

PSYCHOSOMATIC PLASTICITY: AN “EMERGENT PROPERTY” OF PERSONALITY RESEARCH?

Michael Jawer[#]

Psychosomatic plasticity, defined as an extreme capacity to turn suggestions into bodily realities, is as phenomenon well worth investigating because it challenges mainstream conceptions about the relationship between mind and body in health as well as illness. The field of psychoneuroimmunology (PNI) offers a framework within which to understand this phenomenon because PNI makes a compelling case for the biological unity of self. Hartmann’s Boundaries concept is particularly applicable because it suggests that the minds of “thin-boundary” persons are relatively fluid and able to make numerous connections. Wilson and Barber’s identification of the fantasy prone person and Thalbourne’s transliminality concept are similarly relevant.

Taking these explorations a step further, this author proposes that the flow of feeling within individuals represents the key to psychosomatic plasticity. Blushing, psoriasis, and immune reactions are offered as examples, as are more anomalous reports such as those provided by heart transplantation recipients and cases said to be indicative of reincarnation. In each instance, persons who are highly sensitive (ie, have a speedier and more direct flow of feeling) are more likely to evidence physical reactions. Psychosomatic plasticity represents an emerging area of interest in personality research, one that clearly merits further investigation.

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INTRODUCTION

Consider the following scenario. A researcher carries out an experiment with a small group of people who have scored exceptionally “thin” on a questionnaire designed to illustrate a proposed aspect of personality known as Boundaries. Thin boundary individuals are those who, in the researcher’s conception, “are especially sensitive, open, or vulnerable.” Those at the other, “thick” end of the scale, are “rigid . . . armored . . . thick-skinned.” Now, a few of the thin boundary subjects are told to imagine they are sitting by a fire with one hand grazing close to the flame. Alternately, they are told to imagine they are holding a freezing-cold ice cube in their hand. The same suggestions are given separately to a group of thick boundary subjects. The result: the “thin” group produces a significantly greater change in the skin temperature of their hands compared with the “thick” group.¹

Next, consider what has been termed the “fantasy prone” personality.² Those who qualify not only fantasize a large part of the time but tend to experience what they imagine as real as—*or more real than*—their objective surroundings. Echoing the results of the experiment mentioned above, “a striking characteristic [of] fantasy prone subjects is that their vivid fantasies and memories are at times associated with physical concomitants.”² They may, for example, spontaneously become ill upon seeing violence on TV or in the movies. They may be affected by imagined heat and cold in the same way as *actual* heat and cold. They may experience an orgasm purely as a result of an internally driven sexual fantasy. Some fantasy-prone persons even report that they exert an anomalous influence on the operation of watches and electrical appliances.²

Barber has proposed that such people have what he terms “psychosomatic plasticity—an extreme capacity to turn suggestions . . . into bodily realities.”³ He ventures that such an exceptional ability occurs in approximately 4% of the population. Despite the fact that what such individuals report as “real” for them would strike most of us as dubious, Barber and others assert that this type of personality is not pathological.^{2,4}

The dynamic that may be operative in such cases is not at all clear. An initial clue, however, presents itself: the persons involved report many more symptoms of illness than control groups, although many of their reports are difficult to distinguish from primarily psychological conditions, eg, anxiety and depression.^{1,5,6} This “intertwining” may be explainable by assuming that an individual’s highly charged psychological issues can be transmuted into physical symptoms, such as asthma and other forms of allergy, chronic pain and fatigue, sleep disorders, and other ailments.⁷ It may equally be that certain people harbor innate sensitivities that *predate* or *condition* psychological consequences.⁸ In any event, psychosomatic plasticity appears to be a phenomenon well worth investigating because it challenges mainstream conceptions about the relationship between mind and body.

