the year. Can we analogize for the case of a normal child versus an infant superman?

to me with diagrams how it is your hop ball can rise if the forward surface is turning upward. That gives the top surface a backward component and the bottom a forward component. Compounding these with the forward velocity of the ball gives the top the lower speed relative to the surrounding atmosphere. This puts the high-pressure area at the top, which oughta shove the ball down. Nor do I see how you account for the "break". The pressure difference can't "tuild up"; it must continuously decrease as airesistance slows down the ball's rotation, though it's conceivable how the curvature may increase if the ball's translatory motion is damped faster than its rotation. But the whole process is continuous—there's nothing about it to cause the sudden jump Harry describes.

lowdown on wprinting is much appreciated. Now if only Ashley will break down and tell all about mimeophoto:

FAPA BLOTTER: Maintains its usual high standard under the new editor-ship.

FUTURIA: Weren't the saddle-stitched Gernsback Wonders of 1932-3 real science fiction magazines?

ECCENTRIC'S ORBIT: Eddie Clinton's case for "The Stars Look Down" is perfectly airtight. But I still find the story insufferably gooey. "Superman" is super-Liebscher. Has somebody an aisle I can roll in?

LIGHT: I would not be mentioning the "squads right" lettering on your cover, if Art Widner hadn't pointed it out to me. By golly, but your fan map idea has caught my fancy. I think I'll make one. The lights would be nice, but I think colored pins will do for me. The stuff on radio was most interesting. Do the relay stations have any advantage over cable transmission, other than that of cost? Also how about the number of frequency bands that a cable could handle, as compared to a relay station of comparable cost? The "precipitron dust collector apparently works on the same principle as the Cottroll precipitator. It's unimportant, but I'm somewhat puzzled as to what there was about my published letter to call forth your statement of policy. Losh, mon, I'd no objection to being quoted. If I had I would surely have said so. More unscientificts, please!

PLITHERINGS: Helic is a nice name for a dictator. Sax does all right. You have some interesting thoughts in your verses, too. I especially liked "Purpose".... I wasn't aware that I say "had" for "hard". Do I really? What I do say is "hahd", which, confueringly enough, comes out in phonetic symbols as had. While my "had" in phonetics is had which is standard Americ, ain't it? My suppression of r not followed by a vowel is, of course, typical New Englandese. Thus around his we say kliz, kat, fD, foa (tr. - "clear, cart, for, four"). I can say "Frank Robinson", but I can't cope with "Rrepublican". And in Spanish classes I always said "but" when I meant "dog". I question, though, if speech differences such as these are being preserved. Leveling is apa rently active in this neck of the woods, where the pronunctation of the complete diphthong oa, as in "road" and "boat" and the diphthongizing of the o of "bone" to give boan are rapilly giving way to the general American use of the simple vowel o in both classes of words. And there are lot of leveling influences which haven't yet had time to show much effect. We've had radio cut of the fan stage rather less than twenty years; motion pictures have had reasonably good sound for an even shorter period, and don't forget there are large numbers, too of people who have done little or no traveling. Y don't you turn your empty to container over to the paper collection and go buy yourself a tube of Kelynos paste? It has algin; (Plug.)

You might look up the first installment of "Breed of Helics", in Bob Swisher's files, Chan. Bertin doesn't say whether or not the critters he describe therein are animals, but the sugrestion is that they're not. For a world capable of supporting life as we know it, and if that world holds life at all, is not the probability overwhelmingly in favor of there being a life form which employs photosynthesis? And with photosynthesizing life in existence the door is open for the appearance of non-photosynthe lzers, verdad? So, unless you're prepared to describe a plausible by ochemistry which differs fundamentally from that of our world, it looks like your ets, if you insist that they be off-trail, will have to be exther photosynthesizing forms which are not plants and non-ditto which are not an-Or do I cramp your style by not considering beings with an ammonia chemistry, crystal critters madeout of silicon, liquid and gaseous life, heavy people who walk through solid rock or dwell beneath the twelve-foot-deep atmospheres of dwarf stars, space-breathers who feed on radioactive minerals, and all stef's host of entities of sentient metal, pure force, disembodied thought, aso, aso? I don think the stefwriters have done so badly at inventing ets.

