

LOVE, HEALTH, AND ETHICS

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Love alone gives value to all things"

St. Theresa of Avila

Humankind became an endangered species in today's world, mostly because it has been waging war against Nature through global poisoning, mass destruction of forests, genocide against numerous animal species, distasteful unhealthy buildings, electronic pollution, you name it. And we do struggle among ourselves and we do produce mass human destruction. Jessica Williams (2004) tells us that in 2003 the USA spent 396 billion dollars in its military, 33 times plus than the combined budgets of Cuba, Iran, Iraq, Libya, North Korea, Sudan and Syria. But 15 billion dollars would suffice to provide basic primary healthcare to all people in the world. The world's military expenditure is increasing, not decreasing even after the end of the Cold War. Our industries fight each other, try to go for continuous unsustainable development, predate weaker countries, help keeping and cultivating a predatory culture of competition and a win-lose game everywhere.

So, what can we do? For me, as Psychologist, the answer is obvious: we must change humanity's mind and we must change this predatory culture we live in. As Odent (2001) put it clearly, past cultures had a survival advantage in ferocity and predatory behaviour but nowadays we can but perish as humans if we keep doing it. We have too many ways for global destruction (military weapons, industrial pollution, agricultural field poisoning) and it becomes easier to use them. Climate changes and ensuing catastrophes are dramatically showing the products of our aggression towards Nature.

In what direction do we change this Culture? Towards a Culture of Love and Wisdom, of course. And how? We must assume Love is needed and a global priority should be placed on developing and teaching love. Love for oneself, for others and for Nature. Where? In schools first, then everywhere. How so? Through example and through scientific cultivation of love and teaching, resorting mostly to experiential practices. Don't we know about them within the Transpersonal field – or the field of a Psychology and Anthropology of Consciousness, as I prefer calling it?

Aha, here we have a neat utopian program. Another one of them... But Politicians will never agree on this, or will they? In a way, it wouldn't suit their needs. They would be going against major industrial powers and even against lots of cultural traditions. But perhaps we can do something about their beliefs and agreement. Science and Technology became global gods during the XXth

Century and politicians do listen to them. It is just totally incorrect, politically speaking, not to listen to them. This article's aim is to begin showing scientifically that... Love is the answer. It is personally, socially and globally healthy and Science shows this. It is no longer a "New Age foolishness" nor is it wishful thinking. And we do have some psychotechnologies for teaching and developing love. Lets see why.

Two sets of research areas can help us in our goal, showing that the way we love, the way we are loved (or rejected) and the way our love is received can damage or improve both our mental and physical health. We can call one of them *love deprivation studies* and the other *love abundance studies*.

LOVE DEPRIVATION

Lack of love and/or poor quality relationships have devastating effects both at the individual and social levels. *Ethology* demonstrated that among primates the absence of maternal care is associated with growth retardation, social withdrawal, inadequate socialization and inhibited verbal communication (Carter, 1998) or to a general threat to survival (Neimark, 2003 and, of course, the classical research by Harlow). Christopher Coe has shown how the separation of infant monkeys from their mothers can suppress the babies' immune system (quoted in Siegel, 1986). *Social studies* also contribute to our views. Prescott (2004) coined the term SomatoSensory Affectational Deprivation (SSAD) describing a syndrome of "impaired or failed mother-infant bonding that results from a deficiency in the infant's sensory stimulation via touch, body movement, smell and taste and breastfeeding" (pg 19). Such deficiency can affect all infant mammals giving rise to emotional-behavioral disorders including: "depression; chronic stimulus seeking (obsessive-compulsive) behaviours; tactile avoidance; impaired pain and pleasure perceptions; hypersensitivity to touch; impaired sexual pleasure and sexual functioning; alcohol/drug abuse, dependence, and addiction; and social alienation with anti-social behaviours that include violence, suicide and homicide" (pg 19). SSAD induces biological disturbances in the brain, mainly in the "subcortical emotional-social-sexual part of the brain that unfolds early in development – not the neocortical rational/cognitive brain that results from later brain development" (pg 19). This amounts mostly to disorders in the development of the "normal pleasure systems of the brain" – and to seeking of deviant pleasures. Prescott tells us that "somatic (bodily) pleasure is the glue of affectional bonding" and talks about a "dissociative brain" resulting from SSAD and an "integrative brain" resulting from correct bonding. The same author conducted cross-cultural studies and could predict the peaceful vs. violent nature of forty-nine tribal cultures with 100% accuracy using only two measures of "affectional bonding: Mother-infant /child relationship (continuous baby carrying on the body of mother or relative throughout the day for the first year of life) and adolescent sexual relationships (meaning support or punishment of adolescent sexuality). The first measure could predict with 80% accuracy the peaceful or homicidal violence of the tribal cultures. Also the suicidal rate in 77% of societies where "weaning age was 2.5 years or greater" was low or absent. This also corresponds with the fact that such societies usually support adolescent sexuality. "Love is a brain gestalt that is formed primarily from

