

SCIENTIFIC CONCEPTS OF EMOTION AND CULTURAL IDENTITIES (SCECI)

The project investigates (a) the concepts of emotion that medical and psychological research produced between the 1950s and 2000s, and asks (b) if and how these concepts have informed emotional culture and identity in post-industrial Western societies, assessed through audio-visual media productions (movies and TV). The project takes an innovative stance on how scientific studies of emotion and cultural analysis of societal change and of processes and dynamics of identity formation can be studied as mutually dependent variables. It will be continued at the Institute for Advanced Study in Marseille, France, 2015-2016.

Results/Conclusions/Socioeconomic Impact:

Since functional magnetic resonance imaging (fMRI) in the 1990s, opened up the human brain for study to a vast community of researchers, a true avalanche of publications on emotions has been published, which no single researcher can master. For example, in 2014 the database Medline listed 18.923 hits for the keyword emotion, compared to 558 publications in the decade of 1977-87 (Wassmann forthcoming).

Three themes stand out among the most prominent concepts used to frame emotions in scientific studies: stress, basic emotions, and fear. These overarching themes link research agendas from the twenty-first century back to the early twentieth century. They allow tracing concepts of emotion as they move from one academic discipline to another shifting meaning in the process, as well as their cultural expression in audio-visual media.

For instance, the concept of stress moved from physiological research in the 1950s to psychology and sociology. What is understood by “stress” has shifted from designating a precise set of bodily reactions to nocive stimuli in physiology (Cannon 1914, 1936; Selye 1956, 1974, 1975, 1998; Mason 1975; Sapolsky 2004) to a broad “social keyword” in the 2000s in sociology, which proved widely useful to express the emotional discomfort with all kinds of ills of society in a vast range of contexts, often work related (Kury 2010; Neckel & Wagner 2014).

The theme of “basic emotions” is a good example that allows tracing the fate of a scientific concept of emotion in cultural dissemination. The concept of basic emotions relates to facial expressions of emotions and the question whether there is a set of emotions, which is universal among human beings and conveyed by similar facial expressions. It was made popular by Paul Ekman’s (1972, 2003) research in the 1970s and witnessed a revival in the early 21st century in the wake of the 9/11 terrorist attack (Wassmann 2016). At that moment, audio-visual productions took up the concept, for instance, in the remake of the 1970s science fiction series *Battlestar Galactica* (ABC, 1978-79; Sci-fi, 2003-9). The concept is also used as an analytical tool to access media reception (Bartsch, Eder, Fahlenbach 2014). While historians of emotions are highly skeptical as to the existence of basic emotions and rather stress the cultural contingency of emotions and their expression (Plamper 2015), the cultural outflow of the basic emotions concept is vast, as one can see in the widespread use of emoticons in social media.

Fear, finally, is a broad theme that has a wide range of reverberations in psychological, medical, and sociological research. “Anxiety” and “fear” are the most

frequent terms that come up in the literature retrieved when searching for the keyword emotion in the database Web of Science. The emotion of fear is often used in movies to generate suspense and viewer attention; but film has a more complex relation to this emotion, as several contributions to our conference by Stella Bruzzi, Miguel Huerta, and Robin Kurilla amply demonstrated (in: Wassmann 2015c).

As one might expect, there is neither a linear representation of bio-medical research in the media, nor do audio-visual media productions inform the medical research agendas. Brain imaging research, using fMRI, placed fear and the amygdala centrally on the agenda of neuroscience studies on emotion (Damasio 1994; LeDoux 1994, 1996). Among the most important aspects of this research figure fundamental genetic differences among individuals, which impact brain chemistry, emotional experience and behavior (Hariri et. al 2002, Hariri & Holmes 2006). This crucially important aspect of emotion processing is not reflected in social science research on emotions, which instead emphasizes the need of emotion control or emotional management (Hochschild 2003). While sociological approaches to emotion stress emotional reflexivity as the preeminent feature in characterizing late-modern societies (González 2013), neurophysiological research delineates the limitations of an individual's capacity to "unlearn" emotional reactions. This research also touches on the emotion-cognition relationship and processes of unconscious information processing, which are widely debated.

