

C1 – A Collection of Connected Concepts

Dear: In my “meditation” scheme, with ‘A’ I try to stimulate myself to be aware of my environment, and with ‘B’ I try to stimulate myself to be aware of my thoughts, especially thoughts about my prime goals. ‘C’ is different: it’s a collection of a number of different concepts (reminding myself to be “careful of confused thoughts”, the “connectedness of opposites”, etc.), maybe with the main connection being only that so many C’s appear! For this chapter, consequently, I think I’d better change the format.

For what follows, first I’ll show you what I review for ‘C’ (I’ll put what I review in italics), and then after each concept (or some grouping of concepts), I’ll try to explain what I mean, starting with:

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There is a collective consciousness going on.

That concept summarizes my awe at how much we owe to our ancestors – how much we’ve inherited. Dear, think about some of what we usually take for granted: our language, letters, the system that taught us how to write, everything written, ideas, a system in which we can govern ourselves, mathematics, music, spacecraft, spoons...

Spoons? Yes, spoons! If you, too, become overwhelmed by how much we’ve inherited, then think just of spoons. Could you make one? I couldn’t – well, maybe I could make one out of wood (if I had a knife – or at least a good sharp rock). Think of the thousands of years it took to learn how to melt certain rocks (do you know which ones?), then to shape them into such “handy” utensils, and then to perfect the techniques, not only to mass-produce them but also to blend the ores to yield stainless spoons. And how many thousands of miles do you need to travel to find such a wondrous instrument as a spoon? To the neighborhood store, where there are thousands on display, courtesy an astounding distribution system.

Each of us should start every meal by giving thanks not to some god (“saying grace”) but to all the producers who provided us with so much. For example, how about: “Thank you, one and all: you who have produced and provided us with so much – such as these spoons!”

And then, Dear, please think about computers, quilts, and quantum mechanics! Oh, sure, there are dregs of our civilization also (which I'll not yet dig into), but there are two other ideas that I wish you'd also consider. One is: *there's a collective consciousness going on*. And the other is the following thought, created by someone whose name I've forgotten. If I searched for a while, I'm sure that I could find the author's name, but "Does it really matter?" (which is the title of another one of Alan Watts' books): the author is now dead, and his or her thought is now just another part of our collective consciousness. The thought is this: "[The only way to repay our debts to the past is to put the future in debt to ourselves.](#)"¹

What a wonderful concept! Dear, please consider it carefully: "The only way to repay our debts to the past is to put the future in debt to ourselves." I dearly hope that you'll adopt this concept for yourself – and thereby, for now, do the very best that you can in school and university. And, Dear, if you don't yet see how you can put the future in your debt, don't worry about it: it'll come. For now, just learn as much as you can: learn how others made computers, quilts, and quantum mechanics – as well as spoons! Eventually you'll see where you can contribute to helping the collective consciousness go on.

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I'm the crowning achievement of Nature's consciousness, but we're all cousins, struggling to survive.

I trust you understand my meaning for "I'm the crowning achievement of Nature's consciousness" – I don't mean that I'm particularly intelligent! It's another way of saying that we are the universe "I'ing". And at least in this part of the universe, we humans are the crowning achievement by which nature can experience herself. But I should explain that there are two meaning for "we're all cousins" – and I mean both.

¹ Dear: In case you are dissatisfied by my failure to identify the author of that expression (for example, in case you want to honor the memory of that author), then let me mention that, what I wrote is a slight modification of the phrase that Governor General John Buchan (1875–1940) used in speech on 12 May 1937 to the Canadian people: "[We can only pay our debts to the past by putting the future in debt to ourselves.](#)" His statement was possibly influenced by Shin-eqi-unninni (or Sîn-leqi-unninni) of Babylon, who wrote in his version of the *Epic of Gilgamesh* approximately 3,600 years ago (in which I've added the italics): "[Choose to live and choose to love; choose to rise above and give back what you yourself were given. Be moderate as you flee for survival in a boat that has no place for riches.](#)"

First, all living things are our cousins: even the plants and animals are struggling to survive. In fact, there's more. I've forgotten the details now, but if you'll investigate them, you'll find that they're amazing: not only are the genetic codes of animals almost the same as ours, we differ from trees and other plants only by a few nitrogen and other atoms in our DNA! Therefore, the plants and animals truly are our cousins, and when I say this line in the desert, I speak to all of them.

My second meaning for “we're all cousins” is to remember my kinship with other humans. And I don't mean just that everyone is more closely related to me than as 50th cousin. I mean that I understand what is driving each one of them: they're struggling to achieve their trio of prime goals (survival of themselves, their extended families, and their values) – even if (I'm sorry to say) that, in a huge number of cases, their thoughts are confused about how to survive and their values are misguided (details of which I'll show you, later in this book).

And by the way, Dear, there's power in this knowledge of what drives others, just as there's power in most knowledge: if you understand what's driving others (their values and how they pursue their survival), then you can better understand and predict their actions. For example, as I'll show you later in this book, you can better understand why some people “believe” in god (any god) and why others don't.

Now, Dear, I'm sorry to relay this to you, but for completeness, I should mention that I did try to transform some of the above ideas into a “poem”, which is even worse than “usual”. It follows, but you may want to skip it! If you do read it, be aware that I wrote it more than 30 years ago, during the coldest of the cold war, when the outlook for the world was even worse than it is now.

CONSCIOUSNESS

“The end is near,” or so some state,
 In “righteousness” they fan the hate.
 Still others shrug, and sit and wait,
 (For, to it all, they can't relate)
 While missiles move at fright'ning rate.
 Perhaps our time is waning late,
 But some still work to change our fate.

Oh stupid humans, such a mess
Of gods and wars and brutishness,
And those who seek to work at less,
All buried in their pettiness
Of simple thoughts and fancy dress.
Yet some are wearing, nonetheless,
The crown of Nature's consciousness.

