

University of Groningen

Teaching & learning guide for

Dijk, Corine; De Jong, Peter

Published in:
Social and Personality Psychology Compass

DOI:
[10.1111/spc3.12040](https://doi.org/10.1111/spc3.12040)

IMPORTANT NOTE: You are advised to consult the publisher's version (publisher's PDF) if you wish to cite from it. Please check the document version below.

Document Version
Publisher's PDF, also known as Version of record

Publication date:
2013

[Link to publication in University of Groningen/UMCG research database](#)

Citation for published version (APA):

Dijk, C., & De Jong, P. (2013). Teaching & learning guide for: Social effects of facial blushing: Influence of context and actor versus observer perspective. *Social and Personality Psychology Compass*, 7(7), 507-511. <https://doi.org/10.1111/spc3.12040>

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Teaching & Learning Guide for: Social Effects of Facial Blushing: Influence of Context and Actor versus Observer Perspective

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This guide accompanies the following article: de Jong, P. J. and Dijk, C. (2013). Social Effects of Facial Blushing: Influence of Context and Actor Versus Observer Perspective. *Social and Personality Psychology Compass*, 7, 13–26. doi: 10.1111/spc3.12009.

Authors' Introduction

Several characteristics of the blush make it plausible that the blush is a socially relevant signalling device. First, blushing occurs in several types of situations (e.g., after a mishap and after being complimented), but all have in common that the blusher is subject to the attention of others. Second, humans blush only in visible parts of the body, and other humans are able to detect a blush. That is, the specific physiological and anatomical features that allow the blush response to occur are restricted to the face, and recent research has shown that the visual system of humans has enabled people to detect the difference between flushing (oxygenated arterial blood) and blushing (de-oxygenated venous blood). Third, blushing is controlled by the sympathetic branch of the autonomic nervous system. It seems, therefore, neither possible to intentionally elicit a blush when it would be helpful to pretend to blush nor to intentionally inhibit its occurrence when it would be helpful to pretend not to blush. This makes the blush a very reliable signal.

An important question then is what it is that the blush exactly signals. Blushing often co-occurs with self-conscious emotions, such as shame and embarrassment. In line with this, there is quite some evidence supporting the view that the blush-contingent mental state concerns the acute awareness that one is thwarted in one's goals of esteem before others, or is about to be thwarted. The next question is whether observers indeed use the actor's blush as a source of information about the actor's mental state and whether this might affect their judgments about the actor and/or the blush-eliciting incident. Several studies showed that it does indeed, but that the effects are context specific. When you blush after a faux pas, for example, others who observe you will like you more and take the incident less serious when you blush. However, when you blush without a clear antecedent, for example, when a hairdresser asks you how you want your hair cut, displaying a blush will have a negative influence on the observer's judgments about the actor. This latter finding might explain why blushing also affects the people who blush. People who overestimate these negative effects might start to fear blushing.

Authors' Recommend

Castelfranchi, C., & Poggi, I. (1990). Blushing as a discourse: Was Darwin wrong? In W.R. Crozier (Ed.), *Shyness and embarrassment: Perspectives from social psychology* (pp. 230–251). Cambridge, England: Cambridge University Press.

A nice overview of why blushing can serve as a nonverbal apology.

Darwin, C. (1989). *The Expression of the Emotions in Man and Animals*. New York: New York University Press. (Original work published in 1872).

Darwin was one of the first researchers to thoroughly describe the blush. When you read his chapter with the knowledge of current research, it is amazing how accurate most of his ideas were.

de Jong, P. J., Peters, M., De-Cremer, D., & Vranken, C. (2002). Blushing after a moral transgression in a prisoner's dilemma game: Appeasing or revealing? *European Journal of Social Psychology*, 32, 627–644.

Dijk, C., Koenig, B., Ketelaar, T., de Jong, P.J (2011). Saved by the blush: Being trusted despite defecting. *Emotion*, 11, 313–319 (2011)

These two studies show how you can use economic games to study the signal value of blushing.

