

# Chapter 16

## Principles of Memetic Therapy

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An understanding of memetic diagnosis should naturally lead to meme-oriented therapies. We discussed in the previous chapter that memetic diagnosis entails the identification of the *causes* of pathogenic meme replication. We discussed that the cause of the unchecked replication may a combination of induction of pathogenic memes by imitation or empathy, massive influx of memes from the environment due to sheer exposure, and/or resurgence of dormant pathogenic memes due to a weakening of the dominant memes.

Memetic therapy may be geared both to the cause of the replication as well as to the pathogenic memes themselves. In order to treat the influx of memes caused by either exposure to external memes or through empathy, one has to block the continuing entrance of the pathogenic memes into the brain, i.e., perception and induction of memes. This will also tend to prevent the weakening of the dominant, healthy memes.

### 16.1 Blocking the Entrance and Induction of Pathogenic Memes

How does one block the continuing infusion of pathogenic memes into the brain? An environmental change, including hospitalization, is a means of controlling the

memetic environment of the brain. Diversion of attention from the pathogenic memes in the environment is another method – including vacation, relaxation training, recreational activities, even sleep. Intersensory inhibition has been reported to be effective in reducing seizure-inducing stimuli in rats (Kramer and Adler, 1976). Judicious use of sensory deprivation may also be considered, but it may lead to unchecked replication of existing memes and hallucinations (Merabet et al., 2004).

When pathogenic memes are induced through empathy or imitation of a person, e.g., a charismatic leader, physical separation from that person may be therapeutic, i.e., separating the person from a cult or even incarceration as a means of separating a person from the pathogenic meme environment of a gang. Care should be taken, however, that the new environment is not equally pathogenic.

External memes enter the brain encapsulated in a sensory vehicle, i.e., as words, images, melodies, which consist of sensory stimuli, i.e., visual, auditory, olfactory, gustatory, and tactile (which also include temperature, pain, pressure, and vibration). As each sensory modality tends to attend to one sensation at a time, it should be possible to prevent the entrance of a meme by saturating the sensory modality in which the meme is substantially encapsulated. For example, if the pathogenic meme is in the form of an image, say that of Hitler, presenting the subject with another image that is attractive (likely to replicate), such as the image of a loved one or a relaxing scenery, may block the entrance and replication of Hitler's image and what it stands for.

Auditory and tactile stimulation may be similarly utilized, e.g., repeated playing of favorite song or relaxing music, tactile stimuli such as massage that can distract attention from the pathogenic memes and thence their replication. As there is plasticity and cross-contamination among sensory modalities, such saturation with nonpathogenic sensory stimulus may also block other forms of pathogenic memes (Shimojo and Shams, 2001; Violyentev et al., 2005).

## **16.2 Treating Memes in the Brain**

In addition to blocking the entry of pathogenic memes, memetic therapy should be geared to suppressing and/or eradicating the replicating pathogenic memes already in the brain. This may be accomplished by first identifying the pathogenic memes and their nature, identifying the components of the pathogenic memeplexes, and identifying their sensory capsules or vehicles, and neutralizing or suppressing them.

### ***16.2.1 Identifying Pathogenic Memes and Memeplex Components***

As discussed in the previous chapter on memetic diagnosis, an obvious way of identifying pathogenic memes is to listen to the patient. The complaints of the patient, and more importantly, the preoccupation of the patient, when verbalized, are the

pathologic memes that the patient experiences. They may be emotions, such as feeling blue and sad, anxious or angry. They may be thoughts, such as wishing to die, future is hopeless, etc. From the verbal communication (memetic emission) of the patient, one can also recognize the underlying memplexes, the schema or world view as well as the schema of the self, i.e., selfplex(es). Such memplexes may be “The world is a hostile and hurtful place and nobody loves me,” “I am not a worthwhile person,” “I feel this way because I am guilty,” “I am anxious because the FBI is watching me,” etc.

Asking specific questions can also elicit pathogenic memes, for example, “Do you feel hopeless about the future?” “Do you have any thoughts of suicide?” “Do you have feelings that others are trying to do harm to you?,” etc. As for empathy/imitation, one could ask “Do you know of anyone who had symptoms or feelings like yours?” “Tell me about people who are important in your life,” etc.

Free association is another technique that may be useful in identifying underlying memplexes, as some of the pathogenic unconscious memplexes may reveal themselves in disguised forms.