I agree utterly with you about my use of the indefinite article. I've reformed, so elp me:
About pi, I don't know how it would behave around a dwarf star or a

rotating wheel. I think likely it would decrease, but I ean't prove it. An actual physical body in either of these situations would be in accelerated motion for which the Lorentz-Einstein transformations of special relativity aren't valid. It's a goodeal like the famed "twin paradox", wherein the symmetry of the L-E xformations governing time contraction leads to the remarkable conclusion that if your twin went a-spacevoyag+ ing at near light-velocity then on his return you'd be older than he and he'd be older than you. This conclusion is phoney, of course, since in order to return he'd hafta accelerate, which would invalidate the transformations. Furthermore the readily-confirmed fact that it's your twin, and not you, who has accelerated destroys the symmetry, whence the doctrine of general relativity sez that time goes slow in an acceleration field and that the traveling twin wall end up the younger of Though again I can't prove it, I think that any periods of uniformotion occurring on the space voyage could be treated as periods of zero acceleration contributing nothing to the total discrepancy in elapsed time, despite the way clocks on the spaship appear to act as observed, via ship-to-planet television, by the stationary twin. Which little discussion doesn't shed any light on the pi question, but goes in, anyway, as an aside to Swisher, who will doubtless reward my industry by shooting it fulla holes.

Now back to the harsh realities of war. This seems to be one of those cases, which Jack Speer would find irritating, of two disputants' using each other's premises to arrive at opposed conclusions. I think that it's really a good thing, though, in that at least it shows that we're still speaking the same language. But it does indicate a need for a restatement of the issue. A lang time ago, tack in Efty-one, I said I thought we were in for a more peaceful (or, if you prefer, less warlike) cultural stage. I gave two reasons, which I found both necessary and sufficient, for this belief. One was that war, as it is fought today, is economically disadvantageous to all its participants (hear me out, please, before you explode, Chan!).

Your position, I take it, is that there are economic groups within a culture who stand to benefit by a war, even if the society as a whole suffers economically for the binge. And that they, not being notable altruists, are almost certain to say "whathell!" and either deliberately set out to sell their fellows on the idea of fighting or else blind themselves to, or rationalize, the consequence of their acts. Now of course big business prospers during a war. So does labor. Is labor, too, a pw bloc in peacetime? It's not too difficult to see a reason why business, or labor, or any economic group, should be anti-war. What good will Henry "tremendous accren of producn assets" do him if nobody has the money for downgayments of V-8s onaccounta our war-dislocated economy has postwar-boomed and then fallen flat on its face? And you have also referred (in Efty-five, it was) to war's "tremendous waste of concrete assets", as though that were something altogether desirable to the moguls. Now is it? A lot of this material is wasted in the sense that upon cessation of hostilities it is no longer needed. Unfortunately, it doesn't also disappear at the same time. It is estimated that the end of this war will find our government the owner of some \$102 billion in surplus war commodities. It's pretty obvious that this stuff could hardly be more dangerous if it consisted solely of 102 billion dollars worth of pentrite.

I'll concede, though, that people will do the things that are likely to win them the immediate advantage and regard through a myopic haze of wishful thinking the prospect that they'll pay through the nose for it in the long run. But I'm not at all convinced that the

men who have built up, and who hold the policy-making executive posttions, in our large industries are utterly unrealistic in their longrange planning. Hence the allegation that the money barons manufacture
"fony reasons why the others shud fite" rings in my ears like propamanda for the classtruggle. Not that the T or F of this last is of any
great importance. I think that we both recognize the pursuit of dangerous economic policies is hardly avoidable as long as the economic game
is played entirely by the dog-eat-dog rules presently in use. That's
one of the reasons why'l favor evolution toward a more integrated econcmy.