sensory stimulation: Body movement, body touch, body smell” (Prescott, 2004,pg 20).

According to Odent (2001), the majority of our cultures have cultivated a ritual disturbance of the birth process through denying our “mammalian need for privacy” (all mammals try not to be observed at birthing time) and disturbing the very early process of bonding. This would be a common feature of most cultures. Such disturbance produces later aggressive behaviour as it damages the biology of love. In the past it could have been adaptive; nowadays it endangers our species and our planet. I can but quote Odent when he asks, at the end of his 2001 book, “can humanity survive obstetrics?” The same author observed that the social need for aggression and the ability to destroy life is connected to intensity of the intrusive rituals and beliefs in the period surrounding birth. We can also follow him in recalling the awful practices of the old Spartans (excellent warriors, by the way) or thinking about Jesus “as the one who promoted love after being born in a stable among mammals. The symbolism of this phase of the legend of Jesus has been neutralised for two millennia” (op. cit., pg 27).

Health and Psychological studies also show a clear connection of poor health and love deprivation. Years ago, Eurico Paes, a Portuguese endocrinologist, told me, in a personal communication, that he studied children who stopped growing – and producing growth hormone – immediately after their parent’s divorced. We can easily link this fact with others that seemingly point in the same direction: 5% of children’s admissions in Pediatric Hospitals are due to Failure to Thrive, of which 30 to 60% come from non organic causes. These children show developmental delay, behavioural problems and immaturity. The main common factor seems to be general maltreatment from the family (Broughton, 1989). Classic research from Bowlby, Solomon and Ainsworth showed that young children’s different attachment styles can predict later behaviour and that children’s maltreatment can negatively affect social, emotional and cognitive development and give rise to aggressive behaviour (Oatley, 1992).

Russek & Schwartz (1996) made a 35-year follow up on a classical Harvard Study that showed how perceptions of parental love and caring can strongly predict long-term health. So, 35 years later, the health status of 400 man and women correlated positively with their previous evaluations of parents and relationships with them. Four sick subgroups (cardiovascular, duodenal ulcer, alcoholism and miscellaneous) had significantly fewer positive descriptors than the healthy group ($p < .036$). 95% of people with few positive descriptors of both parents and low in parental caring evaluation had diseases diagnosed in mid-life while the same was true for only 29% of people with high ratings in positive descriptors for both parents (they rated their parents high in love and caring). Of course this study also showed other predictors of disease, like parent’s death or divorce – which nonetheless point also to the importance of loss as a factor in illness and, of course, with loss of relevant people love is frustrated.

Bedel (1974, quot. In Anderson, 2004) showed a strong relationship between adult cancer and a perception of lack of closeness to parents in the family of origin. The absence of positive social interactions or social bonds typically is associated with both physical and mental illness. Carter (1998, quoting several others) mentions several studies with evidence that men have higher risk for mortality if they are unmarried, socially isolated, lacking emotional support and that women with similar problems have the same risk plus higher risk for cancer onset and for pregnancy and pregnancy outcomes. It is a well established fact that stress lowers immune competence and, of course, gets higher if one expects the world to be aggressive instead of affectionate.

It looks like there are illness-prone personalities. The classical example is "Type A": competitive, achievement oriented, easily annoyed, time-urgent. When "type As" are rated *low in amicability* by their peers, well-known risks for cardiovascular disease and general health are higher. On the other side, one aspect of this personality seems especially connected to coronary diseases: *hostility, anger* and *anger expression* (Adler, 1994). More recently, "Type C" (cancer-prone) has been spoken of. According to Martin (1997) a "reasonable consensus" exists about cancer-prone personalities: they have a general propensity to inhibit strong emotions, especially anger; they comply with the wishes of others and lack assertiveness; they avoid conflict or behaviour that might offend others; they are calm, with a outwardly rational and unemotional approach to life; they obey conventional norms of behaviour and maintain the appearance of "niceness"; they are stoic and self-sacrificing; they have a tendency towards feelings of helplessness and hopelessness. Of course one can find in the literature reasons to believe such a personality profile often goes with fear of losing love from others, coming from love lost in the past...

