

# Co-creativity

**Charles Young**, Ameritest, explains how cognitive science sheds light on emotional responses to advertising

**I**N ALL ACTS of perception and communication, emotion comes first and thought second. An intriguing scientific argument for this proposition has been proposed in a recent book, *The First Idea*, by Stanley Greenspan and Stuart Shanker, experts in child development and evolutionary science. Newborn babies experience the world emotionally before they learn any words, ideas or rational concepts.

According to these authors, the heart of the mysterious processes by which humans learn to think and communicate lies in that intimate space between mother and child, where a baby looks up into mother's face and the mother looks down into baby's face. In this loving space the first gifts of thought and reason, of language and culture, are given and received.

## Cause and effect

A baby a few weeks old learns the laws of cause and effect by discovering that he can make mummy smile by smiling first. In that interface, mutual readings take place where the newborn begins to learn what those inchoate feelings mean and how to think about them.

This pre-verbal search behaviour is driven by unconscious emotions and sensations. This visual learning process between an infant and a caregiver is described as a 'negotiated process of co-creation'.

Screen-to-face communication is much like face-to-face communication, particularly for close-up computer or TV screens. That is why this idea of the co-creative process is relevant to understanding how advertising works. From the beginning, humans have an innate, biological urge to read other human faces. It's why most magazine covers carry faces.

One of the most important recent discoveries in cognitive neuroscience is the existence of mirror neurons. Basically, a mirror neuron is a neuron that fires both when an animal observes an action performed by another animal and when an animal performs an action. Overwhelmingly visual, these neurons 'mirror' the behaviour of another animal.

They are the biological basis of how we learn by watching others.

## Mimicry

Through the play of mimicry, the developing child learns to read and then express the inner life of emotions. Body language, and specifically the sensitive movements of the face, is our first and most important language for communicating emotions. At the other end of the reproductive cycle, our desire for emotional communication explains why, unlike other animals, humans make love face to face.

The complex musculature of the face provides the machinery for expressing six basic human emotions from which all others are derived, like the primary colours on a colour wheel. Scott McCloud in his book *Making Comics* shows in cartoon form how graphic artists mix different facial expressions to move us emotionally with a few strokes of the pen. McCloud goes on to show how, through carefully chosen sequences of a few frames, emotions can be turned into stories that give us new insights into the human condition and how the world works.

In his book on how to tell a story in film, Robert McKee describes the 'beat' as the 'fundamental unit of film structure'. McKee is an actor as well as a writer, and his definition is from an actor's perspective: the beat refers both to verbal and non-verbal give-and-take between actors on the screen, within the frame or adjacent frames. With live actors on stage, this back-and-forth communication is what we refer to when one actor fluffs a line and another improvises a response 'without missing a beat'.

But there is another way to think about the beat of film storytelling, one that is perpendicular to the screen, a second dimension to McKee's definition. The back-and-forth rhythm of expectation and actuality, anticipation and surprise that emerges from the interplay between the imaginings of the director and the imagination of the audience determines the beat of visual imaging, not the actors' dialogue.

'The heart of the mysterious processes by which humans learn to think and communicate lies in that intimate space between mother and child, where a baby looks up into mother's face and the mother looks down into baby's face'

## Psychic energy

A musician performing live can feel the rhythm and flow of psychic energy as he connects with his foot-tapping audience. But, for a film director, the connection with the pulse of the audience is time-shifted, like TiVo in reverse, so the performance of shooting and editing a movie is separated by a long period from the mental applause of the viewers.

The best directors have the intuitive ability to project themselves outside their own heads to see the work through the eyes of the audience.

The idea of a co-creative process implies a transaction-based model of communication. This is different from the historical view of visual communication as one-directional, with an active advertiser sending messages to a passive, couch-potato consumer. We now understand that all forms of human communication are two-directional, involving the active mental participation of both sender and receiver. Interactivity is not just a recent invention of the internet.

As advertising researchers, we can look at TV commercials through the eyes of

viewers with our Picture Sorts® techniques. We can measure and visualize the structure and beat of visual storytelling in film or video with a Flow of Attention® graph – a moment-by-moment map of audience attention that looks like a music score annotated with pictures instead of notes.

Mathematically, the tempo of peak visuals in these graphs, the beat of the film narrative, correlates strongly with the overall attention-getting power and long-term memorability of TV commercials.