Empathy, i.e., firing of mirror neurons on the part of the clinician is another important method of understanding the patient’s memetic state and memplexes. What one is feeling is often what the patient is experiencing, and the thoughts (memes) that come to mind are also often induced by the patient’s memes.

Once the underlying memplexes have been identified, it is useful to consider the component memes of the memplexes or schemas. For example, the memplex, “I am not a worthwhile person” may consist of (1) sad affect (meme), (2) angry affect (meme), (3) experience of failure (meme), (4) negative bias in evaluation (meme affecting executive function), (4) hopelessness (meme). The memplex may be further buttressed by a recurring thought in the form of a voice (which may be a thought perceived as an inner voice, or frank auditory hallucination) that says “you are worthless” (meme that encapsulates itself in auditory sensation).

### ***16.2.2 Identifying Capsules and Vehicles***

In the above example, we observed that a memplex may recruit a sensory modality that augments its replication, i.e., the voice that repeats itself, “you are worthless!” Other forms of capsules and vehicles may be identified, such as an image of oneself being ugly and diseased, a thought that the head may be filled with dirty thoughts, may be putrefied, etc. Such thoughts (memes) may multiply and gain further strength, becoming a delusion, e.g., “My brain is filled with maggots,” then “I can feel the maggots squirming about in my brain!”

The memes may travel in vehicles, such as written words, drawings, and paintings. Words and drawings can recreate the original memplexes in the brains of those who read or see them, as in Munch’s famous painting, *The Scream*.

It should be made clear from the outset that the *vehicles* that carry memes are memes themselves but that these memes serve the function of embedding and transporting other memes that form the content of the vehicle.

Melody and rhythm are readily available vehicles for memes to travel, thus songs and verses have been used throughout history to carry various memes and memplexes, most of them not pathogenic. Nevertheless, some pathogenic memes, such as that of violence, may be carried in some rap music and others. Note that some memes may co-opt the melodies of familiar and beloved songs to camouflage themselves and to infiltrate unsuspecting brains.

An example is the melody of the English folk song Greensleeves from the sixteenth century, that was co-opted into the Christian hymn, the Manger Throne, by William Dix in 1865. Parts of the two verses are presented below:

Greensleeves	Manger Throne
Alas my love you do me wrong To cast me off discourteously; And I have loved you oh so long Delighting in your company. Green sleeves was my delight, Green sleeves my heart of gold Green sleeves was my heart of joy And who but my lady green sleeves	What Child is this who, laid to rest On Mary's lap is sleeping? Whom angels greet with anthems sweet, While shepherds watch are keeping? This, this is Christ the King, Whom shepherds guard and angels sing; Haste, haste, to bring Him laud, The Babe, the Son of Mary. Why lies He in such mean estate, Where ox and ass are feeding? Good Christians, fear, for sinners here The silent Word is pleading. Nails, spear shall pierce Him through, The cross be borne for me, for you. Hail, hail the Word made flesh, The Babe, the Son of Mary.

### 16.2.3 Neutralizing Capsules and Vehicles

Once the capsules and vehicles of pathogenic memes have been identified, methods should be devised to neutralize them. Unfortunately, specific techniques of doing this have yet to be developed. Devising such techniques should be relatively easy in principle. For example, if a particular melody carrying a pathogenic meme can be identified within the brain, it may be possible to feed into the brain the inverse of the sound wave of the pathogenic meme, thus completely neutralizing it. So with a counter-rhythm. It may also be possible to co-opt the pathogenic meme carrying sound or melody by substituting the words that are antidotes of the pathogenic memes. Thus, an inner voice repeating, "I am a bad person," may be substituted by an actual repetition of the words, "I am a good person."

As for visual stimuli such as images, the repeated presentation of a substitute image by itself, or paired with the pathogenic image initially and then presented by itself, may neutralize the pathogenic image.

Words as vehicle are more complex but could still be broken down to syllables and letters with attendant visual and sonic qualities that may be amenable to sensory neutralization. Nonsense words or antonyms that are look-alikes or sound-alikes may also be utilized.

#### ***16.2.4 Deconstructing and Suppressing Memes***

The content of the memes and memplexes, in addition to the exterior capsules and vehicles, may be also deconstructed and subject to suppression. In this case, it is important to recognize that it is unlikely that the meme as memory can be completely eradicated, but rather the goal of therapy would be to suppress its replication.

Deconstructing a memeplex may go like this:

What goes into “I am worthless”?

It involves I + am + worth+ less

What is “I”? –I am John Smith, I am a clerk, I am a husband, etc.