A NEUROBIOLOGICAL FRAMEWORK

Taking a cue from the simultaneous mind-body nature of psychosomatic plasticity, a framework exists within which the phenomenon can be understood. This framework is the field of psychoneuroimmunology (known in its shorthand as PNI), which makes a compelling case for the biological unity of self.⁹ PNI researchers have shed light on the extent to which the nervous and immune systems, previously thought separate, are in reality merely different aspects of the same web of activity. The dialogue between them is constant, rapid-fire, and reciprocal; the “language” spoken is electrochemical. Electric impulses con-

[#] Corresponding author. Address: 8624 McHenry Street, Vienna, Virginia 22180 e-mail mjawer2001@yahoo.com

vey across neural circuitry while scores of hormones, neuropeptides, and other molecules relay chemical messages throughout the body and brain.¹⁰ The even newer field of neurogastroenterology, which studies the brain-gut connection, is mirroring the strides made in PNI.¹¹

The various messenger molecules—and their specific receptors located on the surface of every nerve cell—make the body, in effect, one large sensing and feeling organ.¹² Taking this concept one step further, psychoneuroimmunologist Candace Pert suggests that bodily organs can store memories based on the specific receptors that they possess and the chemical “prompts” they receive. Indeed, she notes that a high concentration of these receptors has been found “in virtually all locations where information from any of the five senses . . . enters the nervous system.”¹²

On a parallel track, many psychologists, body workers, and other therapists have long noted that an insult or injury to the body that is not immediately addressed or worked through can cause tension to be held in, with symptoms ranging from acute pain to vague dissatisfaction and irritability.^{13,14} A useful example is provided by the oft-observed “whiplash syndrome.” People involved in even low-speed automobile accidents reflexively clench their muscles and contract their bodies to protect themselves from an anticipated impact they cannot escape from. The energy associated with this freeze response, if harbored internally, can lead to chronic muscular pain.¹⁵

It is noteworthy that, among a sample of patients with extended whiplash-type symptoms, 70% indicated that they had had a prior traumatic experience, and one quarter reported that they had been abused as children.¹⁵ Likewise, many (perhaps most) patients treated for chronic gut disorders have experienced such childhood traumas as parental divorce, a major illness or accident, or death of a loved one.¹⁶ This suggests that trauma—especially if experienced relatively early in life—can make an individual more susceptible to a range of maladies heretofore dismissed or disparaged as “psychosomatic.” (In addition to the health problems cited here, such ailments conceivably include premenstrual syndrome, asthma and allergies, migraine-type headaches, vertigo, chronic pain, and chronic fatigue.¹⁴ The implication of “psychosomatic” is that such difficulties reside entirely in a person’s head; that they are primarily mental. However, within the PNI model, no sharp distinction exists between brain and body—all is encompassed within the human *mind*.)

A further example will illustrate the interconnectedness of the nervous, endocrine, and immune systems. One particularly puzzling disorder of the gut is known as irritable bowel syndrome or IBS (although previous generations knew it as irritable or spastic colon¹¹). Researchers are recognizing that IBS may have its genesis in a stress reaction in which the brain activates what are called mast cells in the bowel, releasing histamines and other inflammatory agents. If the stress becomes chronic, inflamed tissue in the gut will become tender and the gastrointestinal tract itself, hypersensitive.¹⁶⁻¹⁸ In such a manner, it is likely that major (and especially early) trauma effectively programs the mind’s stress activation system, prompting the affected individual to become hypersensitive and subject to illness as the immune system overloads.¹⁹

Further evidence for this process is provided by the similarities evident among four insufficiently understood “psychosomatic” conditions: migraine headache, fibromyalgia (ie, chronic pain), chronic fatigue, and depression. In each case, women are disproportionately affected. Fibromyalgia, for example, occurs seven times more often in women than in men, whereas migraine is three times more common in women.²⁰ The overwhelming majority of fibromyalgia sufferers (90%) experience moderate to severe fatigue.²¹ Additionally, persons who have migraine headaches are two to three times as likely to become depressed, and individuals who suffer from depression are three times as likely to get migraines.²⁰ Given these overlaps, there is good reason to suppose that the above conditions have a similar neurobiological basis—relating to the way the mind processes pain and other types of sensory stimuli.²¹ As the renowned neurophysiologist Sir Charles Sherrington declared over 50 years ago, “It is artificial to separate [the mental and the physical] . . . they both are of one integrated individual.”²²

