

Rise of Neurocinema: How Hollywood Studios Harness Your Brainwaves to Win Oscars

BY [Kevin Randall](#) Wed Feb 23, 2011

One thing you aren't likely to hear Sunday night from the [Oscar](#)-winning producer after accepting the trophy for Best Picture: "I'd like to thank my neuroscience partners who helped us enhance the film's script, characters, and scenes."

It's not that far-fetched, though.

A sizable number of [neuromarketing](#) companies already brain test movie trailers for the major studios through fMRI, EEG, galvanic skin response, eye-tracking and other biometric approaches. For now, the test data helps the studios and distributors better *market* the movie.

But what about using brain feedback to help *make* the movie?



An trailblazing few firms and studios have delved into the upstart practice of "neurocinema," the process of using neurofeedback to help moviemakers vet and refine film elements such as scripts, characters, plots, scenes, and effects. Princeton University psychology professor [Uri Hasson](#) coined the term "neurocinematics" based on an fMRI study, in which he concluded that certain types of films (e.g. horror, action, sci-fi) produced high activation scores in the amygdala region of viewer subjects' brains, the part that controls disgust, anger, lust, and fear. Hasson asserted that horror filmmakers can potentially control viewers' brains by precisely editing their films to maximize amygdalic excitement and thus "control for" buzz and success at the theater.

[Stephen Susco](#), who wrote the \$187 million grossing horror movie *Grudge*, is not a practitioner of

neurocinema. But he tells *Fast Company* that he sees its growth as part of the "natural evolution of studios trying to maximize profit while making the upstream development process more scientific, less based on just experience and instinct."

Other filmmakers seem divided.

Independent filmmaker, [Peter Katz](#), told *Fast Company* about the studios' frustration with sketchy focus groups full of viewer respondents who "don't really know or can't articulate or even remember how they feel about a movie or scene." On the other hand, Morgan Spurlock's upcoming film, [The Greatest Movie Ever Sold](#) "makes fun of studios' growing reliance on marketing, including trailer testing via fMRI brain scans, as a way to supposedly flop-proof films and bolster the odds of a blockbuster.

The first time "Academy Awards" appeared in the same sentence with "neuromarketing" was probably a little over a year ago.

Last year's Oscar-decorated director James Cameron had told *Variety* magazine during the making of the epic hit *Avatar* that "a functional-MRI study of brain activity would show that more neurons are actively engaged in processing a 3-D movie than the same film seen in 2-D."

The neuromarketing firm [MindSign](#) was so excited by Cameron's reference they offered him "exhibition" (free) services including fMRI brain scans of subjects exposed to *Avatar* trailers (see below). And *Avatar*, like many modern big-budget films, appears to have been strongly fortified by neuromarketing trailer testing, which uses biometrics to measure and record viewer brain responses to different trailer scenes and sequences.

Unlike mainstream neuromarketing companies, MindSign has a niche focus on movies and trailer testing. Its founders used to work for Dreamworks and Sony and own one of the few fMRI machines used in neuromarketing. There is plenty of debate and rhetoric among competing firms about the best technologies for brain measurement. fMRI is considered reliable and brain in-depth but the machines are bulky, expensive, and preclude a real-world shopping context. [NeuroFocus](#), which bills itself as the world leader in neuromarketing, employs EEG devices that are worn as

headsets by viewers in the theater for movie and trailer screenings. [Emsense](#) distributes a "lighter" version of these headsets to panels of respondents which results in a larger sample of test subjects.

Still and all, neurocinema does not seem to be widely practiced by the major Hollywood studios. When *Fast Company* inquired for this story, marketing executives from five production companies behind films nominated in the Best Picture category declined comment or claimed no use or knowledge of neurocinema. 20th Century Fox, which distributed *Avatar*, declined to participate in this story. MindSign was reticent to disclose client names in our interview. The neuromarketing consultants and Hollywood filmmakers we did speak with also acknowledged that the studios are intensely competitive and notoriously tight-lipped, even about trailer marketing.

While he refused to discuss specific clients with *Fast Company*, Dr. A. K. Pradeep, CEO of NeuroFocus, revealed, "as a sneak peak," some observations based on commercial neurocinematic projects. He's animated in talking about the budding field as a film industry "game-changer" in the next few years. Pradeep works with leading studios in both the US and India and thinks Hollywood is chasing Bollywood on neurocinema.

He foresees convergence between games (some of whose makers are long-time NeuroFocus clients) and neurocinematic films. Multiple if not infinite versions of one film with myriad story twists and endings will be produced and consumed. Netflix and Facebook will play a big part in film "personalization." "Real-time instant consumer brain response-based personalization will create true dynamic modifications of the same movie and afford endless delight to consumers."

(The trend of rapid-fire versioning films to indulge movie fans was highlighted recently when Paramount's Insurge Pictures announced they were releasing a second, extended version of Justin Bieber's [Never Say Never](#) 3-D concert documentary just two weeks after the first. "The narrative doesn't begin or end in the movie theater anymore," John M. Chu, the film's director, told *The New York Times*.)

While Spurlock, for one, is fascinated by the ascending influence of neuromarketing, his film is all about (and funded by) product placement. NeuroFocus claims a more

scientific form of the craft—"product integration"—measured to pinpoint moments of maximal attention, emotional engagement, and memory movement. Products and services are then integrated into the movie at these precise points of highest neurological engagement. There is measurable and justifiable value to the marketer, and clear defined value to the movie maker."

NeuroFocus is also ratcheting up work with Bollywood companies on a new business model for the film industry that is about more than getting butts in the seats and doing some societal good. "Every paid-for product placement sponsorship has an accompanying pro-bono social message placement. The end client teams up with their charity or social message of choice and convinces the studio that both must be done to underwrite the effort," Pradeep says. MindSign co-founder Philip Carlsen says the business side of Hollywood is excited about the potential of neurocinema. "The producers love it. I mean, spending \$100,000 on a scientific, neurological method to help make their \$350 million investment pay out is a no-brainer," he says.

Just as with the neuromarketing of soup or cars, there are challenges to the effectiveness and acceptance of neurocinema. Neuroscientists cannot create ads or make movies. And the debate continues over conflicting technologies and standards, from Madison Avenue to Hollywood. The equipment and studies tend to be costly and can't really replicate the real buyer and viewer world. There is the predictable backlash from consumer advocates over "brandwashing" and mind control. In the case of Hollywood, many writers may feel that neurocinema is writing them out of the script ("I get hate mail from the writers," says MindSign's Philip Carlsen). Neurocinema projects may in fact be more useful in some genres (action/adventure/sci-fi: *Avatar*?) than others (drama: *The King's Speech*).

So while it's highly unlikely Sunday night that the Oscar-winning producer will thank a neuromarketer or will have employed neurocinematics (at least publicly) to make this year's Best Picture, it does appear that neuromarketing is creeping further into movie-making. Pradeep's vision that "brainbusters become blockbusters" may not be that far-off.

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