What is “am” – exist, identify with, alive, not dead, etc.

What is “worth”? – good, rich, healthy, can be relied on, do the work, etc.

What is “less”? – no good, not meeting the criteria, not deserving, etc.

The treatment may involve feeding back the following memes for each memetic component.

For “I”: I am John Smith, I am a clerk, have been *for 5 years*, I am a husband with two children, *good children, a good father*

For “am”: *I exist, am alive, am needed as husband and father,*

For “worth”: *I am a good worker, can be a good husband, can be a good father, in fact, am a good father*

For “less”: *Maybe not rich, maybe not as good as I could be because I am depressed, I can be good when I get better, I can be Excellent!*

#### ***16.2.5 Augmenting Protective Memes***

Meme-oriented therapy should also be geared to enhancing protective memes as well as neutralizing pathogenic memes. The protective memes include non-autocratic selfplexes, memes that enhance self-esteem, memes that induce relaxation and enjoyment, memes that facilitate gratifying interpersonal interaction, etc. Relaxation training, music therapy, massage therapy, etc., can both attenuate pathogenic memes and enhance protective memes. Direct meme infusion through hypnosis or experience of caring by the therapist might be other means of strengthening protective memes.

### 16.3 Conventional Meme–Directed Therapies

Certain conventional therapies are clearly meme directed. In fact, most psychotherapies are meme directed in the sense that they wind up endeavoring to change the memetic content of the person through meme exchange, i.e., talking. Specific psychotherapies will be discussed in Chapter 18.

### 16.4 Need for Novel Therapies

Existing psychotherapies have been either geared toward the thoughts (cognitive therapy), behavior (behavioral therapy), or to conflicts arising from basic drives and inhibitory forces (psychodynamic therapy), or combinations of the above.

The recognition of gene  $\times$  meme interaction and the role of stress that arises at least in part from memetic conflicts in mental illness provide us with a new perspective in therapy.

Psychiatric therapy should be geared toward both genes and memes.

(1) Gene-oriented therapy

This should take into account the epigenesis of the person, i.e., what physical and memetic stresses in early life caused which genes to be turned on or off resulting in the vulnerability to mental illness, and how can we reverse it? Gene-oriented therapy is not limited to drug therapy. In fact, there is evidence that a nurturing environment in adulthood and psychotherapy may be effective in reversing the effects of early stress on specific genes and thus the micro- or macro-morphology and function of the brain.

(2) Meme-oriented therapy

The recognition that memes interact with genes, and that memes are actual functional neuronal units that may have various components such as thoughts, beliefs, sounds, imagery, colors, texture, and emotions opens up a whole new world of meme-oriented therapies.

- (a) Existing *multimodal therapies* such as music and dance could be integrated with psychotherapy with a common memetic theme. In addition, novel therapies may be developed that may be geared to modality-specific components of the pathogenic meme, e.g., sound, image, emotion. Deconstructing a memplex may lead to specific antidotes for its components. Such an antidote may be the infusion of an incompatible idea encapsulated in a catchy tune, or it could be an inverse sound wave to an existing tune that carries a pathogenic meme.
- (b) Novel therapies geared toward a resolution of *meme–meme conflicts* could be devised. Such conflicts could be identified utilizing novel techniques such as a meme scan (Chapter 15). New memes that would either harmonize or buffer the conflicting memes could be infused encapsulated in

imagery or melody, and the patient may be prepared to be more receptive to meme infusion through relaxation, hypnosis, or medications.

(c) *Avatars and Virtual Reality Techniques.*

Another novel meme-oriented therapy is the use of *avatars* as models of imitation. Avatars are digitized images of oneself, and such avatars may be programmed to look and behave in certain desired ways in virtual reality that the subject observes. For example, the avatar may be more slender than the subject, more assertive, and may exercise. After seeing the avatar, subjects have been shown to be more assertive, and more likely to exercise (Bailenson, 2006; Bailenson et al., 2008; Platoni, 2008; Taylor et al., 2008; Yee and Bailenson, 2007). In this memetic therapy, one actually imitates oneself projected into the future (virtual reality).

Virtual reality has already been used to desensitize patients with phobias. Patients could also practice job interviews, giving presentations, etc., using virtual interviewer or virtual audience. These are examples of memetic therapy as the subject practices different memes (facial expression, posture, speech, etc.) in virtual reality. Through such practice, the patient may choose the appropriate memetic constellations to present as the selfplex for the situation.

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