A peak in the Flow of Attention is where the audience's moving visual field of interest is centred. The pre-conscious brain operates like an advanced digital auto-focus camera that not only knows it's important to focus on the face, but calculates just the instant to take the picture. The baby is smiling – quick, click the shutter! These special moments are where the critical transactions of emotionally charged information take place between visual storyteller and audience.

### Transactional exchanges

All business is based on the concept of a transaction, the exchange between seller and buyer of goods and services for money or something equivalent. Advertising also involves a transaction, with the

advertiser offering relevant information or meaningful emotional experiences for the limited attention and memory resources of the consumer.

When we laugh or cry at an image on the TV screen, we are performing a form of emotional mimicry, evoking interior emotional states that resonate with those conveyed by pixels of light. Mirror neurons may be the biological basis for our ability to empathise, our neural dendrites plucked like the strings of one musical instrument being tuned to another. Emotional resonance is another way to conceptualise an emotional transaction between the two sides of a communication.

The complex emotional transactions when two human beings interact have been described in the theory of Transactional Analysis (TA), developed by psychologist Eric Berne. This theory was popular in the 1970s, partly because of his insight that our emotions need to be understood in the context of the roles we act out in our day-to-day lives.

Berne thought of roles in terms of three ego-states (not to be confused with Freud's Ego, Superego and Id): those of Parent, Adult and Child. The emotions we associate with the role of Parent – caring, nurturing, protecting – are quite different

from those we associate with our inner Child – joy, anger, fear – or those we express when we are trying to stay Adult – pleasure, sadness, disgust.

Of course, the differences in the degree and quality of many emotions may not have an English word sufficiently nuanced to capture them – the anger of a disappointed but loving parent is very different from the anger of a frustrated, out-of-control child.

The importance of roles is that they determine our expectations in different social situations. For example, in a dangerous situation involving real children we expect a man's fear (inner Child) to be trumped by his sense of protectiveness (Parent). Setting and then occasionally violating expectations is, of course, an essential part of storytelling.

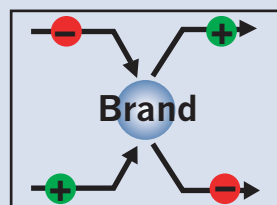
### Brand roles

Brands play roles in our lives as consumers and it is easy to see how many brands fit with Berne's three types. Cake mixes from Betty Crocker and pain relievers endorsed by authority figures in white lab coats appeal to the Parent inside our heads. Fast cars and fast food are usually sold to our Child. And it is the Adult who buys perfume or shops at Victoria's Secret.

FIGURE 1

## What was the role of the brand?

### 1. Emotional pivot



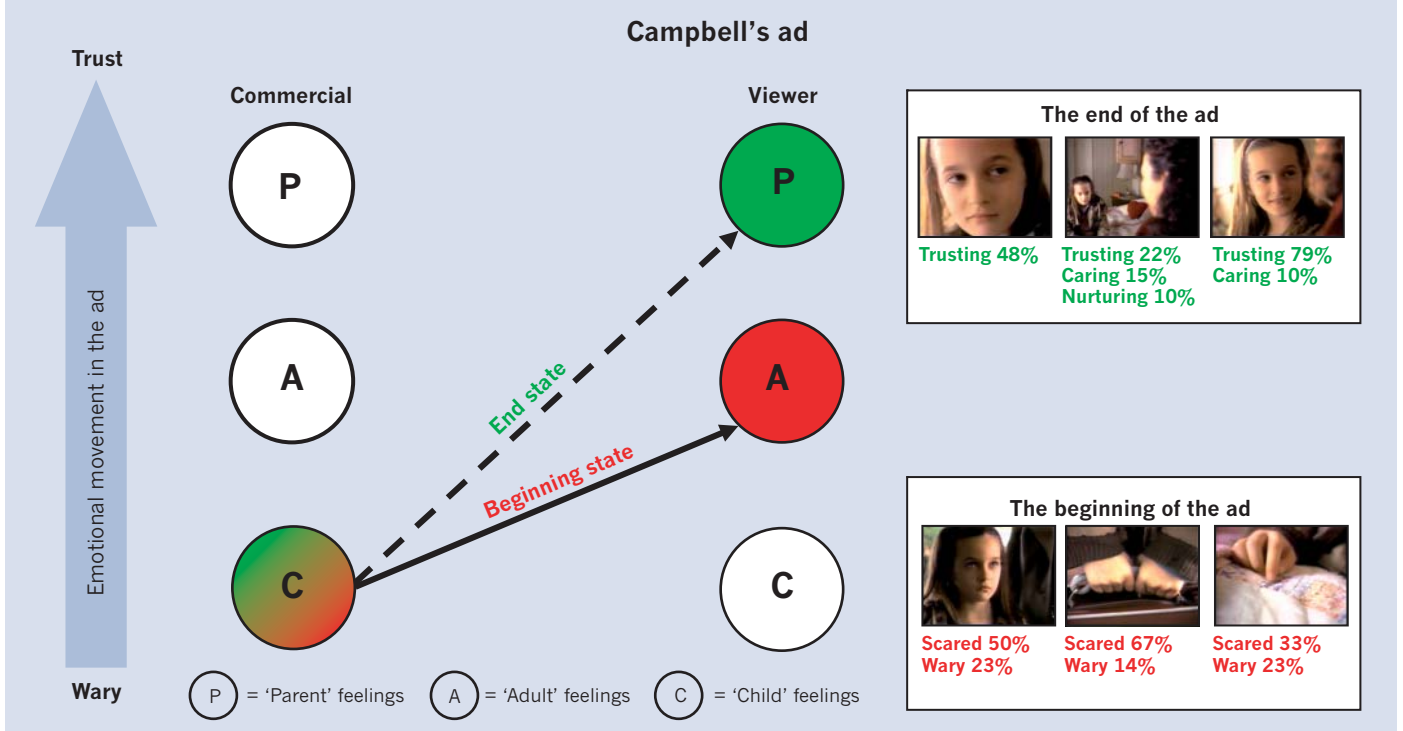
<b>Flow of meaning</b>	<b>Flow of meaning</b>	<b>Flow of meaning</b>
Scared 50%	Scared 67%	Scared 33%
Wary 23%	Wary 14%	Wary 23%