PSYCHOSOMATIC PLASTICITY AND THIN BOUNDARIES

Proceeding from this framework of mind-body unity, let us return to the Boundaries concept propounded by Hartmann. The mind of the thin-boundary person, he suggests, is “relatively fluid,” able to make numerous connections, more flexible and even dreamlike in its processing than the thick-boundary person, whose processing is “solid and well organized” but not prone to meander or make ancillary connections.²³ It is not surprising, therefore, that thin-boundary people exhibit the following characteristics¹:

- A less solid or definite sense of their skin as a body boundary;
- an enlarged sense of merging with another person when kissing or making love;
- sensitivity to physical and emotional pain, in oneself as well as in others;
- openness to new experience;
- a penchant for immersing themselves in something—whether a personal relationship, a memory, or a daydream;
- an enhanced ability to recall dreams; and
- dream content that is highly vivid and emotional.

The fluidity evidenced by the thin-boundary personality roughly equates to Thalbourne’s concept of “transliminality,” defined as “tendency for psychological material to cross thresholds in or out of consciousness.”²⁴ Thalbourne has found that the following are part of the personality cluster of the highly transliminal person:

- creativity;
- a penchant for mystical or religious experience;
- absorption (a bent for immersing oneself in something, be it a sensory experience, an intellectual task, or a reverie);
- fantasy proneness;
- an interest in dream interpretation;
- paranormal belief and experiences; and
- a heightened sensitivity to environmental stimulation.

I propose that extremely thin-boundary, fantasy-prone, transliminal individuals are the most likely candidates for psychosomatic plasticity. Owing to the numerous and the highly fluid connections among their bodies' various systems (nervous, endocrine, immune, gastrointestinal, circulatory, respiratory, digestive, reproductive), these people have the truly exceptional capacity, as Barber has observed, "to turn suggestions . . . into bodily realities."³ This connectivity, I suggest, develops in the womb and is arrayed at birth, although life experience—particularly early experience—modifies it. The *dynamic* is a more rapid and direct flow of feeling, and the *product* is the ability to generate a bona fide physical reaction from a thought, idea, or suggestion.

Imagine if you will, a stream: clear, cold water, rippling over rocks, in continuous motion. Imagine, too, that the stream has various sources and tributaries: fed by springs and emptying into various channels and creeks. That stream is the ever-present flow of the human mind. Its sources are all the cells that, in combination, transform food and oxygen into the body's energy; its course is nerve fiber and the bloodstream itself; its tributaries are the muscles, organs, and skin. The most important organ, the heart, is actually not a tributary but a central pump and "way station" for this continuous flow.

EXAMPLES OF PSYCHOSOMATIC PLASTICITY

Blushing, an experience virtually everyone has had, illustrates quite plainly that "mere" thoughts and feelings can indeed generate a physical reaction. So does the anticipation or recollection of a tasty food, both of which can make the mouth water.¹⁰ Another form of psychosomatic plasticity is psoriasis; it is recognized that rashes, lesions, welts, boils, and the like tend to become aggravated with stress.^{25,26} The Boundaries concept postulates that a person toward the "thin" end of the scale should demonstrate these reactions more quickly and easily than someone at the "thick" side of the spectrum.¹

Plasticity comes in other forms. When one hears of individuals who cure themselves of some craving, raise hives, or cause a wart to disappear, it is often attributed to hypnosis. However, hypnosis clearly does not work for everyone: certain people are far more amenable to hypnotic suggestion than others.²⁷ Consider that, when hypnosis works, it evidently does so because the given suggestion ("you are getting sleepy . . .") is taken seriously by the person being hypnotized, who proceeds to put it into effect physiologically and neurologically. In other words, suggestible people believe what they hear, and their thin boundaries quickly reflect that affirmation.³ Placebos presumably work the same way: better for some people, worse for others.