Just think of lives the fools have gored:
The Jews were led by their warlord,
The Christians burned the heathen horde,
The worst in evils Nazis scored,
While Shintos killed with sacred sword,
And still for Islam blood is poured,
And all build bombs they can't afford.

Each side is buzzing like a hive,
And onward, lesser leaders drive,
While sullen workers just contrive
To find new ways to stay alive.
The most of pleasure they derive:
To win at struggling to survive.
And so for all! And all could thrive!

Oh stupid humans, can't you see?
It's not the way it has to be.
This way is pure insanity.
A little thought will set us free:
We're all related, distantly,
We form a fifty-cousin tree
With roots in common ancestry.

But all who went before weren't fools;
There's some who didn't think like mules;
They worked to fill the knowledge pools;
They left us what we learned in schools,
Built bridges and new molecules;
Just think who made our common tools!
Let's join with them and set new rules.

When Nature made her human pawn,
The spark of thought began to dawn,
And though it's dim, it's not yet gone:
Let's focus on the brains that shone,
Let's transfer right away from brawn,
Erase all lines the fools have drawn,
And help our consciousness go on.

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So far, Dear, I've reviewed only two thoughts, which take me less than a minute to review when I'm walking. Immediately below are the next few thoughts that I review. Some of these are more personal than the first two; they focus more on some of my inadequacies that I'm trying to correct; therefore, I won't explain them in much detail.

*Don't be afraid of confrontations;
Have the courage to change;
Be careful of confused thoughts:
capitalize on confusion (for example, cloning).
Be careful of connections;
Be careful of chemicals.*

The first of the above-listed ideas – that I seem to try to avoid confrontations (though others may disagree!) – seems to be a weakness that I perhaps derived from being the youngest of five children: at quite an early age, a child can learn to avoid confrontations with older children, especially if older and bigger brothers have tendencies to settle arguments with their fists! I have the impression that you, on the other hand and as the oldest child, don't shirk from confrontations – although I'm certainly pleased to notice that you don't “get physical”!

As for the second – having the courage to change – it's a topic important to everyone and a topic to which I'll repeatedly return, starting in Chapters **D**, **E**, and **F**, respectively dealing with Decisions, Evaluations, and Fears. Here, to begin, I want just to introduce the idea of “expected value”. To that end, please consider an important point made by someone who I've had difficulty identifying. (You'll probably encounter the same difficulty if you search on the internet.) Whoever the author was, the point was well made:

Life is change. Growth is optional. Choose wisely.

In turn, to “choose wisely”, it's important to develop skill in evaluating options, for as James Belasco and Ralph Stayer wrote in their 1994 book *Flight of the Buffalo*:

Change is hard because people overestimate the value of what they have – and underestimate the value of what they may gain by giving that up.

For example, in the case of a potential confrontation, there is some value in choosing to proceed with the confrontation and another value in choosing to avoid it. Similarly, in the case of any change (choosing a companion, deciding to marry or get divorced, choosing a university or a career, etc.), some value can be associated with each possible choice. Meanwhile, fear is frequently caused by uncertainties, and in such cases, courage can be gained from gaining knowledge, e.g., of relative values. Consequently, in many cases a good way to develop “courage to change” is to develop and apply skill (or wisdom) to realistically estimate relative values.

In many cases (making decisions more difficult) the comparison of the values of different choices can seem like comparing apples and oranges (i.e., the problem of “incommensurable” values, viz., “lacking common qualities necessary for a comparison to be made”). In many if not most cases, however, progress can be made as follows. The procedure is to assign a monetary value to each choice – even though you may initially consider such a procedure to be insensitive or even mercenary! That is, one’s right brain can usually (and rather amazingly) synthesize all the disparate features of each choice and conclude, for example, “I’d pay a million dollars if I could...”

Usually, however, one’s right brain (or, at least, my right brain!) has a tendency to exaggerate. Consequently, many times, it’s appropriate to engage one’s left brain in some haggling, e.g., “Oh, really? Well, would you do it for \$500,000? How about \$250,000?...” From such haggling, I’ve found that I can usually arrive at monetary value for each choice, values with which both sides of my brain seem satisfied!

To determine the “expected value” of each choice, however, requires more thought. In addition to estimating the values of outcomes, one needs to estimate the chance (or probability) that each outcome will occur (or materialize). Such probabilities are most usefully given as numbers, ranging from zero (meaning that there’s no chance that the outcome will occur) to unity or 100% (meaning that the outcome will certainly occur).

As an example, suppose the left- and right-hand sides of your brain came to an agreement (!) that going steady (or whatever “initiating a committed relationship” is now called) with a certain person (say A) would have a value to you of $\$V_A$ (e.g., \$500,000) and that going steady with person B would be worth $\$V_B$ (e.g., \$300,000). Then, to determine the “expected value” of each case, you first need to estimate the probability that each case would

occur. Thus, suppose that you estimated that the probability that you could go steady with person A to be p_A (say 10%) and with B, p_B (say 50%). Then the “expected value” of your going steady with A, $\$E_A$, is its value, $\$V_A$, multiplied by the probability that it would be realized, p_A (i.e., $\$E_A = p_A \times \V_A) and similarly for the expected value of going steady with person B. Then, once the expected values are calculated, a comparison becomes available from which your decision can more easily be made.

In the case of the numerical values used as illustrations above, the expected value to you of going steady with person A, $\$E_A = 10\% \times \$500,000 = \$50,000$, whereas the expected value of going with person B, $\$E_B = 50\% \times \$300,000 = \$150,000$. So, the result tells you (if the numbers are realistic!) that your choice of trying to go steady with B has three times the expected value for you, compared with your choice of trying to go steady with A.

