Science is the Story in 'Lie to Me'

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Robert Levenson (left), Paul Ekman and Josh Singer

A bit of Hollywood came to the APS 21st Annual Convention. APS Past President Robert Levenson moderated a fascinating discussion of how science becomes television by APS Fellow and Charter Member Paul Ekman, whose work on emotion and facial expression is the basis of the Fox TV show 'Lie to Me,' and Josh Singer, a writer/producer from the show.

From Science to Scintillating

Although clinical psychologists and psychiatrists have been featured on television for decades, 'Lie to Me' is the first fictional show (at least in Levenson's memory) to feature a lead character who is a psychological scientist – Dr. Cal Lightman, an emotion and expression expert called in by law enforcement agencies to use his skills to solve crimes.

Ekman was first approached four years ago by the well-known producer Brian Glazer after Glazer had read a *New Yorker* story about Ekman's work by Malcolm Gladwell (of *Tipping Point* and *Blink* fame, as well as a past APS convention speaker). Glazer told Ekman he was fascinated by his research and wanted to do a show, but he had to find the right people. A year or two later, Glazer called again, with the news that he was moving ahead with the show under producer Sam Baum. Ekman was pleasantly surprised to learn that Baum had read much of his work ("More than my kids!") and took the science seriously. But, Ekman admitted, by this point the show was going to happen with or without him. It was really just a matter of whether or not he wanted to help them do it right. Singer, who had previously worked on 'Law and Order: Special Victims Unit' was also convinced of the show's merit by Baum, who introduced him to Ekman's work and the concept of the show.

'Lie to Me' falls under the umbrella of procedural television, meaning that although there are overall character arcs and relationships, each show includes a mystery plotline that gets wrapped up by the end of the episode. The writers must seamlessly blend this story with intriguing bits of science, while not forgetting about the character piece. For example, one episode Singer wrote focused on coercive rape in the military — when subordinates sleep with a superior officer under threat of professional repercussions if they don't. Singer read an article about coercive rape in *The New York Times* and immediately thought that it would make a great episode. It involves complex relationships, the drama and pomp of the military, and was an emotionally compelling issue not many people were talking about. He combined that with research about reflectors — for example, emotions women show when watching another woman tell a story of rape (Ekman is not 100 percent sold on this research, but recognizes that it is very dramatic) — and with a developing mentor/mentee relationship among the characters to create 42 exciting minutes of television.

Paul Ekman

Asked by Levenson whether the show's recipe was typically "start with Ekman, add in some drama" or "start with drama, add in some Ekman," Singer admitted that with all these pieces it is often easier to start with a certain procedural story idea (like a rape scandal) and insert appropriate science rather than vice versa. But they have done it the other way around. For example, the writers loved the idea of masking smiles — the fake smiles we all make when we aren't really happy, but want to pretend that we are. To use this, they developed a story line revolving around a wedding, a place with bountiful opportunities for masking smiles.

So, what's Ekman's role in all this? Early in the production of the show, Ekman spent a few days on set but was bored by the repetitiveness of the shooting process. Although life on set may not be for him, Ekman reads every script before it is shot and advises the writers on the science included in the episode. The show's writers are constantly balancing on the line between robust science and dramatic television. Some concepts may be perfect for a certain storyline or have a great visual component, but they are not fully backed up by research — they may be based on more limited clinical observation or unreplicated studies. To expand on the science used in the show and address times when devices used in the show may not be 100 percent accurate, Ekman writes a weekly blog, "The Truth about 'Lie to Me'" (http://fox.com/blogs/lietome).

Ekman also assists in ensuring that the specific expressions he and his colleagues have studied are actually portrayed in the show. Even for trained actors, professionals at conveying emotion, getting just the right combination of eyebrow contraction, glaring eyes, and momentary lip narrowing can be very challenging, especially for micro-expressions that are generally subconscious. After one episode included a notably wrong chin thrust, Ekman stepped in and began taping video tutorials for the actors so that they can perfect their performance.

Lying in the Real World

Because the show is based on science, the concepts it touches on have real world implications. Ekman and Singer discussed that once you know how to read expressions, you can't just turn it off. Singer now notices his girlfriend's chin thrusts, a gesture associated with anger. He follows Ekman's advice of sometimes trying to engage the person, but generally trusting what they say, not what emotions they leak (a policy Ekman sticks to except when engaged professionally, when he switches his default to suspicion). There is power in being able to read others' emotions. Lightman's character regularly lies to elicit reactions and gain information. For Ekman, this practice is morally reprehensible, but, he noted, it is acceptable in our justice system in many instances — for example, information gained after lying to a suspect is admissible during a trial.

Over the first season, 'Lie to Me' expanded from its initial motif as a crime drama about a "human lie detector" to a show that explores the real world implications of Ekman's research. Lightman is able to get information from suspects by reading their emotions. Ekman routinely trains law enforcement officials in this skill and teaches them that if a suspect doesn't want to talk, they should talk to him or her and read the reactions. But what does this mean for civil rights? Should suspects be offered a mask, in addition to a lawyer, when they are informed of their rights? In another plot line, Lightman's team based decisions on the stereotypical facial expression of people about to perform a violent act. But how would that play out in real life? How could law enforcement occur based on predicted rather than actual behavior? Does reading emotions invade a person's privacy? Would it be okay in certain situations, like

an airport waiting area, but not others?

Future courtrooms may someday be able to answer those questions, but for now psychological scientists can enjoy watching one of their own, albeit fictitious, as he uses his skills to solve the world's problems, one episode at a time.