<b>Flow of meaning</b>	<b>Flow of meaning</b>	<b>Flow of meaning</b>
Nurturing 21%	Nurturing 35%	Trusting 53%
Caring 14%	Caring 10%	Nurturing 15%

<b>Flow of meaning</b>	<b>Flow of meaning</b>
Trusting 48%	Trusting 79%
	Caring 10%

FIGURE 2

The emotional transactions between the commercial and viewer



TA shifts the focus of attention of communication analysts from trying to understand the internal emotional dynamics of the individual to understanding the interactions between the roles expressed by two people trying to communicate with each other. According to Wikipedia, 'transactions are the flow of communication and more specifically the unspoken psychological flow of communication that runs in parallel'.

There are numerous different types of transaction that can be used by a brand in advertising. There are simple, reciprocal transactions that take place when both parties are addressing the same role. McDonald's, expressing its Adult side, might simply be informing your Adult of a special offer on Big Macs. There are also complementary transactions, when the brand, in one role, appropriately addresses a different role of the consumer. Showing cute kids having fun eating Happy Meals evokes the nurturing emotions of the Adult-as-Parent.

Crossed transactions can also happen, and these are frequently a cause of communication failure. A few years ago we tested a Wendy's commercial featuring the late Dave Thomas running around telling his breakfast customers not to eat a big breakfast because he had a great new bacon cheeseburger for lunch. Typically in commercials that used him, Dave appeared to communicate with consumers child-to-child, as the lovable big kid who knew where to get the best hamburgers. But in this commercial he was miscast as a parent figure, talking down to your child, telling you what to do – and consumers hated it.

At the time we had performance scores that showed the ad was not working, but we were not sure why. We had this hypothesis, which seemed to provide some insight, but no data to prove it. At the time the non-verbal tools we needed to measure the specific emotions that a consumer experiences when watching a commercial had not yet been developed.

**Three-dimensional view**

At Ameritest we now use three different Picture Sorts® to provide a three-dimensional view of the consumer's emotional response to ad film. The first sort, the Flow of Attention described previously, captures the workings of unconscious emotions directing the eye as it scans and sorts visual stimuli, deciding what's important enough to let into the conscious mind. The second, the Flow of Emotion, captures the levels of positive and negative emotion that the consumer becomes conscious of feeling in watching an ad – a response curve mathematically independent of the first curve but strongly correlated with purchase intent or overall motivation.