But if you didn't follow what I just finished writing, Dear, if you followed it but don't agree with it, or if you followed it, agree with it, but don't see how to apply it “in the real world”, then don't worry about it, because later in this book, many times, I'll be returning to the challenging task of making decisions. As a summary, let me just say that, both ‘wisdom’ and ‘courage’ usually reflect, in large measure, one's ability to make realistic estimates of expected values. That said, I'll now move on to the next item in my “C-list”, namely, “be careful of confused thought.”

When I'm walking, when I remind myself with “be careful of confused thought”, I almost always review two particular cases (one dealing with sex and one dealing with my frequent thoughts of changing career), but these two cases are so personal that there's probably little value to you in my going into details – even if I were willing to! Instead, let me urge you just to try to analyze your own thoughts, identifying where you might have engaged in confused thinking. And when you do identify instances in which your thinking was confused, Dear, maybe you should “flag” such ideas – so you won't waste your time and energy reanalyzing the same predicaments.

Also, I hope you'll consider an important concept dealing with confused thought, an idea developed more than 2300 years ago by Aristotle and recently “repopularized” in one of Ayn Rand's books (probably *Atlas Shrugged*), namely: there's no such thing as a paradox. I'll go into this concept in detail in a later chapter; for now, Dear, please just briefly

* Go to other chapters via

<http://zenofzero.net/>

consider Rand's recommendation: if through sound reasoning you reach a paradox, then check your premisses; one of them must be wrong.²

In the above list of “C-ideas” that I review while I’m walking, the idea “be careful of chemicals” reminds me that certain thoughts seem to “start the chemicals flowing” in my mind. For example, if something has depressed me, then when I consider other concepts, they can depress me even further. And I suppose the opposite also occurs: when I’m happy about one thing, I start looking on the bright side of everything – a development that I’ve never worried about!

Another example, with which I’ve found I must be especially careful, is anger: when something (usually some stupidity) has angered me, I then find anger flooding into my thoughts about almost anything. It’s as if the chemicals involved in my thought processes (for, when you get down to it, all we are is just chemical processors!) diffuse out to influence other thoughts. And worse, it’s as if my mind is a nonlinear chemical system, with strong “positive feedbacks” (that is, as more occurs, even more is stimulated) – which I wouldn’t be surprised could easily lead to mental instability. But I’ve found that I can stop such feedbacks by repeating: “Be careful of confused thoughts; be careful of chemicals.”

Connected with “be careful of confused thought” is *Capitalize on confusion (for example, cloning)*. This is an amalgamation of other thoughts, some already presented, but it contains another concept that I’ve found to be worth emphasizing. Thus, I’ve already reminded myself of “be careful of confused thought” and in my mind is another thought that I’ll show you that I review, “confusion is needed to reach clarity”, but the new thought is this: “seek out confusion; capitalize on it.” Similarly, Dear, if you’re confused by something, I encourage you not to ignore it; instead, pursue it, until you understand it. When you finally do, I’m certain you’ll be pleased (i.e., it’ll give you a “pleasurable” survival signal).

I sometimes remind myself of a particular illustration of the idea to “capitalize on confusion” with “for example, cloning”, because this particular example reminds me of something else – which I’d now like to show you, because the new idea may also help you. What confused me is

² Dear, I know that the usual spelling of ‘premiss’ is ‘premise’, but I prefer the British spelling, in part because ‘premise’ can be so easily mispronounced (emphasizing the “pre” rather than the “miss”) and can be so easily misread (miss-red!) as ‘promise’ (which also, of course, shouldn’t emphasize the “prah” but the “miss”). Consistently, I’ll be spelling the plural of premiss as premisses (rather than premises). Thereby, maybe you’ll be able more easily to read: What premisses are found on these premises?!

one more “set-up question” from your grandmother (she seems to enjoy confusing me). One day, seemingly “out of the blue” she asked me if I would be interested in being cloned. I responded “No.” She then responded: “Why not? For someone who’s always talking about survival, cloning would seem to be ideal!” So, I was confused. Your grandmother seemed to have trapped me in a paradox.

Yet, as Aristotle and Ayn Rand said: “There’s no such thing as a paradox; if you reach a paradox through sound reasoning, then check your premisses; one of them must be wrong.” So, pursuing my confusion, I first re-examined my premisses. One of them was my hypothesis that we all pursue our trio of survival goals (of ourselves, our extended families, and our values); I saw (and still see!) nothing wrong with that premiss. Another premiss was that I had no interest in being cloned; that, too, seemed to be firm. (Dear: do you have any desire to be cloned?!) So, then, if the premisses are sound, and if the paradox persists, there must be an error in reasoning – or in some hidden premiss.

This called for some thought. First, “I” inquired of Left Brain why “I” wasn’t interested in being cloned. The first obvious response was that “I” wasn’t interested because “I” couldn’t be cloned. Maybe my Body could be duplicated, but my Body isn’t “me”! It’s part of me, but it wouldn’t be possible for “my clone” to have experiences identical to mine. How, for instance, would my clone duplicate my experience of drawing the curtains in our house when I was a kid during WW II, when the siren sounded to alert us to the possibility of a Japanese invasion? How would my clone duplicate my feeling when I was six or so, while my brother and I walked with my father to see him off on the ship, he told us that he and our mother “were having troubles” and that he wouldn’t be returning? And so on, for a thousand and more other “for instances”. That is, I’m more than just this genetic code; in fact, if push-came-to-shove, I’d say what really is “me” is not my genetic code but the memories, ideas, emotions, values... in my mind. So, it seemed that maybe what was wrong was the previously “hidden premiss” that I could be cloned.

But suppose future science solves current limitation on cloning. Suppose, a thousand years from now (or a million years from now, or whenever), an “I” could be exactly cloned, cloning not only Body but also Mind. (Who knows how it might be done, if ever, but suppose that some “imaging technique” could be developed, with which all electrical and chemical properties necessary to completely reproduce a human could be projected into a “new

and improved clone”). My response: I still wouldn’t be interested! And of course “I” then asked Left Brain: “Why not?”