Dijk, C., & de Jong, P. J. (2012). Blushing fearful individuals overestimate the costs and probability of their blushing. *Behaviour Research and Therapy*, 50, 158–162.

This research paper explains how the signal value of the blush may cause people to fear blushing.

Dijk, C., & de Jong, P. J. (2012). Red, hot and scared: Mechanisms underlying fear of blushing. In R. W. Crozier & P. J. de Jong (Eds.), *The Psychological Significance of the Blush* (pp. 267–285). Cambridge, England: Cambridge University Press.

This chapter gives a broader overview of mechanisms that drive fear of blushing.

Fischer, A. H., & Manstead, A. S. R. (2008). Social functions of emotion. In M. Lewis, J. Haviland, & L. Feldman Barrett (Eds.), *Handbook of Emotion* (3rd edn). New York: Guilford.

This chapter gives a more general account on why emotions are social.

Frank, R. H. (1988). *Passions within Reason: The Strategic Role of the Emotions*. New York: Norton.

An interesting account on how emotions help us to commit to behaviour strategies that at a first glance do not seem to benefit ourselves.

Leary, M. R., & Toner, K. (2012). Psychological theories of blushing. In R. W. Crozier & P. J. de Jong (Eds.), *The Psychological Significance of the Blush* (pp. 267–285). Cambridge, England: Cambridge University Press.

This chapter gives a general overview of psychological theories of blushing.

Online Materials

Play moral game online

<http://kbhgames.com/1477/prisoners-dilemma/>

Research into the signal value of the blush (but also of other emotions) often include games where people have to trust each other and cooperate (e.g., de Jong, Peters, De Cremer, & Vranken, 2002; Dijk, Koenig, Ketelaar, & de Jong, 2011). At this website, you can experience how it is to play these games.

Watch funny and instructive animation about blush.

<http://www.youtube.com/watch?v=-qDi7IbYGVY>

This video gives a clear introduction in why people blush in only 100 seconds.

Learn about the human face.

<http://face-and-emotion.com/dataface/general/homepage.jsp>

This website has lots of information about the face and emotion expression.

Watch people blush.

<http://www.martinestig.com/html/coll5.html>

This website is of Martine Stig, an artist who photographed people while they blush.

Read real stories from blushing fearfuls.

<http://www.socialphobiaworld.com/facial-blushing-forum/>

This is an Internet forum for people who fear blushing.

Sample Syllabus

Topics for lecture and discussion

Week I: Introduction and overview

Introduction into the blush

Reading

Castelfranchi, C., & Poggi, I. (1990). Blushing as a discourse: Was Darwin wrong? In W. R. Crozier (Ed.), *Shyness and Embarrassment: Perspectives from Social Psychology* (pp. 230–251). Cambridge, England: Cambridge University Press.

Darwin, C. (1989). *The Expression of the Emotions in Man and Animals*. New York: New York University Press. (Original work published in 1872).

Leary, M. R., & Toner, K. (2012). Psychological theories of blushing. In R. W. Crozier & P. J. de Jong (Eds.), *The Psychological Significance of the Blush* (pp. 267–285). Cambridge, England: Cambridge University Press.

Week II: Signal value of blushing

Learn what it is the blush signals and how this depends on the context in which the blush occurs.

Reading

de Jong, P. J., & Dijk, C. (2013). Signal value and interpersonal implications of the blush. In R. Crozier & P. J. de Jong (Eds.), *Illuminating the Face: The Psychological Significance of the Blush*. Cambridge University Press.

de Jong, P. J. & Dijk, C. (2013). Social effects of facial blushing: influence of context and actor versus observer perspective. *Social and Personality Psychology Compass*, 7, 13–26. DOI: 10.1111/spc3.12009

Week III: Signal value of emotions

Learn that signalling your mental state is not restricted to the blush but falls within a larger perspective of a social view on emotions

Fischer, A. H., & Manstead, A. S. R. (2008). Social functions of emotion. In M. Lewis, J. Haviland, & L. Feldman Barrett (Eds.), *Handbook of Emotion* (3rd edn). New York: Guilford.

