

AUDIO SCRIPT

[F1: Interview; M1: Interviewee]

F1: Good evening, everyone, and welcome to Mind Over Matter. Tonight, my guest is psychologist Dr. Brendan Parker, and we're talking about the power of words. Welcome to the program, Dr. Parker.

M1: It's a pleasure to be here, Donna.

F1: We all know the saying that sticks and stones will break my bones but words will never hurt me. I assume you disagree with that sentiment, Dr. Parker.

M1: I certainly do, Donna. In fact, the opposite is true. Words are extremely powerful, and it's not just a theory, it's a scientific fact. A single word can change our mood for the entire day. For example, just this morning, I was happily walking my dog in the park. It was a beautiful, sunny morning. I was enjoying nature. Suddenly, a cyclist came from behind and shouted at me to get out of the way. She was terribly rude. My good mood vanished and I felt angry and upset. Five minutes later, I passed an old acquaintance who wished me a good morning and said how delighted she was to see me. That friendly interaction restored my good mood. So, words are more than just a means of communication. They can influence our mood, shape our beliefs, and ultimately change our behavior.

F1: Besides affecting us psychologically, words can affect us physiologically, too, can't they, Dr. Parker?

M1: They certainly can, Donna. In a recent study, neuroscientists saw the effect of words on participants' brains using an MRI scanner...

F1: That's a machine that takes pictures of the brain...

M1: Yes, it can also make a videotape to record changes in the neural activity of the brain over a period of time. So, for this study, the word "no" was flashed onto a screen for less than one second. Immediately, dozens of stress-producing hormones and neurotransmitters were released in the participants' brains. These chemicals interrupt the normal functioning of the brain. They affect logic, reason, language processing, and communication.

F1: Wow, the word "no" has so much power?

M1: Yes, and that's just *seeing* a negative word. *Saying* and *hearing* negative words is even more powerful. According to authors Mark Waldman and Dr. Andrew Newberg, "Negative words can damage key structures in the brain that regulate memory, feelings, and emotions." Negative words can also disrupt our sleep, our

appetite, and our ability to experience long-term happiness and satisfaction. Waldman and Newberg believe that a single word has the power to influence the expression of genes that regulate physical and emotional stress.

F1: So negativity can affect both the speaker and the listener?

M1: That's right, Donna. Plus, just *thinking* negative thoughts can stimulate the release of destructive neurochemicals in the brain. Worrying about our health, work, or finances, for instance, can really be quite bad for us.

F1: But it's unrealistic to *never* worry about anything, isn't it?

M1: You're right. It's normal to worry, and I believe that a certain amount of worry is good for us. Just as there's "good stress," there's also "good worry." As Dr. Martin Rossman said, "Worry not only helps us anticipate danger, it helps us solve problems." Worry goes hand-in-hand with imagination. When we worry, we imagine all the bad things that might happen in the future. Often, we have a valid reason to worry. For example, if our company is laying off workers, we worry that we'll lose our jobs. But research shows that over 85 percent of things people worry about never happen.

F1: That's a reassuring statistic, though I worry about the other 15 percent! But seriously, my philosophy is to try not to worry about things I have no control over, but I'm not always successful. Do women worry more than men, Dr. Parker?

M1: Yes, as a matter of fact, they do. Studies show that women are twice as likely as men to be diagnosed with an anxiety disorder. Scientists aren't sure why, but it could be related to hormones. The gender difference could also be evolutionary. The environment is relevant, too. Societal expectations tend to affect women more than men.

F1: Now, back to the power of words. What about *positive* words, Dr. Parker. Do they have the opposite effect of negative words?

M1: They do to a certain degree, Donna. Positive words, such as "peace" and "love," can strengthen the brain's cognitive function. However, in some ways, positive words are not as powerful as negative words. Psychologists often tell their patients to think positively; to turn negative thoughts into positive thoughts. But the brain barely registers positive words. We believe this is because the brain is hard-wired to respond to negativity because it implies danger and a threat to survival. So, the brain reacts to negativity, but not as much to positivity.

F1: Well, this has been very interesting, Dr. Parker. Thanks for coming in today.

M1: Thank *you*, Donna.