And of course a huge number of responses flooded my brain. Foremost was this: even a “new and improved clone”, who had all my memories, feelings, and so on (i.e., even if he were given my past), wouldn’t be me, because he wouldn’t have my future! That is, as soon as my clone occupied a different part of this universe from the one I occupy, he would begin encountering experiences different from mine – and would therefore evolve differently. Stated differently: even if, for an instant, he were exactly the same as I, from then on, he would be someone else. Stated still differently: I can’t be cloned, even by a “new and improved clone”, because I’m unique – not only in my past, but also in my future (that is, in my potential). So, again, it seemed as if the error was the hidden premiss that I could be cloned.

But accepting that I’m unique, not only because of my past but also because of my future, and even contemplating the possibility that this “new and improved clone” would have a future “better” than mine, I was still completely disinterested in the possibility of being cloned (save as this intellectual exercise). What would be the point? If my clone had a strawberry milkshake, “I” wouldn’t enjoy it – he would! And besides: it’s not that this particular body and this particular mind are so astounding that the world needs another! If the truth be known, I’m sorry to report that this world would have managed to muddle along just as well without even this one version – save, of course, for the existence of certain grandchildren whom I know and for whose existence I claim some credit! In contrast, if Einstein could have been cloned, then almost certainly humanity would have benefited. But anyway, the whole concept of being cloned left me cold.

So, I continued to be confused: something still seemed wrong. How could I accept the conclusion that one of my top priority goals was to help these genes go on, and yet, I was clearly completely disinterested in being cloned, which otherwise appeared to be an astoundingly good opportunity to help these genes go on? Eventually, on another walk in the desert (the advantage of which is to minimize distractions), the error “I” found was not necessarily in my premisses but in my reasoning, namely, in all those “I’s” – erroneously thinking that “I” is just the part of me that does all the thinking! That is, I had neglected to convene all my Board of Governors.

To show you what I mean, let me review “my” objectives and focus on the concept of cloning. Thus, “I” had concluded that my Left Brain’s prime

goal was to promote its values – and certainly one of my most important “values” is continuing to survive! That is, any other value (such as clearing up this confusion, or solving a math problem, or...) requires my survival; therefore, my survival is certainly a high priority goal of my rational thoughts. Now, if my “new-and-improved clone” had an identical Left Brain, maybe the rest of the world might conclude that one version of me was just as good – or just as bad – as another, but as far as this Left Brain would be concerned, it has no doubt that there is only one important version of it – and it’s the one that wants to survive. The only reason my Left Brain might be interested in having a clone is if that clone was prepared to help me survive – but that seemed rather unlikely. I could imagine the clone saying: “Hey, who needs him – and even if we want still more of him, they’re easy to make!” So, again, my Left Brain wasn’t interested in being cloned, because it saw no survival value for it in being cloned.

And the same conclusion seemed appropriate for Right Brain: it “feels” nothing emotional about having a clone. If my left-brain’s analysis was correct that Right Brain’s prime goal is to enjoy (“If it feels good; go for it!”) – which, again, is its way of saying it wants to survive – then “I” felt nothing especially good (or, for that matter, nothing bad) about being cloned. Of course, if when he ordered a strawberry milkshake, I would get the taste and he would get the fat, well then... Anyway, Dear, trying to understand my feelings didn’t clear up my confusion.

Then there’s Body (or “instinct” or “the animal within” or *l’autre moi* or whatever “it” should be called), and that’s where some light began to shine. Obviously my Body “wants” a great number of things, and its priorities shift depending on what it already has had and how long it can continue to function without having its other needs (or demands!) satisfied. It wants air, water, food, the temperature to be within a certain range, and so on, and when such necessities as those are met, it wants a lot of other things as well (such as sleep, exercise, for pains to stop, and so on).

As I described in **B**, Left Brain had concluded that certainly a high-priority goal of Body was to survive (for example, it has this propensity to want to breath!), but Left Brain also concluded that the only way that one “outlier” data point could be fit – the data demonstrating that sometimes humans “instinctively” sacrifice their lives for others (especially their children) – is to conclude that Body’s prime goal was to help its genes to continue. That’s consistent with sacrificing your life not only for your children (whose genes would normally continue longer than yours) but also with sacrificing your

life for a group of strangers (100 or so strangers, if Body is any good at math!), in an “act of heroism”.

But then, what about cloning from Body’s perspective? Well, my Left Brain’s conclusion was rather abrupt, to wit: Body doesn’t know anything about cloning! It “knows”, for example, when it’s thirsty, but it doesn’t know anything about DNA molecules, except (truly) instinctively. It “knows” to try to save its children, because those animals that didn’t “instinctively” learn this lesson no longer exist. There is obvious survival value for the genes if a parent will make “the ultimate sacrifice” (provided that the child is old enough to survive without the parent, provided that saving one child doesn’t jeopardize the survival of other children, etc.), but meanwhile, there’s nothing instinctive about cloning: Body doesn’t have the faintest idea about what Left Brain is talking about! “Body” or “Instinct” or whatever-it-should-be-called doesn’t deal with abstract things (such as words!); it’s on “autopilot”, programmed by evolution.

One of my reasons for going through all this, Dear, is to illustrate my recommendation to you to “capitalize on confusion”. That is, I encourage you to keep trying to understand, until the confusion leads to some new clarity. In this case, the new clarity I gained was the following.

