A New Improved Universally Accepted Official Definition of Biofeedback: Where Did It Come From? Why? Who Did It? Who Is It for? What’s Next?

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The Task Force on Nomenclature was commissioned in 2007 by the Association for Applied Psychophysiology and Biofeedback, the Biofeedback Certification Institute of America, and the International Society for Neurofeedback and Research to develop an updated official definition of biofeedback. The article describes the task force participants and the process and publishes the task force’s definition of biofeedback, which was approved by the three participating professional organizations.

Starting with an apology is not a favored way of starting an article, so I won’t. I’ll wait until later, but this is just to alert readers that it is coming. For those who have known me a very long time, know that this is not my first apology and probably … Well, using a rare dysfluency for me, “ya know …”

The official definition of biofeedback, well known by now, I hope, started its embryonic development in February 2007 when the board of the Association for Applied Psychophysiology and Biofeedback (AAPB) approved the creation of a task force to clarify the term biofeedback. One would have thought that with four decades since the term was coined by some founders of the Biofeedback Research Society, 40 years of professional membership organizations Biofeedback Research Society, Biofeedback Society of America, and AAPB, 26 years since the Biofeedback Certification Institute of America (BCIA) started, and the emergence of countless publications (including several major textbooks, and numerous Web sites) that a task force for defining the term would not have been necessary. There had been and were many definitions, with many common and seemingly agreed-upon elements. Ordinarily, slight variations in the definition do not have significant impact or importance.

One issue or problem that arises periodically, as it did in the recent past (before 2007) and might in the future, is organizations, businesses, professionals, or others using the term biofeedback in ways in which there would be or could be effects considered undesirable, to various degrees, to wider communities of professionals who rely on credible and agreed-upon definitions. Thus, one major rationale for forming this task force was to clarify inclusionary elements in definitions agreed upon by major professional organizations with the most experience and expertise in this field—the AAPB, the BCIA, and the International Society for Neurofeedback and Research (ISNR).

A second major rationale was to clarify exclusionary, contradictory, and/or inconsistent elements in the use of the term and associated activities (implied or otherwise) by some individuals and organizations. It was assumed that such misuses of the term in some cases could be due to misunderstanding and insufficient consultations with more senior and highly credible authorities and organizations in this field.

Next came the challenge for the AAPB board with President Alan Glaros, PhD, and for BCIA and ISNR. How to proceed with the development of such a task force? Who on earth could they convince to take on such an important and challenging and complex task? Where could they find someone with seemingly nothing else to do with his/her time, but who could pull off this incredible task and bring it to fruition. I’m grinning. I hope you, as a reader, are too. Well, ya know who they conned and, by the way, it was not an easy con. The person resisted forcefully. “You must be kidding,” I think he said. The field already has the best definition there could be. It is published in that book—ya know the one—by old man Mark S. Schwartz, the guy at Mayo. By the way, whatever happened to him? I heard he retired from Mayo! Finally!

Hmmm. “Retired. Maybe he has time. Maybe he would … Maybe … Let’s go after him! But who will ask him? You know how difficult he can be sometimes. Sure, he is very funny too, but he can be grouchy too. Remember
what happened when he tried to put together a definition of *applied psychophysiology*. It raised some eyebrows. Yeah, but at least it filled an entire issue of our journal. Let’s give him another chance. This time, make sure he surrounds himself with lots of terrific, bright, credible people in our field who can help. So who can ask him that he can’t refuse. I know … Fran for one. He can’t turn her down, ya know. OK, and Alan, you ask him. He likes you and respects you! OK, Fran and Alan. You do it.”

Soon after that imaginary dialogue, which I assume is only a slight paraphrase from what actually transpired, they asked him—ya know, MSS, who said something like, “Are you kidding me? No! But thank you. Tell me more. Why again? Let me think about it.” And, after a few days of heartrending contemplation (remember, this took place 4 years after his quintuple coronary artery bypass surgery—yes, I had to mention this), he said, “OK, but I need a lot of help.”

To which Fran and Alan replied, “Of course you do!” The end.

Oops. No. There is more.

But seriously folks, nearly all of the members of the Task Force on Nomenclature, as it was called, were recommended or appointed by the participating organizations, AAPB, BCIA, and ISNR. I added a few. Later, others entered as contributors to later phone and email phases.