Consider now my othereason for fower wars: We agree that the cultural differences and geographical isolation between groups of men, which are the only reasons for nationalism, are on the decrease. Since we must satisfy Don Thompson that we're not compartmentalizing economic from cultural considerations, we'll remark that economic factors enter

into our def of what is a culture. We also agree that this cultural with its isolation. engendered fear and distrust of the alien ways, is the direct and essential persuasive to convince men that they should resert to war. Hence my conclusion that the incidence of war should decrease with decreasing c. i. and my belief that it will in the future. We cannot, however, get any data from history on this, because these tanti-war forces haven't been effective long enough.

But there is this consideration: Are our economic acts and their consequences quite independent of the cultural factors? course they aren't. Take your example of our trade relations with Japan during the 30s and tell me why this contributed to bringing on the Pacific War. Doesn't the answer lie in the nature of the Jap culture? Here is a feudalistic state which for centuries was almost completely isolated from and bypassed by the dominant western culture. The rule of the land is in the hands of the traditional aristocracy who readily see that their position is utterly incompat-

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ible with western cultural trends. (!cultimate of containing they see that the only way to secure their position is to dominate Asia and eventually the world. That's why in less than a century they have adopted those techniques of western civilization which, with their population; have made their ration one of the great powers. But their policy has been, understandably, to keep the masses of the Jap people out of contact with western culture. It's the only policy that can continue to produce generations of fanatic fighters who are convinced that their emperor is God and they, the chosen people, invincible. Trade which enables a culturally-isolated people under the thumb of an

cutmoded type of hereditary military/economic aristocracy to build a huge war machine has its obvious consequences. But what about trade which enables a future, really opened-up, Japan to build a modern industrial economy and respectable living standard? In general, if auch extreme cultural divergencies disappear won't most of the economic acts which at present may be accused of leading to war lose their war-breeding potencies or else become impossible? No? Then dig me up some economic situations whose tendency to bring on war increases as c. i. decreases.

"Ere now, wot's this system whereby the British keep the unwilling blacks on the plantations? Surely not slavery or serfdom in the twentieth-century British Empire? Or is it some sort of economic slavery, like that in "Logic of Empire"? This is to me an entirely new aspect of the colonists vs natives picture. So I'll reserve comment until more information is at hand. Tell me more!

If only staticultures may be said to survive, what worth can be ascribed to survival value as a criterion of the "fitness" of a culture? The Bantus would rate better in this respect than would the French. Better it seems to consider that a continuous culture survives even though it undergoes evolutionary change. Yethere's a dilemma here, loo. The Revolution was a major dis-continuity in the French cultural stream, and perhaps it's right to say that the older, mediaevalistic French culture died righthen. But the blenchts which were later to become dominant in the post-rev. culture were already prominent a long time before the actual political upheaval occurred. Had the revolution never come off, these progressive elements would undoubtedly have supplanted the mediaevalism in time, although some features of the latter would likely have survived. The end products would be much alike, but with a discontinuity in one case and not in the other. By golly, what do we mean by "survival of a culture", Praps I should put my original proposition thisaway: French intellectual culture is much less likely to be drastically affected by changes in political philosophy than is the Estadounidense culture, will concede my inability to dig up much direct evidence for this point For one thing, our culture hasn't been put to the test of a really drastic change in government, so we can't be sure what will happen to it, comes the ravolution. My opinion is based mainly on de Sales' observation that our culture is based on a political ideal, whereas the French culture is more of a geographically-centered one.

I won't bother to record here our quibbles over what operations the rules of the game of fours allow. They're all rather pointless now that Creighton Buck has shown us how to write any integer with four fours (or with three fours) by the use of but three (two for three fours) elementary operations.

Some day I must read the Wesley Long stories to see if they are really that bad. Malcolm Jameson once discussed some very practical-sounding techniques for space war. I'd hesitate to eliminate it as a possibility for dealing with the Jovians.

4fellas in our midst actually above the national average? Figuers, pliz? Or maybe I shouldn't ask for that, as numerical data on fankind aren't available. Somebody take a poll, quick! But the list of dogfen is quite imposing, considering the size of what may be considered fandom, and allowing for those who are under- or over-age, or successfully dodging the draft for other than physical reasons. I dunno; do you?