The third sort, the Flow of Meaning, overlays the colour of nuance to the black-and-white sketch of positives and negatives provided by the second, by measuring precisely the levels of specific emotions evoked by each image in an ad; think of this as the emotional palette an ad has been painted with – which is key to

**Charles Young** is founder and CEO of Ameritest, an international advertising and brand research company. In his 20 years in the advertising business Chuck has worked extensively in the packaged goods, retail, fast food, entertainment, automotive, telecommunications and e-commerce categories. [chuck@ameritest.net](mailto:chuck@ameritest.net)



understanding whether or not the emotional communication of an ad is on strategy.

The measurement of these three modes of emotional involvement is quite simple. All three Picture Sorts use the same deck of still photos from the ad as a non-verbal emotional 'vocabulary' for describing audience response. It works because, in terms of storing and retrieving emotions, nothing works so well as a photograph – which is why we all keep albums of pictures of friends and family.

For the first sort, respondents split the photographs into two groups: those they remember and those they don't. For the second, they place the pictures they remember into one of five groups representing a scale from very positive to very negative. And, for the third, they sort the photos into different buckets of meaning, described by a customised set of emotional words or categories that might be used to describe the particular emotion (or positioning ideas) they felt as they watched each image in the commercial.

### A soup opera

The usefulness of picture-sorting for understanding the emotions generated by a commercial can be illustrated by a Campbell's soup commercial recently tested as part of an ARF study of emotion in advertising.

This 60-second commercial tells the story of a recently orphaned girl brought to a new foster home. In the opening shots we see in her face the sadness and fear she feels as she stands with the social worker on the porch of her new home. A close-up shows her gripping her suitcase nervously. The middle-aged woman who opens the door and brings her inside smiles and tries to be friendly, but the girl is downcast and homesick. Then, with a flash of insight, the woman goes to the kitchen, opens the cupboard and reaches for a can of Campbell's soup. When the woman serves the soup to her, the girl recognises it as the brand her real mother used to serve her. So, by the end of the ad, we see on her face that the girl's feelings towards her new mum have changed completely.

For advertisers, what's important about emotion is the motion in emotion. Advertisers use advertising to drive purchasing behaviour or to move consumers to identify more closely with their brands. In storytelling, the emotion-state the audience is in at the end of a story should be quite different from that they were in at the beginning – otherwise, emotionally, nothing happened. As McKee points out, the purpose of stories in our lives is to explain how and why life changes.

If we look at the Flow of Meaning for this commercial (see Figure 1), we see high levels of fear registering in the critical images falling on the first few beats of the story – the orphan's face (50% of the audience) and the white-knuckled grip on her suitcase (67%). At the turning-point, when the familiar Campbell's can and the preparation and serving shots arrive, on the middle beats of the story, we see new emotions – caring (14%) and nurturing (35%). Finally, on the ending beats of the story we see the emotional change registering on the girl's face, with the strong level of trust (79%) towards her new mums.

A transactional analysis (see Figure 2) of the movement in emotional states evoked by this commercial provides additional insight into the strength of this ad. On the

**'We should never forget that, in every transaction a viewer has with a piece of advertising, only half of what's being put into the communication is put there by the advertiser; the other half is put there by the consumer'**

screen, the non-verbal back-and-forth looks between girl and woman can be analysed in terms of the emotional transactions taking place between the actors.

In the beginning, the transaction is Child-to-Adult, as the girl reacts to the woman with the fear and wariness natural for an older child meeting a stranger for the first time. But then the woman does something unexpected – she serves Campbell's soup. As a result, by the end of the commercial the emotional transaction shifts to Child-to-Parent, as the woman makes the transition to her role as new mum in the eyes of the child.

The emotions the audience feels mirror the emotions in the ad. In the beginning we watch the commercial in our default role as Adults, observing the fear in the child's face, so the emotional transaction between commercial and viewer is also Child-to-Adult. But as we are drawn deeper into the story and begin to care about what happens next, we shift from the Adult role into our Parenting ego-state. In the end the new-found trust we see in the girl's face validates the behaviour we observed in the ad – that serving Campbell's would make you feel like a good mum.

The insight of the agency is that Campbell's does not sell soup to adult women – it sells soup to women in their role as home-makers and mothers; and advertising must shift the consumer's emotional Adult-state into the Parent-state to make a sale.

This case is, of course, only a specific example of a more general point that applies not just to TV but to all media. Whether or not it's more rational messaging or an attempt to create an emotional connection with the brand, we should never forget that, in every transaction a viewer has with a piece of advertising, only half of what's being put into the communication is put there by the advertiser; the other half is put there by the consumer.

The idea of co-creativity is simple: it takes two to communicate. ■



More on neuromarketing at [WARC.com](http://WARC.com)