First, I should improve my description of Body’s prime goal: rather than say that Body’s prime goal is “to help these genes go on”, maybe I should say that Body’s prime goal is “*instinctively* to help these genes go on”. [And, of course, Body has a huge number of lower-priority goals, such as getting air, water, food, sleep, exercise, etc.] Further, my Left Brain needed to understand that any such re-wording of Body’s goal is totally irrelevant (as far as Body is “concerned”), because Body doesn’t deal in words. Evolution has put our bodies on autopilot. For example, this body’s goal isn’t to have children; it’s to have sex. Evolution has arranged that those animals that don’t want sex are no longer here (save, I guess, for some amoebae that have worked out a different way to reproduce).

Second, I saw that at least this particular Left Brain really isn’t very interested in the survival (or propagation) of my genetic code. I suspect the same is true for many other people. Stated differently, my Left Brain really isn’t very interested in having children (or clones) – unless rational thought suggests that the children will help me survive (which is the case in many agricultural-based societies). Certainly “I” am interested in sex (as most humans apparently are – maybe especially the male variety), but that’s

mostly “Body talk” (i.e., it’s the animal in us). Also, no doubt my Right Brain adds: “if it feels good, go for it!” And I know that, on occasion, this left-brain’s analysis can lead to the question: “What about having another child?” But normally, at least for this particular Left Brain, having children is not a subject of much significance; certainly it never was this Left Brain’s prime goal.

Third, I got a glimpse of Right Brain’s enjoyment in children and grandchildren. Although I would get no pleasure in watching my clone devour a strawberry milkshake, and although I doubt if you remember the incident, I remembered the pleasure I had with you, at the local airport, eating ice cream cones, watching the planes take off. With a clone, I would know pretty well what his future “flight plan” would be: I know the limitations of his engine, the lifting capabilities of his wings, the air worthiness of the craft, the crudeness of his instruments, and so on, not to dwell on the incompetence of the pilot! With you, in contrast, my imagination takes flight. What limits to the heights to which this child will carry these genes? There has never been such a child in the history of the world! After a Nobel laureate in Physics and stints as university president and head of NASA, then... That is, the difference between a clone and a child is greater than the difference between a single-engine Cessna and a Saturn-V rocket; it’s the difference between drudgery and hope.

Fourth, and most importantly, once again I saw that Left Brain is capable of being the “big boss”; that is, it can over-ride Body. Body may be on evolution’s autopilot, but Left Brain is the pilot and can switch off the autopilot. Examples range from an athlete’s “thoughts” that “psych” Body into performing better, to a left-brain’s analysis such as: this available sexual activity should be avoided, considering the threats from sexually transmitted diseases, emotional entanglements, the possibility of unwanted children, a promise not to engage in extra-marital affairs, or whatever.

Further, Left Brain’s analysis can override Right Brain’s emotions – though not without difficulty – especially for people such as I who never scored very high on the “self-discipline scale”! For example, with difficulty, sometimes you can “think your way out of sadness” (e.g., by seeing, with analysis, that threats to your survival aren’t so bad as Right Brain had synthesized), and maybe you can even “think your way out of hate” (by trying to see, with analysis, why the other person behaved in a particular way). For some strange reason I’ve never tried to think my way out of love or happiness! Thus, Dear, I came to the conclusion that we human animals

are really quite amazing in that our Left Brains (our analysis capabilities) can “call the shots” – albeit sometimes with great difficulty.

In addition, I saw that in some cases, rational thought can override even Body’s willingness to sacrifice itself to protect it’s offspring (some children aren’t worth the sacrifice, sometimes Left Brain will decide that it’s more important to stay alive to help the other offspring, and so on). That is, Left Brain makes choices, based on its sense of values (which in turn and in general, have meaning only when measured against some objective), and in some cases, pursuing a chosen value can be our prime goal, overriding our dual survival goals. Therefore, my prime goal was the preservation of whatever my Left Brain decided was most important – which then required further thought.

Thus, one cause of the “paradox” of why I’m not interested in being cloned is because of the error in the hidden premiss that “I” could be cloned. I’m not just my genes, thoughts, emotions, memories, etc. but also my future (my “potential”). Therefore, since no clone who occupied a different portion of this universe would be me, I wasn’t interested in being cloned – because I couldn’t be! In addition, there were errors in my reasoning. For one, I had misunderstood the meaning of ‘I’. Also, I had overlooked the importance of hope: hope is an extremely powerful emotion, a way that Right Brain “sees” the future; I saw the wisdom in someone else’s left-brain summary that “to hope is to be human”; also, I got a glimpse of the dangers of burdening our children with our hopes, a burden that even our own clones couldn’t carry.

Further, I saw my error in identifying sources of my goals: my goal of helping these genes go on is an instinctive (Body) goal, not necessarily a rational (Left Brain) goal, and on occasions, my Left Brain sometimes identifies higher priority goals. Stated more generally, the prime goal of most humans is not their own survival or the survival of their extended families, but the preservation of their values. Yet, as I began to show you in **B** and I’ll show you in detail later in this book, in general the only rational goals for our values is our dual survival goals (of ourselves and extended families). Unfortunately, though, as I’ll also show you later, many humans have demonstrated amazingly confused thoughts about the goals of their values, leading them (for example) to drink poison, willingly be crucified, accept being eaten by lions, strap explosives around their waists, and so on.

But my purpose, here, is not so much to remind you of my conclusions about human goals but to demonstrate to you the value of “capitalizing on

* Go to other chapters *via*

confusion”. Thus, Dear, don’t say: “Damn [or whatever phrase you use to express depression] I’m confused.” Instead, say: “Good [or “Great” or whatever expression you use to express elation] I’m confused!” Also, don’t accept anyone else’s conclusion (listen to others, in case they know something of value, but accept no one’s conclusion except your own).

Further, Dear, if you’re confused, jump on it, wrestle it to the ground, and keep at it until it hollers “uncle”! Keep trying to understand, until you’ve transformed your confusion into clarity. I guarantee that clarity will eventually come, if you just refuse to accept confusion. If you continue to refuse to let confusion remain undisturbed in your mind, then (quite possibly when you least expect it) you’ll get an “Ah-hah moment!” – a Zen enlightenment! That is, all of a sudden, your confusion will click into clarity (possibly courtesy your Right Brain), and in the process, you’ll learn something new. And the more confused you were, the less likely you’ll ever forget what you’ve learned.