Films have documented, reflected upon, and enacted a paradigm-shift with regard to the emotions that took place at the turn of the 21st century promoted by research in neurology/neuroscience and psychology/economy (Damasio, Kahneman). This research led to the belief that emotions are highly important in rational decision making rather than being their opposite. These research findings found direct expression in audio-visual media productions. This can be seen most prominently in a comparison of the popular science fiction series in the 1960s, *Star Trek* (NBC 1966-9), and the remake movie, *Star Trek*, in 2009, which now carries the explicit message: "Listen to your emotions."

Conclusion

Developments of research on emotion are divergent. As one can see from the survey of the literature no one straight line links research agendas in the life sciences, sociology and cultural productions. The "high on emotion" that we witness at the turn of the 21st century, and that recalls the "age of sensibility" with an inflationary number of publications on emotions, is only partly explainable by scientific research which promoted knowledge about emotions, and partly an indication of "upheavals of thought," of the dislocations of their social worlds that people experience at the turn from the 20th century into the 21st century.

While the consumption of supra-national fiction, in particular Anglo-American TV series and movies, is part of a cultural-emotional identity, the educational processes of identity formation and adoption of emotional pattern of behavior seem more strongly informed by direct interaction in local national settings and religious beliefs (including their absence). The impact of audio-visual productions as role model of identity and emotional values needs to be further explored in particular in the context of mixed societies that characterize our contemporary world.

Summary of Methods

The aim of the project was to undertake

- a description of scientific research in emotion since the 1950s intelligible to audiences in the social sciences and humanities
- an analysis of cultural concepts of emotional identity in Western societies since the 1950s as expressed in movies and TV productions
- an assessment of the impact that scientific research in emotion has had on cultural concepts of identity and audio-visual cultural productions

We surveyed the keyword emotion in Medline, PsychInfo, and Web of Science in order to compare pattern of publications in the medical and the social sciences fields and retrieve the dominant themes. We analyzed the Corpus of Contemporary American English (<http://corpus.byu.edu/coca>) for the keyword emotion to extract the related terms and concepts used in context with emotion in American texts. The corpus contains texts derived from fiction, popular magazines, newspapers, and academic text 1990-2012. The results will be published after the end of the fellowship period.

Crime fiction on television and science fiction series and movies provided a good starting point for assessing the impact of scientific theories of emotions on cultural productions, as well as tracing the dislocations of emotional orders over time. One can roughly see a shift from utopian to dystopian scenarios, and the comedies of the 1960s, while still beloved, were replaced by realistic crime fiction that predominate in prime time programs on television in the 21st century. This will be further explored.

Linking the concepts of stress and fear, is psychotherapy, which lends itself to probing changes in emotional orders and mediations. Psychoanalysis, like movies, is a key feature of 20th century culture, and both share a privileged relationship. “Therapeutic culture” is a widely used framework in sociological interpretations of contemporary societies, but insufficient alone to account for the changes in emotional orders that took place over the course of the 20th century.

The transdisciplinary conference that we organized at the University of Navarra charted new territory, yet to be explored by historians and film and media scholars, of emotional regimes and their genealogies in the 20th and 21st centuries. The list of movies and TV series compiled in the collective volume *Therapy and Emotions in Film and Television. The Pulse of Our Times* provides a starting point for future analysis. The themes brought up in the conference amply demonstrate the “wrenching dislocations” of a time “in-between emotional orders” and modes of mediation, as the historian Michael Geyer, University of Chicago, put it.