Parkinson, B. (1996). Emotions are social. *British Journal of Psychology*, 87, 663–683.

Van Kleef, G. A., De Dreu, C. K. W., & Manstead, A. S. R. (2010). An interpersonal approach to emotion in social decision making: The emotions as social information (EASI) model. *Advances in Experimental Social Psychology*, 42, 45–96.

Week IV: The actor's perspective

Learn why people fear blushing

Dijk, C., & de Jong, P. J. (2012). Red, hot and scared: Mechanisms underlying fear of blushing. In R. W. Crozier & P. J. de Jong (Eds.), *The Psychological Significance of the Blush* (pp. 267–285). Cambridge, England: Cambridge University Press.

Dijk, C., & de Jong, P. J. (2012). Blushing fearful individuals overestimate the costs and probability of their blushing. *Behaviour Research and Therapy*, 50, 158–162.

Capozzoli, M. C., Vonk, I. J. J., Bögels, S. M. &. Hofmann, S. G. (2013). Psychological interventions for fear of blushing. In R. Crozier & P. J. de Jong (Eds.), *Illuminating the face: The Psychological Significance of the Blush*. (pp. 286–307). Cambridge, England: Cambridge University Press.

Optional

Focus questions

1. When and why do people blush?
2. What does the blush signal?
3. How do we test that emotional signals affect observers?
4. Why do people fear blushing?
5. How can be explained that adolescents seem to blush relatively frequently and are typically more concerned about their blushing than older people?
6. How can fear of blushing be treated? Explain the underlying rationales and argue what seems the most promising treatment option.

Seminar/project idea

Individual project: test signal value of the blush in a certain context.

Based on what you have learned about blushing and about the signal value of the blush, can you make a prediction about how the blush will affect others in a certain context? For example, what do observers think of a blushing actor when he/she blushes during a presentation, or during a romantic date? Will they like or dislike the person? Will they think the blushing person is competent or incompetent? After you make a clear prediction, try to find a way of testing this. For example, by trying to make people blush in this situations or trying to describe the situations to others. Or maybe you even have a better idea. . .

Short Biographies

Corine Dijk is an assistant professor at the Department of Clinical Psychology of the University of Amsterdam. Her research focuses on the interpersonal consequences of emotion displays and on how this affects emotional disorders. From 2004 till 2008, she was appointed to the University of Groningen where she also received her PhD on the basis of her research on the social consequences of blushing and blushing phobia. She has published in the fields of clinical psychology (e.g., *Behaviour Research and Therapy* and *Cognitive Therapy and Research*) and social psychology (e.g., *Emotion*).

Peter J. de Jong is full professor of Experimental Psychopathology at the University of Groningen. His research is located at the intersection of clinical psychology, social psychology and cognitive psychology. Following a transdiagnostic approach, his research focuses on cognitive-motivational processes that may help explain the origin and maintenance of psychopathology. Part of his research is devoted to social anxiety disorder. For many people who suffer from social phobia, fear of blushing is their main concern. This intriguing feature of social anxiety disorder elicited his more general interest in the signal value and psychological significance of the blush. He has (co)authored well over 150 peer-reviewed articles. Part of

these articles concerned more basic research on the interpersonal and intrapersonal implications of blushing and part concerned more applied studies on the treatment of blushing phobia. Together with Ray Crozier (Cardiff University), he recently co-edited a volume on the psychological significance of blushing (Cambridge University Press). Before coming to the University of Groningen (2003), he worked at the department of Mental Health Sciences of Maastricht University where he also received his PhD (1994).

Endnotes

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