.....

Finally in this collection of Cs, there’s the “big one” (i.e., the most important one):

The connectedness of opposites.

When I’m walking, I spend most of the rest of “C” reviewing examples of the concept of the connectedness of opposites (or “the complementarity principle”), as I’ll illustrate, below. First, though, I’d better explain what the concept is, especially since it contains some of the most profound wisdom I’ve ever encountered. It’s the essence of Daoism (also spelled ‘Taoism’). The source of this wisdom is lost in antiquity, but recent archeological discoveries in China show that it’s certainly more than 3500 old – and may be twice that age!

In Daoism, the idea of the connectedness of opposites is contained in the concept of “yin and yang”. As you can find in your dictionary, by ‘yang’ is meant “the active, positive, masculine force or principle in the universe, source of light and heat; it is always both contrasted with and complementary to the yin”, and by ‘yin’ is meant “the passive, negative, feminine force or principle in the universe.” And if, Dear, you think that this definition is still another example of male chauvinism, then note that many women display more yang than yin. Also, be aware that, for practitioners of Zen (which is a combination of the best of Buddhist psychology and Daoist

philosophy), a prime goal of “enlightenment” is to find an appropriate balance of yin and yang.

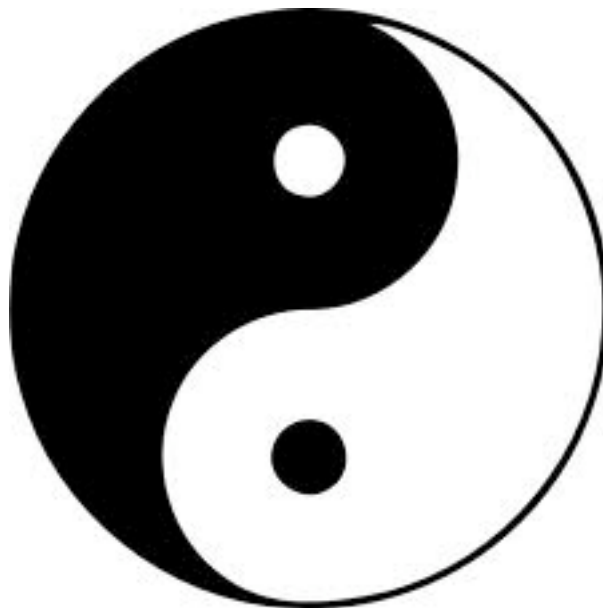
An unidentified author in the *Encyclopedia Britannica* describes the yin-yang concept as follows:³

Yin and yang mean literally the “dark side” and the “sunny side” of a hill. In Chinese and much other Far Eastern thought, they represent the opposites of which the world is composed: light and dark, male and female, heaven and Earth, birth and death, matter and spirit. This is called a system of dualism, or two-sidedness. The two forces yin and yang are believed to be complementary and contrasting principles. Each makes up for what the other lacks, and the wholeness of the world would be incomplete if there were a deficiency of either.

Together the yin and yang are depicted as a circle, one half dark and the other half light. (This symbol appears on the flag of South Korea.) Within the dark half there is a small light circle, and within the light half there is a small dark one. This suggests that, though opposites, there is a necessary relationship between the two. Neither exists in and of itself alone.

The yin and yang are both said to proceed from the Supreme Being or Ultimate [or Dao]. Their significance through the centuries has been felt in every aspect of Chinese thought, including astrology, religion, medicine, art, and government.

The symbol that represents the yin-yang principle (or “the complementarity principle”) is shown below and is known as the Taijitu.



³ Copied from <http://www.britannica.com/ebi/article-9277845>.

As described by Aaron Hoopes in his 2007 book *Zen Yoga: A Path to Enlightenment through Breathing, Movement and Meditation* (Kodansha International; ISBN 9784770030474):

The Taijitu is one of the oldest and best-known life symbols in the world, but few understand its full meaning. It represents one of the most fundamental and profound theories of ancient [Daoist] philosophy. At its heart are the two poles of existence, which are opposite but complementary. The light, white Yang moving up blends into the dark, black Yin moving down. Yin and Yang are dependent opposing forces that flow in a natural cycle, always seeking balance. Though they are opposing, they are not in opposition to one another. As part of the [Dao], they are merely two aspects of a single reality. Each contains the seed of the other, which is why we see a black spot of Yin in the white Yang and vice versa. They do not merely replace each other but actually become each other through the constant flow of the universe.

In ancient China, the most famous proponent of the idea of the connectedness of opposites (and of Daoism) was Lao-tzu (whose dates of birth and death are uncertain, ranging between the 6th to the 4th Century BCE).⁴ In turn, he credited “the wisdom of the ancients”, in part no doubt

⁴ Dear, when you write your first book (!), and even earlier, when you write your scientific papers (!), be careful about how you identify dates. On the one hand, identifying dates with “BC” and “AD” (relating time to when the clerics’ Jesus was allegedly born) is common in our society (because of the centuries that our society has been controlled by Christian clerics), but surely the use of BC and AD is insulting to the many people of the world (e.g., essentially all Asians) who don’t consider the clerics’ Jesus to be such a significant historical figure (if he was a historical figure at all!) that dates should be referenced to him. To minimize such insults, it’s now common to use BCE (for “before the current era” or “before the common era”) and CE (for “current era” or “common era”), but still using the same “zero” for the dates, i.e., around the time of the alleged birth of the clerics’ Jesus, which not-at-all incidentally (as I’ll be showing you) was the start of the astrological “age” of Pisces, the fish. In the scientific literature, you’ll find “BP”, meaning “Before the Present”. But this BP is, of course, rather undesirable, because the reader then must know when the writer wrote – unless the referenced time is so distant that a few thousand years error would be irrelevant!