Immune reactions are also capable of being influenced through psychosomatic plasticity. In one well-documented case, a woman was able to voluntarily reduce her immunological reaction to a skin test for a period of three weeks and then bring it back up again.²⁸ Likewise, hypnotized subjects can develop an allergic reaction when they come into contact with a substance that is not truly allergic but which they are *told* is allergic; conversely, they can avoid an allergic reaction when told that a substance is not allergic when it actually is.³

EMOTION AS THE VEHICLE

I suggest that *movement*—the flow of feeling itself within the individual—represents the key to plasticity. Neurologist Antonio Damasio, one of the foremost investigators of emotion today, provides an elegant illustration in his book *The Feeling of What Happens*.²⁹ He relates an encounter between himself, his wife Hanna (also an emotion researcher), and the pianist Maria João Pires. She told them the following:

When she plays, under the perfect control of her will, she can either reduce or allow the flow of emotion to her body. My wife . . . and I thought this was a wonderfully romantic idea, but Maria João insisted that she could do it, and we resisted believing it. Eventually, the stage for the empirical moment of truth was set in our laboratory. Maria João was wired to the complicated psychophysiological equipment while she listened to short musical pieces of our selection in two conditions: emotion allowed, or emotion voluntarily inhibited. Her Chopin *Nocturnes* had just been released, and we used some of hers and some of Daniel Barenboim's as stimuli. In the condition of "emotion allowed," her skin conductance record was full of peaks and valleys, linked intriguingly to varied passages in the pieces, and then, in the condition of "emotion reduced," the unbelievable did, in fact, happen. She could virtually flatten her skin conductance graph at will and change her heart rate, to boot. Behaviorally, she changed as well.²⁹

In other cases, the feelings involved are not nearly so pleasurable, yet these illustrate the same principle: that movement within the mind, ie, a person's unified being, conditions psychosomatic plasticity. (The converse is that stultified feeling is tantamount to "thick" boundaries and a lack of plasticity.) Numerous examples of thin-boundary reactions to unpleasant stimuli are offered by behavioral neuroscientist (and intuitive healer) Mona Lisa Schulz in her book *Awakening Intuition*³⁰:

- A woman with multiple personality disorder had once been abused by her father. Only one personality "knew" about the abuse. "Whenever this personality emerged, burn marks would appear on the woman's arms. When she flashed out of that personality, the burn marks would go away."
- Another woman's skin would break out in large hives whenever she was around someone domineering. "Most of her problem involved her mother-in-law, with whom she had a difficult relationship. . . . Whenever she had a memory involving her mother-in-law, she would break out in hives."
- A still more unfortunate woman was subject to a barrage of verbal abuse (following episodes of physical abuse) from her husband. When she was thus attacked, "bruises and black-and-blue marks would appear on her skin in the very places where she had previously received bruises from her husband's beatings. . . . A psychiatrist watched the bruises appear on the woman's arms right before his eyes."
- When hypnotized, a woman proved able to raise blisters on the back of her left hand only and always in the same place. When questioned later, she indicated that "the area where the blisters had formed coincided exactly with an area of her hand that she had burned six years earlier with hot grease."

Healer Julie Motz has used the term “body haunting” to describe cases in which a person’s intense emotional experience is encoded in a powerful body memory that can arise many years after the original episode.³¹ I contend that her phrase—while not sounding terribly scientific—nonetheless depicts accurately what can occur within the model of the mind being brought to light by Pert and other PNI researchers. Held-in tension from traumatic events long past can continue to reside in individuals, and, if they are the thin-boundary type, this energy constitutes the storehouse for displays of psychosomatic plasticity.

