

The primacy of morality in impression development: Theory, research, and future directions

Marco Brambilla^{a,*}, Simona Sacchi^a, Patrice Rusconi^b,
and Geoffrey P. Goodwin^c

^aUniversity of Milano-Bicocca, Milano, Italy

^bUniversity of Surrey, Guildford, United Kingdom

^cUniversity of Pennsylvania, Philadelphia, PA, United States

*Corresponding author: e-mail address: marco.brambilla@unimib.it

Contents

1. Introduction	2
2. Morality and impression development: Theoretical bases	4
3. Looking for information about others: The centrality of morality in implicit assumptions and information gathering	11
3.1 Implicit assumptions	11
3.2 Information gathering	16
4. Evaluating other individuals and groups: Moral character drives first impressions	19
4.1 Interpersonal impressions	19
4.2 Group impressions	32
5. Changing our mind: Morality and impression updating	41
6. Beyond impressions: Morality and social interactions	47
7. A new framework for understanding person and group perception: The moral primacy model (MPM) of impression development	54
7.1 Open questions and a trajectory for the field	58
8. Concluding summary	65
References	65

Abstract

Over the past few decades, two-factor models of social cognition have emerged as a dominant framework for understanding impression development. These models suggest that two dimensions—warmth and competence—are key in shaping our cognitive, emotional, and behavioral reactions toward social targets. More recently, research has jettisoned the warmth dimension, distinguishing instead between sociability (e.g., friendliness and likeability) and morality (e.g., honesty and trustworthiness) and showing that morality is far more important than sociability (and competence) in predicting the evaluations we make of individuals and groups. Presenting research from our laboratories, we show that moral categories are central at all stages of impression development

from implicit assumptions, to information gathering and to final evaluations. Moreover, moral trait information has a dominant role in predicting people's behavioral reactions toward social targets. We also show that morality dominates impression development, because it is closely linked to the essential judgment of whether another party's intentions are beneficial or harmful. Thus, our research informs a new framework for understanding person and group perception: The moral primacy model (MPM) of impression development. We conclude by discussing how the MPM relates to classic and emerging models of social cognition and by outlining a trajectory for future research.



1. Introduction

Imagine that a 35-year-old man moves to the apartment next to yours. In one case, your new neighbor is talkative, friendly, and clever, but he also gives the impression of being dishonest and untrustworthy. In another case, he is shy, introverted, and clumsy, but seems to be honest and trustworthy. In which of these two cases do you expect you would form a more positive impression of your neighbor? In this chapter, we review evidence showing that moral qualities have a distinct and leading role in predicting our impressions, evaluations, and behaviors such that most people would like the honest (but shy and clumsy) neighbor more.

Impression development is a key task that helps people to navigate the social world and that guides their actions toward others (Dunning, 2004; Fiske, 1992). It starts with implicit assumptions that drive the search for information useful to make a judgment of a social target, and ends with a global appraisal of the target, which in turn predicts subsequent behaviors toward that person (Carlston, 2013). A long tradition of research has shown that two broad dimensions drive emotional and behavioral reactions toward other individuals and groups (for reviews, see Abele, Ellemers, Fiske, Koch, & Yzerbyt, 2021; Abele & Wojciszke, 2014; Fiske, Cuddy, & Glick, 2007; Koch, Yzerbyt, Abele, Ellemers, & Fiske, 2021; Wojciszke, 2005). The warmth dimension (also called communion or the horizontal dimension) pertains to benevolence in social relations and involves qualities such as friendliness, kindness, and trustworthiness. The competence dimension (also called agency or the vertical dimension) refers to the power to achieve one's goals effectively and involves qualities such as efficiency, intelligence, and capability (for a review, see Abele & Wojciszke, 2007; see also Asch, 1946; Rosenberg, Nelson, & Vivekananthan, 1968). The warmth dimension is purported to be important to our impressions of people because it indicates whether someone's intentions toward us are beneficial or harmful.

The competence dimension is important because it indicates whether someone has the ability to carry out their intentions toward us (Fiske et al., 2007; Fiske, Cuddy, Glick, & Xu, 2002).