Rockets? Ah! Now, then: Ain't you overlooking the large mass-ratio of fuel to rocket which is necessary to supply the energy to fling the rocket into space? Because of this fact; inescapable with presentlypossible fuels, the factors of airesistance and high acceleration are subordinate, though not negligible, to the imperative of firing off your fuel mass as fast as possible. There something, but not much to the idea of using other means than rocket blast to get a spaceship up thru the lower atmosphere; where rocket propulsion is inefficient. Jet propulsion isn't the answer, either. That's only efficient at high speeds and what you want here is high lifting power, like the early suggestion of a huge, toroidal balloon to hoist the rocket aloft. The atmospheric lifting step would be left behind when the spaceship proper took off from it. Probably it would be just as efficient and a lot easier to blast off directly from the highest practicable mountain peak than to attempt to use aircraft to lift the enormous weight of a fueled rocket. The nub of the matter is that a spaship equipped for atmospheric flight would be much more of an ugly duckling than the worst pipedream of a roadable airplane or a land-going boat. So it's quite useless to speak of using wings for "maneuverability in atmosphere". Until we get an atomic fuel with 100 km./sec. exhaust velocity, spaceships will go up like skyrockets, only more so, and come down, much lighter in mass, by parachute.

Oh, and the O/H ratio for hydrogen-oxygen fuel isn't as high as 8/1. You hafta have an excess of hydrogen for optimal combustion. Hisn't a very practical fuel, anyway; it's too bulky and too hard to liquefy. And wings again: They'd afford no saving in fuel for a rocket drive. You get lift from wings only when you expend energy to move the aircraft; they are not of themselves a substitute for the work that must be done to lift the plane. The only reason for using wings is that they permit the use of power plants, like the internal-combustion engine, which have higher ballistic efficiencies than the rocket because they can expel their exhaust gases at low velocity and hence put more of the fuel's energy content into kinetic energy of the plane and less into k. e. of the exhaust gases.

BLACK & WHITE: Is it an optical illusion that makes the black silhouette look so much larger than the white?

STAR-STUNG: Beautiful mimeo job, neatly bound. And a really blue ink, ever so much purtier than that semi-green stuff I used on the last FT. The poems? Oh yes, (blush), I confess I haven't read 'em yet. I just ain't got no soul, I guess, Willie.

ELMURMURINGS: Oh, so there was a constitutional amendment for that six-month business? Where in Constitution is 1t now?

TEGLERIANA: The CC membership list has some amusement value. Otherwise thistuff is pretty near a totaloss. IQ's definitely low this time. And who can tell what Michelism's all about aftereading Modern Michelist?

MEMOIRS OF A SUPER, FAN: Beathing in the Mailing.

FANTASY AMATEUR: Why don't one or more of the Cosmopolites apply individually for FAPA membership? The club could get the mailings that way without bringing up the anomalous situation of a group's having claim to the privileges of an individual membership. I can do no less than publickly shed a tear at the unceremonious passing of the office of Official Critic. Ever an occasion for quiet amusement and a gratification of my fantasy sense has been the reflection that only in fandom, or a Gilbert and Sullivan opera or a story by Coblentz could such titles as "Chief Critic" and "Associate Critic" exist. Weep. . . . . . Somewhere, somewhen, I've encountered the statement that, with the possible exception of the Australian aborigine, no one race of men can be conclusively shown to be inherently inferior to any other. There are hereditary variations among men but is it valid here to draw an analogy to the differences between heap and the other primates? Apo intelligence and human intelligence are so far apart that it seems proper to say they are not of the same order. Maybe I'm nothinking with my head, here, but the notion of denying human dignity to a race whose geniuses are way above our average and whose morons are no more moronic than ourn is something I can't justify. . . . . . Truly tskable is the spectacle of two-thirds of a mailing straggling in after the official deadline. Yes, you too, Norm!

YHOS: Why you no like chamber music, mugg?

EMERGENCY FLARE: One of the greatest pleasures I derive from fapactivities comes from observing whathe faps find in my own and each other's stuff. That's why I like lots a comments.

TAKE-OFF: The war stuff was overdone. It may be whimsy, but after the firsthousand lines or so it suggests obsession. Mary Helen should otta join the FAPA.