HEART AS THE INTERCHANGE

When seeking to understand personality, science inevitably begins—and often ends—with the brain. Neuroscience, especially, assumes that neural activity is tantamount to our experience of self. However, another view is possible. Psychologist Paul Pearsall frames the perspective this way:

As you read these words, take one hand . . . and point to yourself. Where is your hand pointing? Most people find their hand touching the area of their heart. . . . No matter how important it thinks it is, the brain that is coordinating the pointing movements seems to know where a major component of the “self” it shares with the body resides.³²

Consider this alternative: that feelings may literally be at the center of who we are. The heart, which enables us to live by beating and pumping blood to every sector of our body (including the vaunted brain), is the bedrock of our existence, yet its processing occurs well below the threshold of consciousness. Neuroscience recognizes full well that the brain is an “energy hog,” using approximately 20% of all the blood and oxygen we breathe to nourish its 100 billion neurons.³³ However, it is less fully appreciated that the heart’s electromagnetic output exceeds the brain’s by a factor of 5,000 to 1.³² Surely this connotes that the heart’s function is vital. Research now suggests that not only is its communication with the brain two-way,³⁴ but that the heart’s electromagnetic output changes in tandem with the state of bodily feeling.³⁵

If the heart is literally and functionally at the center of feeling, and if the *degree of connectedness* within the mind is what determines psychosomatic plasticity, then we would expect thin-boundary persons who are on the receiving end of new hearts to evidence some remarkable changes in the aftermath of their transplant. This is exactly what Pearsall has documented. Consider the following accounts he and his associates have collected. In each case, information about the donor and recipient was verified by family or friends; additionally, the often striking personality changes noted *preceded* any contact with the donor’s family or friends. A sampling:

- A seven-month-old boy received the heart of a 16-month-old boy who had, tragically, drowned. Four years later, the donor’s mother met the recipient. “When [he] first saw me, he ran to me and pushed his nose against me and rubbed and rubbed it. It was exactly what we did with [our son].” The recipient’s mother reported that her son acted much differently in the presence of the donor’s mother: “He is very, very shy, but he went over to her just like he used to run to me when he was a

baby. When he whispered, ‘It’s okay, mama,’ I broke down.” Similarly, when the families went to church together, her son “let go of my hand and ran right to [the donor’s father]. He climbed on his lap, hugged him and said, ‘Daddy.’ We were flabbergasted. How could he have known him? Why did he call him dad? He never did things like that. He would never let go of my hand in church and run to a stranger. When I asked him why he did it, he said he didn’t. He said [the donor] did, and he went with him.”³⁶

- “It’s really strange, but when I’m cleaning house or just sitting around reading, all of a sudden this unusual taste comes into my mouth. It’s very hard to describe, but it’s very distinctive. I can taste something, and all of a sudden I start thinking about my donor, who he or she is, and how they lived.”³²
- After an appearance on a television program where he spoke about changes in a transplant recipient’s personality following surgery, Pearsall received a letter from a psychologist indicating that the man had received a new kidney and, “despite [his] dislike of spicy foods, now craves tacos and burritos and has taken a class to learn to speak Spanish.” The man added that he had “just found out [his] donor was a young Hispanic man.”³²
- “I never really was all that interested in sex. I never really thought about it much. Don’t get me wrong, my husband and I had a sex life, but it was not a big part of our life. Now, I tire my husband out. . . . When I told my psychiatrist about this, she said it was a reaction to my medications and my healthier body. Then I found out that my donor was a young college girl who worked as a topless dancer and in an out-call service. I think I got her sexual drive, and my husband agrees.”³²
- A 47-year-old white foundry worker received the heart of a 17 year-old black male victim of a drive-by shooting. He commented in an amazed tone, “I used to hate classical music, but now I love it. So I know it’s not my new heart, because a black guy from the ‘hood’ wouldn’t be into that.” However, according to the donor’s mother, “Our son was walking to violin class when he was hit. . . . He died right there on the street, hugging his violin case. He loved music, and the teachers said he had a real thing for it.”³⁶
- “When I got my new heart, two things happened to me. First, almost every night, and still sometimes now, I actually feel the [auto] accident my donor had. I can feel the impact in my chest. . . . Also, I hate red meat now. I can’t stand it. I was McDonald’s biggest money maker, but now red meat makes me throw up.”³⁶
- A 56-year-old college professor received the heart of a 34-year-old police officer shot while attempting to arrest a drug dealer. The recipient remarked, “A few weeks after I got my heart, I began to have dreams. I would see a flash of light right in my face, and my face gets real, real hot. It actually burns.”³⁶
- A nine-year-old boy received the heart of a three-year-old girl who drowned in the family pool. The boy’s mother reported: “The one thing I notice most is that [her son] is now deathly afraid of the water. He loved it before. We live on a lake, and he won’t go into the backyard. He keeps closing and locking the back door. He says he’s afraid of the water and doesn’t know why.”³⁶