<http://www.unav.edu/en/web/instituto-cultura-y-sociedad/media-therapy-emotions>

References

- Bartsch, A., Eder, J., & Fahlenbrach, K. (2007; 2014). *Audiovisuelle Emotionen: Emotionsdarstellung und Emotionsvermittlung durch audiovisuelle Medienangebote*. Köln: Herbert von Halem Verlag.
- Bruzzi, S. (2015). Re-enacting Trauma in Film and Television: Restaging History, Revisiting Pain. In C. Wassmann (Ed.), *Therapy and Emotions in Film and Television. The Pulse of Our Times* (pp. 89-98). London: Palgrave Macmillan.
- Cannon, W. B. (1914). The interrelations of emotions as suggested by recent physiological researches. *The American Journal of Psychology*, 25, 256-282.
- Cannon, W. B. (1936). The role of emotion in disease. *Annals of Internal Medicine*, 9(11), 1453-1465.
- Damasio, A. R. (1994). *Descartes' error : emotion, reason, and the human brain*. New York: G.P. Putnam.
- Ekman, P. (2003). *Emotions revealed: Recognizing faces and feelings to improve communication and emotional life*. London: Weidenfeld & Nicolson.
- Ekman, P., Friesen, W. V., & Ellsworth, P. (1972). *Emotion in the human face: guidelines for research and an integration of findings*. New York: Pergamon Press.
- Gilovich, T., Griffin, D., & Kahneman, D. (2002). *Heuristics and biases: The psychology of intuitive judgment*. Cambridge UK; New York: Cambridge University Press.
- González, A. M. (2013). *The emotions and cultural analysis*: Ashgate Publishing, Ltd.
- Hariri, A., & Holmes, A. (2006). Genetics of emotional regulation: the role of the serotonin transporter in neural function. *Trends Cogn Sci*, 10(4), 182-191. doi:10.1016/j.tics.2006.02.011
- Hariri, A. R., Mattay, V. S., Tessitore, A., Kolachana, B., Fera, F., Goldman, D., . . . Weinberger, D. R. (2002). Serotonin transporter genetic variation and the response of the human amygdala. *Science*, 297(5580), 400-403. doi:10.1126/science.1071829
- Hochschild, A. R. (2003). *The managed heart : commercialization of human feeling* (20th anniversary ed.). Berkeley, Calif.: University of California Press.
- Huerta Floriano, M. A. (2015). The relationships between therapy culture, psychology and cinema: The case of Woody Allen. In C. Wassmann (Ed.), *Therapy and Emotions in Film and Television. The Pulse of Our Times* (pp. 99-114). London: Palgrave Macmillan.
- Kahneman, D. (2011). *Thinking, fast and slow*. London: Allen Lane.
- Kurilla, R. (2015). Therapy Cultures in Society: A Polycontextual Approach. In C. Wassmann (Ed.), *Therapy and Emotions in Film and Television. The Pulse of Our Times* (pp. 115-133). London: Palgrave Macmillan.
- Kury, P. (2012). *Der überforderte Mensch: eine Wissensgeschichte vom Stress zum Burnout*. Frankfurt a.M.: Campus Verlag.
- LeDoux, J. E. (1994). Emotion, memory and the brain. *Scientific American*, 270(6), 50.
- LeDoux, J. E. (1996). *The emotional brain : the mysterious underpinnings of emotional life*. New York: Simon & Schuster.
- Mason, J. W. (1975). A historical view of the stress field. *Journal of Human Stress*, 1(1), 6-12 contd.
- Neckel, S., & Wagner, G. (2013). *Leistung und Erschöpfung: Burnout in der Wettbewerbsgesellschaft*: Suhrkamp Verlag GmbH.
- Plamper, J. (2015). *The history of emotions an introduction*. Oxford: Oxford University Press.

- Sapolsky, R. M. (2004). *Why zebras don't get ulcers: The acclaimed guide to stress, stress-related diseases, and coping-now revised and updated*: Macmillan.
- Selye, H. (1956). *The stress of life*. New York: McGraw-Hill.
- Selye, H. (1974). *Stress without distress* (1st ed.). Philadelphia: Lippincott.
- Selye, H. (1975). Confusion and controversy in the stress field. *Journal of Human Stress*, 1(2), 37-44.
- Selye, H. (1998). A syndrome produced by diverse nocuous agents (Reprinted from Nature, vol 138, pg 32, 1936). *The Journal of neuropsychiatry and clinical neurosciences*, 10(2), 230-231.
- Tversky, A., & Kahneman, D. (1974). Judgment under uncertainty: Heuristics and biases. *Science*, 185(4157), 1124-1131.
- Wassmann, C. (forthcoming) Forgotten origins, occluded meanings: Translation of emotion terms. *Emotion Review*.
- Wassmann, C. (2015a). An Introduction: Therapy and emotions in film and television. In C. Wassmann (Ed.), *Therapy and emotions in film and television. The pulse of our times* (pp. 1-16). London: Palgrave Macmillan.
- Wassmann, C. (2015b). A tentative conclusion: The pulse of our times. In C. Wassmann (Ed.), *Therapy and emotions in film and television. The pulse of our times* (pp. 153-168). London: Palgrave Macmillan.
- Wassmann, C. (2016). Emotions in *Star Trek* and *Battlestar Galactica*: What makes us human. In A. N. García Martínez (Ed.), *Emotions in contemporary TV series* (pp. 28pp). London: Palgrave.
- Wassmann, C. (Ed.) (2015c). *Therapy and emotions in film and television. The pulse of our times*. London: Palgrave Macmillan.