BANSHEE: How many of the "five million Espists" can carry on a reasonably complex conversation in the linguo?

CALIBAN: I voted for Larry, just the same. He's honest. He returned my bribe!

INVESTIGATION: The Unpleasant Possession of Donathan Roag.

FAPA VARIETY: I liked the bit on binding fmz and pros, even though it reminds me how far behind I've fallen on my own bookbinding program. The set of Unknowns looks nice in the photo, but where are the small-sized issues which followed the large ones? Or iszt that you haven't preserved chronological order in the binding? Makes me think of the volumes I bound with issues missing, and that now I have those issues and wonder if it's worth the trouble to tear the books down and rebuild 'em with the missues inserted. . . . . Teluwhat: I'll trade ya four rare issues of the old Amazing Quarterly, namely Vol. 5 No. 4 and Vol. 6 Nos. 1, 2 and 3, for that autographed Weinbaum volume.

THE WORKS: Yeah, but where's the face of the thing?

MILTY'S MAG: I'd hoped to discourse summat on rockets and escape velocity this time. But I've got math. trouble, so it'll have to go over.

VENUS-CON: Hilarious.

TOWARD TOMORROW: Reminds me of its big first issue, which I don't recall that I ever commented on or even acknowledged. I'm sorry about that, Jimmy. It was swell. But to the business at hand: I don't follow Tubby's logic. He compares fen with college students and derives therefrom the conclusion that "'Fans' as a class" are not superior to the average normal adult. Obviously this is non seq. since (a) a considerable part of fen are chronologically not yet adult, and (a) college students constitute a group particularly selected for intellectual superiority. Equally haywire is the argument about artistic ability. Colleges offer art courses, ergo you find a concentration of art talent in the college enrolment. In fandom art is just one of a number of incidentals, and other qualifications, like fantasy sense, are requisite. Perhaps the New York Futurians, as a closely-associated group, weren't typical of fandom, but I remember with a lot of pleasure the Futurian-authored fiction in Norton's, Wollheim's and Lowndes' stefzines. As for the unhygienic fen, I dunno. I've no data, I agree, though, that the practice of hygiene is more important than its orthography.

Ray Karden did right proud with "Born on Earth". I liked the idea of the story and I liked the way it was written.

XENON: Is this still for FAPA distribution or should I have sent in 25¢ for the next three issues? The article on HPL mirrors my own views in some respects.

DIRECTORY OF FANDOM: It fills a need. Let's keep it up-to-date.

READER AND COLLECTOR: Welcome back, Heck! Hodgson's "The Night Land" sounds like just the type of story that interests me most. I don't suppose, though, that such a lengthy work could be considered for FFM. Is the 1912 edition very rare or difficult to obtain now?

there ought to be something killingly funny I could say about the Diskos, "a disk of gray metal which spins in the end of a metal rod, is charged with earth currents and capable of cutting people in two." Since I can't think of anything appropriate, though, I guess I'll just not mention it at all.

FAPA BULLETIN: There appears to be no constitutional requirement that the ballot counters reveal the election outcome at any time.

DECIMAL CLASSIFICATION again: The use of crossed classifications ala solidus could be avoided. I went over this lastime. However, this most recent revision, though arbitrary in scheme, appears to be workable and not too complicated. So if it's adopted without further changes, it'll get my blessing.

FAN TODS: What was that about more legible reproduction?

AAGH!: Will someone with a passion for enumeration take a count and confirm my suspicion that Suddsy's interpelations run to greater wordage than do the chain letters themselves. Rosebud forever!"? The Grake Liebscher should read "Where Their Fire is not Quenched", ghostory by May Sinclair, for the strict lowdown on this. Non-rodeers should get their edification from Laura Jean Libby. There's an awfulet of Japanese people. We can't win the war and then go around not giving a damn for them. We'd just be asking for it again a quarter-century hence. The main reason Germany got a chance for another bid for worldowination was

that too many Germans believed they were treated unjustly by the Allies and too many Americans and Britons agreed withem. Our Immediate goal in the Pacific War should be to put a formidable army of occupation in Japan itself and to depose the war lords. For all its industrial and military might, Nippon is socially still in the Middle Ages. The vast majority of its prople have no true tonception of western culture. We will have to change that. The results when the Japs wake up to the fact that their emperor is not God and that they are not invincible may be surprising. I'll wager that the army of occupation will find more to do than just parade around flexing its muscles.