To conclude this section, let us mention the idea of a "broken-heart syndrome". Branswell (2005) mentions recent findings showing that acute emotional distress can trigger a cascade of biochemical events and give rise to "what appears to be a massive heart attack according to the New England Journal of Medicine". Triggering events can be sudden loss, sudden surprise, an armed robbery. Shock or loss can vastly elevate levels of catecholamines, chemicals such as adrenaline and noradrenaline that act both as hormones and neurotransmitters in the body. The flooding of the system with those chemicals could be the main factor inducing such cardiac consequences. So it looks like sudden loss (implying loss of significant resources for love) can really trigger such spectacular short-term consequences as a heart attack while love deprivation can also give rise to poor health in the long run.

Let us now turn to another source of evidence showing that love is important for physical, emotional-cognitive and even social health: *love abundance studies*. We already know quite something about that from biological and psychological research.

LOVE ABUNDANCE

Siegel (1986) gives us a good panorama when he asserts: "If I told patients to raise their blood levels of immune globulins or killer T cells, no one

would know how. But if I can teach them to love themselves and others fully, the same changes happen automatically. The truth is: love heals” (pg 181). The same author quotes research by Ellerbroek, who collected 57 cases of “cancer miracles”. All of them were people who decided to give up totally their anger and depression and to start loving, caring, and being able to talk to people they loved. Siegel even speculates that perhaps it was love that enabled Mother Teresa and lots of other nurses to work “among hundreds of sick, infected people every day without becoming ill” (pg 182). According to Post (quoted by Neimark, 2003), research shows that loving acts neutralize the kind of negative emotions that adversely affect immune, endocrine and cardiovascular function. The same author (who recently published a major review on literature: see Post, Johnson, McCullough & Schloss, 2003) believes altruism and caring for others increases happiness, health and self-esteem. Carter (1998) underlines the idea that love and social attachments can facilitate reproduction, provide a sense of safety and reduce stress or anxiety. Stefano (2006) pinpoints that joyful activities such as love may activate areas in the brain responsible for emotion, attention, motivation and memory (i.e., limbic structures) and also can serve to control the autonomic nervous system, i.e., stress reduction. Love can thus activate central nervous system areas that appear to exert protective effects even on the brain itself. Beck (1996) discusses the role companion animals can play in health promotion: “there is growing epidemiologic evidence that people who feel an attachment for nature or for companion animals have lessened risks for disease processes compared with people without such experiences.” (pg 250). According to this author, the presence of non-judgemental, loving pets at home can facilitate children’s learning about responsibility and positively alter both children’s attitudes about themselves and their relational ability.

The classical human quest for happiness has recently received a contribution from Argyle (2002). According to him, the main causes of happiness are not money or material well being but rather *close relationships*, leisure & satisfying work.

Discussing the biological effects of love, Krippner (2002) quotes a study from Sheldon Cohen & all (1997) who worked with 276 healthy volunteers, giving them nasal drops containing rhinoviruses associated with susceptibility to common cold. “Those volunteers with more types of social ties were less susceptible to colds, produced less mucus, shed fewer viruses, and were more effective in clearing their nasal passages” (pg 344). This is but one example among quite some research showing that love can boost immune functions – and at the same time, as we have seen previously, love deprivation can undermine them. If we turn our attention to love physiology, some data are worth mentioning. After a review of literature, Carter (1998) underlines the recurrent association between high levels of activity in the hypothalamic–pituitary–adrenal (HPA) axis and the subsequent expression of social behaviours and attachments. Positive social behaviors, including social bonds, may reduce HPA axis activity (and, with it, lower stress); in some cases, negative social interactions can have the opposite effect. Central neuropeptides, and especially *oxytocin* and *vasopressin*, have been implicated both in social bonding and in the central control of the HPA axis. The same central neuropeptides seem to have a major role in love physiology: Odent