- A five-year-old boy received the heart of a three-year-old boy who had fallen from an apartment window. The recipient took to calling his donor Timmy, saying “He’s just a little kid. . . . He got hurt bad when he fell down. He likes Power Rangers a lot, I think, just like I used to. I don’t like them anymore, though.” In fact, the donor’s name was Thomas, although his family called him Tim. Even more striking, according to the recipient’s mother, was that their family had only recently learned that Tim “fell trying to reach a Power Ranger toy that had fallen from the ledge of the window. [Our son] won’t even touch his Power Rangers any more.”³⁶

Pearsall found that the heart transplantation patients he interviewed seemed to have numerous personality traits in common, which he grouped under the label of “cardio-sensitive.”³² These attributes resemble both Hartmann’s description of the thin-boundary personality and Thalbourne’s characterization of high transliminality. To wit:

- Nearly all cardio-sensitives are female.
- Most reported a vivid, active fantasy life prior to their transplant.
- They are easily able to conjure up and share visual images.
- They are hyperalert to their environment.
- Many have allergies.
- Long before they became ill and had a transplant, most reported extensive dreaming and interest in the significance of their dreams. Following their transplant, most reported dreaming of their donor.
- Most say they are highly sensual and “tuned in” to their body. Many are athletes, musicians, and dancers.
- They are described by family members and friends as being “psychic” or “very sensitive” and are said to have showed this sensitivity long before their illness was diagnosed and their eventual transplant.

THE PERSISTENCE OF MEMORY?

Although I do not know whether anyone has attempted a systematic assessment, it seems equally possible to me that the personality traits of heart *donors* could condition the extraordinary perceptions reported above. As Pert and Motz have foreshadowed, could memories “encoded” in bodily organs be transplanted outside of the body at the demise of the individual who possessed them? There is some intriguing evidence that such might be possible—beginning with the following item drawn from the *Archives of Internal Medicine*:

A liver transplant may have saved the life of a 60-year-old Australian man—but it also nearly killed him. The liver came from a 15-year-old boy who had died from an allergic reaction to peanuts. But his nut allergy was never officially diagnosed, and doctors were unaware of it. So the day after the liver recipient returned home from the hospital, he ate a handful of cashews. Fifteen minutes later, he had a life-threatening allergic reaction. The man was rushed to the hospital, where he recovered after drug treatment. . . . Subsequent blood tests showed that he had developed an allergy to cashews, peanuts, and sesame seeds—the same allergies his donor had had.³⁷

This drama stemmed from an allergy that came from *someone else*. The organ of conveyance was the liver, which is not entirely surprising given that the liver plays a key role in the body’s metabolic process, storing various substances taken from the bloodstream and producing still other chemicals. It is worth pondering whether the heart—and other organs as well—may similarly be able to transmit an allergy (or, for that matter, an immunity) from donor to recipient.

Next, consider a fascinating finding about dissociative identity disorder, formerly known as multiple personality disorder. It has been demonstrated that one “personality” within an affected individual may have characteristics or conditions (eg, an allergy or drug reaction, migraine headache, right-handedness or left-handedness, even a different acuity of eyesight) *distinct from other personalities in the same individual*. A whole raft of bodily functions, including immunity, are thus influenced in quite distinct ways when an individual dissociates into discrete “personalities.”³⁰