DB: "Rust" was by Kelleam, who may be Kenealy in disguise, though I doubt it. The Direct-ory lists Kelleam, but not Kenealy (WD please note!). The idea of an ultraconservative USSR is interesante. Think what a beautiful example of hidebound bureaucracy the Communist Party system there might become!

"T'hell with masses." Hera we go again. You simply can't ignore 90% of the world's population, Suddsy. You intelligentsia have to live with these people and deal with them, be they ignorant or enlightened, stupid or brilliant. I consider the notion of an outright aristocracy of brains suspect for the following reason; The genius is still a man. As such he is not above human foibles. As one who has ashieved eminence in some particular field of human thought and endeavor he is, far more than the ordinary man, subjected to the suggestion that he is equally qualified to speak or act with authority in fields outside his own sphere of specialization. Unless he is quite beyond vanity (which is improbable) he is likely to have his sense of values more or less distorted by this viewpoint. And what is worse, few will stand forth to gainsay him. Remember Gamble in "Three Thousand Years!"? Or if you want an example in realife, take the mathematical philosopher, Bertrand Russell, who has distinctive ideas on ethics and morals which, apparently, he believes in with all his heart. Unfortunately, as experience has shown, they'd work swell if we were all urbane supermen with a few million years' more evolution in our germ plasm, they'd work middling smart well if we were all Russells, they'd turn our society topsyturvy if let loose among us brawling prinitives. I ask, therefore, if BR should have any more say in such matters than he has right now? Now don't get me wrong. I'm heartily in favor of having things run by the best minds we can muster. But their authority should be exercised with-in the scope of their ability and experience qualifications. I think a government administered by the best executive talent we can get and educate for the profession and appoint/retain on a basis of merit/results would be far superior to any administration electable under the present system by vote of a populace subject to bonditioning by axe-grinding political propagandists. A non-partisan system of referenda with votes apportioned to groups and individuals on the basis of the stake they have in the issues would insure that any inequities could be resolved by democratic process. With competent administrators, occasions for its use would be rare.

Look up Willy Pan nextime you're at Swishers', Sud-dsy. He's worth it!

LA VIE ARISIENNE: Clever title. Affairs like this and the Stforum and the Strangers are the bestype of local organizations.

AGAIN-BITE OF IN-WIT: "The Horror out of Lovecraft" is a perfect parody.

THE NEW HIEROGLYPH:

ARCADIA: I know how I feel when other fen ask me to write stuff for their fmz (fortunately they don't very often), so I don't go around asking for contributions for Efty. Any mss! that come in unbidden, though, are received with boundless gratitude and are published, if interesting enough... What happened to the bountiful Mr. L.???

FAN-DANGO: Sure I had to give Donnie a cred for that capa stuff. Read the constitution! Were you familiar with the way activity credentials are recorded by the S/T you'd see that giving you the credit for the stuff would make no change at all in your record, since you had other material in the same mailing. And Donnie would still get credit for his unwitting contributions to Fan-Dango 3A, since he is a member, they were substantially his work, and they were sent out in a FAPA mailing. By the same construction the first CCCommentator was a contribution, too. If you consider the constitutional provisions unsatisfactory, by all means work to amend them. But let's not start distorting the rules simply to score a dubious point against someone we don't like. That way lies chaos.

The fen vs. fans controversy grows ever more amusing. TBY's remarks are the funniest yet.

The activity requirements, it appears, have, by a one-vote majority (a veritable landslide for FAPA!), been upped hard. A year hence and we shall see. . . . . I think that it's man, and not just his environment, who'd have to be improved if the desire for alcohol were to be eliminated. People will drink ar long as alcohol can create the illusion that a dull time is a rare occasion and that banalities are sparkling wit. . . . .