(2001) insists that oxytocin is the hormone of Love. "It is noticeable that whatever the facet of Love we consider, oxytocin is involved" (pg 11). Carter (1998) abundantly quotes research showing the importance of oxytocin and vasopressin in the formation of social bonds in mammals. Vasopressin seems especially important for the selection of sexual partners. However, stress can speed up the selection of pairs among mammals. Carter quotes Simpson and Rhodes (1994) about this when they assert that stressors trigger the need for proximity and attachment behaviours, and that "some degree of strong, yet manageable stress may be necessary for very strong bonds to form". Joking a little bit, maybe we can find here some hints about why is it that James Bond so easily connects with so many stunning "Bond girls": Hollywood kind of stress does the trick.

According to Pert, Dreher & Ruff (2005), There is now clinical evidence strongly supporting the idea that "emotional expression, disinhibition and self-actualization strengthen the immune system" (pg 71). Of course a Psychologist would add that such psychological characteristics do imply love of oneself. Pert and colleagues also mention of experimental data showing that there are both receptors and neuropeptide-producing cells in the brain (namely the limbic system) in lots of body organs and in immune cells. "In the form of neuropeptides and their corresponding cellular receptors, our biological systems (the body) are literally flooded by our cognitions and emotions (the mind)". (pg 61). They tell us about a "psychosomatic network composed of neuropeptides, short chains of amino acids present in the brain as well as nonneural tissues, and their corresponding receptors" (pg 62). Major brain centres for emotional processing, including the hippocampus and amygdala (at the limbic brain) are full of receptors for lots of known neuropeptides. Receptors for the same neuropeptides exist in cells and tissues "throughout the body". So we have both receptors for, and production of, neuropeptides (functioning as information carriers) both in the brain and the rest of the body. Also we know that immune cells produce neuropeptide molecules (that can influence the brain) and that nerve cells produce also several immune products and can regulate immunity. Pert and colleagues do not imply that we should only have "positive emotions" and she also explains that variety of "positive" and "negative" emotions does not imply health damage; what does this job is a long-term state of distress ("helplessness, hopelessness, depression, despair" (pg 70) resulting from rigid defensive patterns of behaviour, anger against the self, unresolved grief, poor coping styles. There is also evidence that interventions trying to improve emotional expression and management only get good immune results when they also imply some "interpolation of consciousness into otherwise autonomic (unconscious) psychobiological processes, resulting in beneficial health outcomes" (pg 76). For the authors quoted above, emotional expression and resolution are really the psycho-spiritual correlate of a balanced flux of neuropeptides which in turn generates a functional healing system going together with balanced endocrine secretions, a strong immune system and perhaps even the possibility of control over cellular anomalies. So consciousness and love seem to be among the most important factors playing a role in our fine-tuned body health. And we do know that lack of love seems to be a powerful factor for unbalancing it.

The “old” discussions on attachment received a contribution from Field (1996) when he rethought the concept. For him, attachment is something that can develop among two or more individuals “as their behavioural and physiological systems become attuned to each other” (pg 558). This behavioural and physiological attunement, in turn, can favour both individual and social organization and development. Actually all of us have heard about people living together and sometimes getting an attunement of their biological rhythms (like women who get to have their menstruation at the same time). Why? One can only speculate at this time. Perhaps some subtle information could be passing among organisms. It could be through chemicals but it could also be through some anomalous information transfer.

Speaking about “anomalous” information transfer, I can but recall some research in Parapsychology. Dalton (2002) points out relevant experimental evidence within the Ganzfeld Paradigm, showing that “emotionally close pairs and biologically related pairs produce superior psi performance compared to a general population” (pg. 205). Peoch’ (1996) also has shown telepathic connections among brother rabbits grown together but not with control brother rabbits grown separately. Maybe some loving connections do have something to do with so called anomalous information transfer. Prayer could be one important example. The very famous study by Byrd in 1983 with 393 cardiac patients who were “targets” for catholic prayer from a prayer circle (in a double-blind study) was replicated with methodological improvements in 1998 by William Harris and a team from the Mid-America Heart Institute at St. Luke’s Hospital in Kansas City. He studied 990 patients with totally similar (and statistically very powerful) results. In the Byrd study, prayed-for people did recover 10% better and faster; in the 1998 study the percentage was 11% (see for instances, Schmicker’s 2002 big review about this and other “best evidence” in Parapsychology). But why do people pray for others? The usual answer is “out of love for humankind”. Anecdotal evidence for Faith healing is generally full of loving episodes (see also Schmicker, 2002, on this one).