Crucial to getting started and managing the process were ex-officio/administrative participants:

- Francine Butler, PhD, executive director of AAPB and BCIA
- David Strumph, new transitioning executive director of AAPB and BCIA

The members of the task force and consulting contributors that I recall making the most frequent and most substantive contributions were, in alphabetical order:

- Thomas Collura, PhD
- Aubrey Ewing, PhD
- Alan Glaros, PhD, ex-officio
- Cory Hammond, PhD
- Donald Moss, PhD
- Andrea J. Sime, LCSW, MSW
- Sebastian “Seb” Striefel, PhD

There were others who participated and contributed via emails and phone conferences associated with a series of “GoToMeeting” meetings arranged by David Strumph:

- Cindy Kerson, PhDC
- Judy Crawford
- Barry Sterman, PhD

Much progress was made from summer 2007 until the end of the year with email interchanges among several of the members of the task force. We reviewed the detailed elements of dozens of existing published definitions from books and Web sites in order to find the common elements and exclude some others. A review of these many dozens of elements is beyond the scope of this article.

The process continued with multiple reviews by various members of the task force. I lost count of the number of drafts, but in one email message to Aubrey, I did mention that I thought this was no. 9999, so I’m pretty sure there were thousands of drafts.

Some of the GoToMeeting meetings included audio input only, such as from people driving through rain and snowstorms at night and barely able to hear the rest of us due to the thunder in the background and, I think, screams from pedestrians and other drivers. Was that you, Don Moss?

One of the early definitions derived from all these meetings was too complicated and thought by some as too long and complex for the public. We were reminded by Aubrey Ewing that the final iteration will be used in textbooks, legal proceedings, and legislative and congressional testimony. Furthermore, it would be quoted to the media, used by practitioners trying to obtain payment from third-party payers, and in advocacy efforts to expand Medicare and other third-party coverage. And, very important—perhaps most important—the definition would be used in educating the consuming public in order that they make an informed decision about their health care.

Thus, we needed a professional definition that could competently be used for position statements about claims by companies and organizations that use the term *biofeedback* in ways that are in distinct disagreement with AAPB, BCIA, and ISNR.

Thus, it was partly back to work to develop a generic definition that would be much shorter, accurate, sufficiently complete, useful, and easily understandable for a wide demographic of users that included the general public as well as professionals. We considered using hyperlinked explanations for the public if needed. For example, we had terms and phrases in an earlier version such as “non-pharmacologic,” “may or may not be aware.” However, the goal was to develop a definition that would work even without hyperlinked explanations.

This goal was deemed the higher priority. Other, more involved, versions could follow later if needed.

There were many issues and questions raised and discussed at various stages of this process. Some are noted here only to illustrate the complexity of the process (it was
not as easy as it might seem to some). These issues and questions included

- What are the implications for developing multiple definitions?
- What are the implications for developing a set of exclusionary elements?
- How to manage the fact that some professionals use the term when referring to simple devices (e.g., paper in front of the mouth during respiration)?

There are multiple current professional cases, independent of the charge or focus on this task force, that are pending resolution and that conceivably could be affected by the conclusions of this task force and/or might have some influence on its deliberations. The task force was mindful of these cases and potential influence and proceeded independently of them.

After further review and editing by several task force members, the final agreed-upon version was submitted to the three executive boards for their review and approval. After all, we did this at the behest of these boards. We understood that they could turn the task back to us for modification, modify our conclusions/product, or constitute a new task force with a new chairperson. No one wanted any of these outcomes.

The final definition, now available on all their Web sites and in their publications is as follows:

Biofeedback is a process that enables an individual to learn how to change physiological activity for the purposes of improving health and performance. Precise instruments measure physiological activity such as brainwaves, heart function, breathing, muscle activity, and skin temperature. These instruments rapidly and accurately “feed back” information to the user. The presentation of this information—often in conjunction with changes in thinking, emotions, and behavior— supports desired physiological changes. Over time, these changes can endure without continued use of an instrument.¹

Acknowledgments

With apologies and belated appreciation to the Task Force on Nomenclature and the Executive Boards of the AAPB, BCIA, and ISNR. I am sorry for this very belated thanks to all those who contributed and patiently put up with the process and thousands of emails, meetings, and iterations. I am appreciative and respectful to all of you for again rising to the occasion for the field of biofeedback and contributing so importantly.

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¹ Approved May 18, 2008, by Association for Applied Psychophysiology and Biofeedback (AAPB), Biofeedback Certification Institute of America (BCIA), International Society for Neurofeedback and Research (ISNR).