## censored! /

.... We're neither of us 'real old timers', Fran.

I think you'll find a lot of intelligent people who like ASF and have no interest in amateur journalism. The Campbell-regime articles impress me as pretty close to unique in the field of science-re-porting. They are at least on a level with those in Scientific American, which is the only worthwhile popular scientific publication that I know of, and furthermore show more of the off-trail slant than do those in SA. As Willy Ley puts it in "Rockets": "This maga zine [ASF], although classified as a 'pulp,' carries quite a number of articles by professionals, dealing with matters somewhat outside the scope of professional journals." Textbooks are sources of particular information; as such they are seldem suitable for general cultural reading. science books as a class are no better and no worse than ditto articles in magazines. While for the latest scientific developments you don't You read the journals of your particular field. read books, nohow. And just show me the lay reader who can get anything out of, say, the Journal of the American Chemical Society.

Brave for your on the whole objective discussion of the question of racial interpreeding.

MEIN STUBPF: Ain't this a violation of the Smith-Connally Act, or something! Maybe I should campaigned more actively. Norm for Vipre in '45!

HISTORY OF THE STEFUTURE: Four thousand cards! Do we each get a filing cabinet when they're all published?

SHAMGRI-LUNA' FFAIRS: Not enough curvature.

SO SAARI: What for? 'Sgood: I don't get your objection to Speer's three-dimensional time, though. He uses his coordinates to locate regions in time. Cartesian representation, of course, is geometric symbolism, but the entities so represented needn't be geometric. You can plot temperature, pressure and volume in cartesians just as readily as length, width and height. While Jack hasn't attempted to do so, there seems no reason why suitable scales for measuring his temporal variables couldn't be worked out and used to plot specific points in time. And you can define coordinate systems in N-dimensional space by means of N mutually orthogonal vectors and this constitutes a logical extension of cartesians and can be dealt with mathematically. Such a "space", of course, belongs purely to the realm of ideas, but you can investigate its properties even if you can't imagine what it looks like.

EN GARDE: Temme! Another nomenclature! Chums, I see the handwriting on the wall.' There can be but one outcome of this mad scramble: Each and every fan will eventually wind up with his own private terminology. So I might as well break down now and advance my particular version... Naturally, since I am already committed to the preservation of the term "fan" and the upholding of the sacred plural, I cannot but regard the question of a suitable general term as other than settled for all time. I do believe, though, that we are badly in need of some concise terms for the various races of the fanny tribe. Consider, for example, our speculative geniuses who enliven the mailings with their whitherings. What better description could be found for them than "thinkers with extrapolated ratiocinative processes"? True, that's a longish expression, but nobody would ever use it in any but the concise abbreviated form, so what matter? Again, our literati, the avid readers and collectors of stefantasy, what are they but "devoted readers of outre literature"? This is also readily abbreviated, as is my final example descriptive of those exalted individuals, the total fen, or "gentlefen of oogy personalities".

Yes, you really ought to study math., Al. An intimate acquaintance with its manifold ramifications gives one no end of an advantage. Why just think of all the cusswords you can derive from those esoteric realms and apply when ordinary opprobrium fails you! Such as "By the first differential parameter of Beltrami!", or "Well, I'll be a homogeneous bilinear form:", or "O, thou partial derivative of an automorphic function!"

THE FAPA FAN: Shall we cry in each other's beer, Don?

THE PHANTAGRAPH: There is this approach, too. If you feel you're missing something by not reading a certain work, get that book and have a look at it. If, after you've read a little and maybe browsed a bit, you find you're getting neither entertainment nor value from the effort, take the book back to the library.

BROWSING: I remember "A Mirror for Witches" with considerable pleasure. The sarcasm was a high point, but I also got the impression that the witch-hunters didn't act illogically in the light of their factual knowledge and the beliefs of their time. In those days the supernatural world was real.

WALT'S WRAMBLINGS: Where didya get the white ink, Walt? Circle Supply Depot?

bibnote: "Little-Rosebud's Lovers, or a Gruel Revenge" -Laura Jean Libby