With these undesirable features of both ways of identifying dates, there is now discussion about a new scheme for defining historical dates – if only all people of the world would agree on what year is to be labeled as the “zero year”. In that regard, the best idea that I read (I’ve forgotten the author’s name) was that the “zero” of the new identifying scheme should be the day when the vast majority of the people of the world agree to use the same calendar! An alternative that might find support is based on “the precession of the equinoxes”, a concept that I’ll describe in a later chapter. As a result of this precession, a different sign of the zodiac appears on the horizon on the first day of spring roughly every 2200 years (with the exact year being identifiable with a simultaneous “triple conjunction” of Jupiter and Saturn). Thereby (and not by coincidence but by clerical design!), the birth of Jesus allegedly occurred at the end of the Age of Aries, the lamb (“who died on the cross”), on the first day of the Age of Pisces, the fish, and in a few hundred years, the Age of Aquarius, the water carrier, will begin. Consequently, dates could be related to these “astrological ages”, e.g., by replacing at least the most recent ~2200 years BCE by years in the Age of Aries (AAr) [and with earlier years identified with their astrological ages, including the Age of Taurus, the bull, and Gemini, the twins], replacing all ADs by APis (Age of Pisces), soon (starting with the “triple conjunction” in about 2200 CE), starting with 0 AAq, i.e., the start of the Age of Aquarius (when finally the lyrics of the song will be correct: “This is the dawning of the Age of Aquarius...”), and so on.

referring to *The Book of Changes* or *I Ching*, which was written about 200 years before the earliest part of the Bible. As examples, Lao-tzu wrote:

To yield is to be preserved whole.
 To be bent is to become straight.
 To be empty is to be full.
 To be worn out is to be renewed.
 To have little is to possess.
 To have plenty is to be perplexed.

The same idea of the connected of opposites also developed elsewhere, but apparently it wasn't adopted so widely as in Asian countries, especially in China. One of the most famous proponents of the same idea "in the West" was the Greek philosopher Heraclitus (~540–480 BCE). Only fragments of his writings and ideas are available, but these include such statements as: "the opposite is beneficial; from things that differ comes the fairest attunement" and "what agrees, disagrees; the concordant is discordant." Some additional examples from Heraclitus, quoted from an article⁵ by Christopher D. Green entitled "Heraclitus' Theory of the Psyche", are the following:

Heraclitus frequently asserted the unity of opposites: "the road up and down is one and the same road", "while changing, it rests", "in the case of a circle, beginning and end are the same", "cold things become warm, a warm thing becomes cold...", and perhaps strangest of all, "immortals are mortals, mortals immortals: living their death, dying their life."

Another illustration from Heraclitus is

It is not good for people to get all they wish to get. It is sickness that makes health pleasant; evil, good; hunger, plenty; weariness, rest.

If the above illustrations seem like "gobbledygook" to you, Dear, then 1) hang on a bit longer, and 2) note that, you're in good company! Thus:

Euripides gave [Socrates] the treatise of Heraclitus [i.e., his now-lost book, *On Nature*] and asked his opinion upon it... [Socrates answered], "The part I understand is excellent, and so too is, I dare say, the part I do not understand; but it needs a Delian diver to get to the bottom of it."

To help you "get to the bottom of it", I'll provide a few examples below. If you'll understand just one, then all will probably seem trivially obvious.

⁵ Copied from <http://www.yorku.ca/christo/papers/heraclit.htm>.

As a first example, consider pleasure and pain. They're connected at a fundamental level: they're always linked; neither of these feelings has any meaning without the other. Thus, Dear, if you had never experienced pain, then you wouldn't have a reference for which to compare pleasure: pleasure has meaning only relative to pain. It's all relative. It's as if there's a long scale (like a ruler, or a yardstick, or...), on one end of which is extreme pain, and on the other end is extreme pleasure, i.e., ecstasy. They're connected – and can't be disconnected. Using different words, you could say that there's a single continuum (between pleasure and pain), along which your emotions move, and it's impossible (even theoretically!) for you to break out of this continuum: to experience pleasure, you must also experience pain.

Look at the same from a different perspective: consider threats to your survival (pain) and signals telling you that you're surviving (pleasure). It's one continuum; all such signals deal with survival. To illustrate their connectedness, consider the lives of the “rich and famous”, especially those unfortunate people who inherited vast sums of money. What a horrible inheritance! And if you don't understand why I said that inheriting a huge sum of money would be horrible, Dear, then please think about the following. All people know (even if “only” intuitively) that one of their prime goals is their own survival. But by leaving their children vast sums of money, the parents have said to their children (if effect): “Here; you don't need to struggle to survive; your survival is guaranteed; forget your ‘prime directive’ (borrowing a phrase from the TV series Star Trek).”

So what do their children do? They damn near go crazy (in fact, many do!): the children are then forced (by their prime directive, i.e., by their instincts) to create a huge array of artificial threats to their survival (skiing, sports-car racing, horse-back riding, gambling... until they soon run out of “thrills”), in search of pleasure (i.e., in search of signals telling them that they're surviving). That is, because pleasure and pain are connected, what parents do when they leave their children a huge inheritance is eliminate a large part of the continuum (the part containing normal pain), condemning their children to live in a constricted range. If you really hate your children, then smother them with love! (Do you see, Dear, that there really is meaning to what at first might seem to be gobbledeygook?)

Try another example: love and hate. They're connected. These extremes are at the ends of a continuum that could be called “engagement” or “entanglement” or “connectedness”. In a sense, then, love and hate aren't

different; they both deal with connectedness. In contrast, opposite to both (or, in a different continuum) is disconnectedness. For example, a marriage doesn't fail when love turns to hate, because even when people hate each other, they are still intimately connected. Instead, marriages fail when husband and wife become disconnected, for example, with disinterest.