Recall now my analogy of the mind as stream, continuously in motion. It has its sources (all the cells that furnish energy), it follows a course (via the nerve fibers and the bloodstream), and it flows into tributaries (the muscles and organs). If a person experiences an overwhelming threat and dissociation occurs, this dynamic is bound to be affected, with the energy associated with feeling “bound in” to organs and viscera. Later on, if a given body part is removed and undergoes transplantation (the ultimate form of dissociation, one might say), the energy bound in that organ—with all its accompanying characteristics and memories—could well be transferred to the recipient. Maintaining the stream analogy, one might envision memories as the leaves and pebbles floating along with the stream. Where the stream goes, they go. Where the stream pools, they *stay*, and, if a given set of tissues (a heart, a lung, a kidney, a limb) is removed and undergoes transplantation, the memories that are part and parcel of the tissue will go along with it.

Here is another intriguing for instance, which might now be explained according to this model. A woman, who had suffered from multiple personality disorder for years, developed a severe infection in her left arm that could not be cured. Ultimately, the arm had to be amputated. Following the amputation, the woman was no longer beset with multiple personalities.³⁰

Now, consider the extremely odd finding that unusual birthmarks (and, to a lesser extent, birth defects) have been identified in one third of children who claim to remember previous lives.³⁸ These markings are said to correspond to the location of wounds suffered by the deceased person whose life experience these children claim to recall. When the person was said to have died from a gunshot wound, for example, the child would often have *two* birthmarks corresponding to a bullet’s entry and exit. Along with a good deal of other evidence (particular phobias, unusual games played, and precocious interests among these children), Stevenson has proposed that previous lives may, at least sometimes, be remembered.³⁹

Reincarnation is a tricky concept because the word itself implies that an *entire personality*—encompassing everything about the deceased—has somehow been incorporated into a “new” body, and, furthermore, that the current person is an outgrowth, a follow-on, a natural extension of the previous personality (or

chain of personalities). The mechanism I am hinting at is much different. It is an embellishment of the *known, bodily processes* of stress, immobility, and dissociation. It encompasses the physical and feeling knowledge that is stored unconsciously when shocking, painful, or otherwise overwhelming experiences become traumatic, and the course of the emotional stream is diverted or dammed up. The energy conveyed will relate to the experience itself and the parts of the body most directly involved, comprising a virtual snapshot of what was being perceived at the time of the threat.

One might speculate that the persons most likely to apprehend such residual energy are of the thin-boundary type. A means of testing this proposition, at least indirectly, would be to administer Hartmann's Boundary Questionnaire—and this author's own Environmental Sensitivity Survey⁶—to three particular groups:

- people who have received organ transplants;
- children or young adults who claim to remember details of a previous life; and
- children who are gifted or prodigies.

With the first group, a start has been made by Pearsall, although his observations of “cardio-sensitives” are just that—observations, rather than the outcome of a survey specifically designed to illuminate the contributing factors. With the second group, Stevenson has raised some intriguing questions but, again, has not looked at Boundary issues (Personal correspondence with Dr. Ian Stevenson, May 19, 2003). With regard to the third group (child prodigies), attention has thus far focused almost entirely on the development of their considerable *mental abilities*—although an exceptional work on the subject, *Nature's Gambit*,⁴⁰ does devote a chapter to some quite riveting accounts of anomalous sensibilities manifested early on by two prodigies. The author of the study concludes that “this whole realm . . . is a significant part of the prodigy phenomenon” and one that merits further scrutiny.

CONCLUSION

As personality research evolves, we can expect that much greater attention will accrue to Boundaries as an indicator of biology-based differences among individuals. Similarly, as neuroscience delves further into such phenomena as hypnosis and the placebo effect, it is likely that the concept of psychosomatic plasticity will be taken up as a means for explaining how certain persons can effect remarkable changes in their physiology through “mere” suggestion. In the parlance of consciousness research, one could say that psychosomatic plasticity represents an “emergent property”—or logical next phase—of the explorations undertaken by Hartmann, Thalbourne, and others.

This author believes that the *dynamics of feeling* within the mind offer a fresh perspective through which to understand a variety of puzzling phenomena. The key is to appreciate that the brain and rest of the body are not only interactive but, in the final analysis, unified.

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