Levin (2005) also presents some strong evidence about the healthy effects of love. For instances, “experiencing love (defined as positive affect plus absence of social isolation) was the strongest correlate of self-esteem in a sample of multiple sclerosis patients” (pg 328) and reporting loss of love was among the most common antecedents of completed or attempted suicide or suicidal behaviour (pg 328) – and of course suicide is generally a major aggression towards oneself and indirectly towards others. Levin also mentions a famous study that examined the effect of watching a documentary on the life of Mother Theresa of Calcuta on the concentration of salivary immunoglobulin (S-IgA): it rose significantly in study subjects. It also rose significantly and stayed like that one hour later for subjects given the exercise of remembering moments in their lives when they felt loved or felt love. Also according to him, It has been observed that “sincere love, appreciation and care” produces in research subjects a healthy heart rhythm that is “smooth, regular, coherent”.. This seems to be part of a more generalized state of “physiological coherence” similar to the one that was found both in self healing or healing of others. In states of inner and bodily harmony, oxytocin also attains high serum levels. Levin even follows Antonovsky’s concept of “salutogenic” factors to view love as

being more than just a health improving factor. Love is seen as a positive and active energy with effects comparable to other epidemiologic agents. Again research on prayer healing effects seems to go in the same direction as we can see in it a loving activity with concrete distant effects...

Sexual love also has positive health effects and of course they are well documented because sex can be easily brought into a laboratory. Link & Copeland (2004) give us a nice resume. Especially when sex goes along with intimacy and affection, it can: burn calories; favour blood flux to the brain and the entire body thus favouring general blood circulation; lower cholesterol and help increase HDL; lower stress; help relaxation and improve sleep; alleviate pain (so much for headaches as an excuse against sex); improve prostate health and avoid illness; regulate hormone levels; increase testosterone and oestrogen levels both in man and women. In turn, testosterone augments libido while strengthening bones and muscles and oestrogen protects against cardiac diseases. A British study with 1000 men who had at least two orgasms per week showed they had half of the mortality of those who had one orgasm per month or less.

To end this review, let us turn to Dean Ornish (2005). He describes lack of blood flow as the immediate cause of heart disease and goes on to describe clogged or constricted arteries, blood clots or other mechanisms that reduce blood flow to the heart. But then other factors come into play, like eating habits, nicotine use, stimulants – and the way we respond to stress. From this he comes into describing the common factor of lots of otherwise different heart patients: “the sense of loneliness, isolation, and alienation that I think is epidemic in our culture” (pg 307). So... love deprivation again. According to him, definitely, love is the answer. Ornish suggests “a different kind of “open heart surgery” – one that’s based on altruism, compassion, and love, not just unclogging arteries” (pg 311).

Until now we have a lot of different studies on love. Some are of the laboratory kind, experimental and searching for cause-effect relations, so scientifically very strong; others are only statistical studies resorting to correlates that can or cannot be due to cause-effect relations. Some would be a lot better than others in defining love, measuring love or going for the specifics of variables influencing love or love correlates. But all of them seem to be pointing in the same direction: love deprivation favours poor mental and physical health and social violence; love abundance favours good mental and physical health and social harmony. Is this something politicians, entrepreneurs and other powerful makers of modern world can disregard? I don’t believe so. But of course there are reasons for some people to get very annoyed with an article such as this one. Once I asked a Portuguese politician: “why is it that you politicians never talk about love?”. He did cough a little bit on this one before recognizing he didn’t have an answer. Then he told the audience he really loved people...

I believe the problem is a hard one. Drug and arms sales are amongst the biggest economical industries and a loving society would extremely decrease them. Remember the US expenditure with the military? And one can

consider illegal drugs sales (which are huge and somehow contributing in a poorly acknowledged way to some countries' economies) but also legal drugs sales. If general mental and physical health get improved, this amounts to a steady decrement in profits from the health businesses everywhere. Also a society that was built in the past on pillars of predation and competition both of people, countries and nature's resources is not easily changed. But we really need healing for today's world and human societies and Love is the healer. How? Again, it must be done through education because education is how we can change Culture and specifically human minds. Love is the answer and Science is showing it.

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