Another example (which I'll return to later in this book): heaven would be hell. Do you see the meaning? If your survival were guaranteed, what then would you do for pleasure? One can sit around and "contemplate one's naval" (or one's god) for only so long: it then would become overwhelmingly boring, i.e., "boring as hell"!

Dear: our DNA molecules have programmed us to struggle to survive (again: those that weren't, didn't, i.e., they're not here). We're problem-solving animals. Take away the problems, take away the struggle, and we invent "fake problems" just to feel the thrill of struggling to survive. So, then, what would be the most wonderful heaven? Hell! That's the desired destination: that's where the real struggle would be! Crazy? Really? Or is the real craziness the concept of heaven and hell?!

If one wanted to be religious, i.e., to choose to live one's life by someone else's rules (although why one would want to do that is beyond me!), then the Hindu religion would seem to be better. In Hinduism, at least one gets to "believe" in reincarnation, wherein one returns to this world to try again: to try to be better next time, to experience even more pleasure by overcoming even more difficult challenges. For me, however, this "universe" (this "one turn") is enough. And it's made astoundingly better by knowing it's only a one-time affair. Then, Dear, I wonder if you already understand the "gobbledygook" that I'll return to later: the "spice of life" is death!

The poet William Blake (1757–1827) put in rhyme many of these types of thoughts. I'll show you a few examples. They're not from a single poem, and therefore, I've put "***'s" between entries:

Man was made for joy and woe,
And when this we rightly know
Through the world we safely go.

There is a smile of love,
And there is a smile of deceit,
And there is a smile of smiles
In which these two smiles meet.

To see a world in a grain of sand
And a heaven in a wild flower,
Hold infinity in the palm of your hand
And eternity in an hour.

Thine loves the same world that mine hates,
Thy Heaven's doors are my Hell's gates.

Well, maybe that's enough for now. But before I list the “connections” that I normally review, let me add a note about one that will appear in the list below, namely: “Black supports white; every ‘in-group’ needs its ‘out-group’.” It's an example that Alan Watts describes beautifully: would that all “white supremacists” would realize that they desperately need the blacks (or other races), over whom to feel superior! Such stupidity! The Nazi's would have been nothing without the Jews. Similarly, for the past 2,000 years, perhaps the strongest “glue” keeping the Jews “intact” was Christian hate! And similarly for every “in-group”: for example, would that “religious fundamentalists” (of whatever religion) would see that their prime love is hate!

Finally, after all those “introductory comments”, immediately below is the list of “connections” that I normally review (and if some problem is bothering me, I normally spend time to see how the range of associated ideas and emotions are connected).

The interconnectedness of opposites:

Black supports white;

Every “in-group” needs its “out-group”;

Pain is needed to appreciate pleasure;

Threats are needed to enjoy security;

Confusion is needed to understand clarity;

Confinement is needed to permit freedom;

Cowardice is needed to be courageous.

Climbing is needed to reach a new plateau;

For there to be mountains, there must be valleys;

For there to be highs, there must be lows;

Any heaven would be hell;

“Every light that shines also causes shadows – but if there were no shadows, new lights would never shine.”

The last one in the above list is a quotation not from one of my “poems” but from an “essay” that I wrote after I returned from a scientific conference in the Soviet Union in about 1984. I hope that the above quotation is understandable as it stands, but for your possible interest and also because you may pick up a few other ideas from it about the connectedness of opposites, I’ve included this essay as Chapter **C2**. And because the essay may seem to be “too weird” even for your old grandfather, I’ve also included some introduction to the essay, to show you why I chose to write it.

My final thought for “C” summarizes much of the above:

All is one continuum; everything is connected.

This idea, that all is one, means the same as Watts’ idea that each of us is the Universe “I’ing”. As I’ll show you later, it also means the same as Spinoza’s idea of “God”, namely, “everything” – and I certainly agree with Spinoza that it would be ridiculous to “worship” this “oneness”.

The point is not one of “belief”, Dear, but one of fact: your fingernail, my sore leg, Mount Everest, and the most distant galaxy are all part of this universe – it’s all just one. Furthermore, such ideas were actually deduced by this universe, flowing from the universe of experiences to which each of us has been exposed. Similarly, everyone’s universe of experiences leads us all to the connected thoughts to help our friends and hinder are foes. The whole is one huge continuum; an individual and an individual’s thoughts are but tiny ripples or waves in this continuum – an idea that I’ll return to in later chapters.

SUMMARY

Well, Dear, that’s all there is to ‘C’. In this book, **C** may seem shorter than **B**, but when I’m walking, ‘B’ only takes me a minute-or-so, whereas ‘C’ can take substantially longer – especially if I’m “bothered” by something and then spend time trying to understand where the “feeling” fits into some “continuum” of feeling, connecting two opposites. Here, as a review, I’ll just re-list the “essence” of C:

C - Connectedness

There is a collective consciousness going on.

I'm the crowning achievement of Nature's consciousness, but we're all cousins, struggling to survive.

Don't be afraid of confrontations;
Have the courage to change;
Careful of chemicals...
Careful of mental connections...
Careful of confused thoughts...
Capitalize on confusion.

The interconnectedness of opposites:

Black supports white;
Every "in-group" needs its "out-group";
Pain is needed to appreciate pleasure;
Threats are needed for the pleasure of survival;
Confusion is needed to reach clarity;
Confinement is needed to permit freedom;
Cowardice is needed if there is to be courage;
Climbing is needed to reach a new plateau;
For there to be mountains, there must be valleys;
For there to be highs, there must be lows;
Any heaven would be hell;
"Every light that shines also causes shadows – but if there were no shadows, new lights would never shine."

All is one continuum; everything is connected.