Two-dimensional models have been extremely influential and have been employed to understand a wide range of social cognitive processes, including person perception (Abele & Bruckmuller, 2011; Rosenberg et al., 1968; Wojciszke, 1994, 2005; Wojciszke, Bazinska, & Jaworski, 1998) and the stereotyping of social groups (Fiske et al., 2002; Phalet & Poppe, 1997; Poppe & Linsen, 1999). However, there has been recent debate surrounding alternative models of person and group perception (Abele et al., 2021; Koch, Imhoff, et al., 2020; Koch et al., 2021). One issue highlighted in the last decade is that the reliance on the two-dimensional model of warmth and competence has led to less attention being given to moral qualities as especially important in person and group perception. Indeed, warmth captures several distinct aspects of human benevolence. It has been variously operationalized as kindness, good-naturedness, and sincerity (Fiske et al., 2002); good-naturedness, sincerity, and friendliness (Claussell & Fiske, 2005); sociability (Lin, Kwan, Cheung, & Fiske, 2005); trustworthiness, sincerity, kindness, and friendliness (Cuddy, Fiske, & Glick, 2008). In fact, researchers have tended to use the labels “morality” and “warmth,” interchangeably (e.g., Fiske, 2018; Fiske et al., 2002, 2007; Wojciszke, 2005), giving no particular importance to specific information about people’s morality. However, in the last decade, research has jettisoned the warmth dimension, distinguishing between sociability and morality (Brambilla & Leach, 2014; Goodwin, Piazza, & Rozin, 2014; Leach, Ellemers, & Barreto, 2007; see also Abele et al., 2021; Koch et al., 2021). Sociability refers to an orientation to affiliate with and form connections with others and is exemplified by traits such as friendliness, likeability, and extroversion. Morality refers to the perceived virtue of a person and is exemplified by traits such as honesty, sincerity, and trustworthiness (for reviews, see Brambilla & Leach, 2014; Goodwin, 2015; see also Abele et al., 2016). Along these lines, research has further jettisoned the competence dimension (Abele et al., 2021), distinguishing between ability (e.g., intelligence and skillfulness) and assertiveness (e.g., self-confidence and independence). This newly emerging perspective has shown that morality is far more important than sociability (and competence) in shaping person and group impressions and behaviors.

This chapter reviews recent work from our laboratories illustrating the distinctiveness and primacy of morality in person and group perception. More specifically, we review insights since 2007, which demonstrate that:

(i) morality, sociability, and competence make unique contributions to impression development; (ii) morality has a primary role over sociability (and competence) in guiding the impressions that we form and the evaluations that we make of other people, and this can be seen at various stages of impression development. The chapter is organized around four major sections, each of which considers a key aspect of impression development. After introducing the general approach to the analysis of morality in impression development, we consider work showing the primary role of moral categories at early stages of impression development (i.e., implicit assumptions and information gathering). We then discuss findings showing that, once it is available, information concerning morality has a greater impact on the global impressions of individuals and groups than information concerning non-moral characteristics. Next, we consider the development of impressions over time and review evidence highlighting the leading role that moral characteristics play when people update their first impressions after having been exposed to impression-incongruent information. Then, we review studies showing how the moral qualities of a target impact subsequent behaviors that regulate social interactions. We conclude the chapter by showing how the results of our research inform a new framework for understanding person and group perception: The moral primacy model (MPM) of impression development.



2. Morality and impression development: Theoretical bases

The study of morality and of its role in social life has played a central role in the history of human thought since its origins. In his *Nicomachean Ethics* (Ross, 1999), Aristotle placed morality at the top of a virtues' hierarchy as a good to which everyone must aspire. Psychology has long been concerned with morality, especially when analyzing thinking and reasoning (e.g., moral dilemmas; Foot, 1967) and social development (Killen & Smetana, 2006; Kohlberg, 1969; Piaget, 1932). Yet, compared to these strands of research, social psychology has been delayed in analyzing how morality shapes impressions (Leach, Bilali, & Pagliaro, 2015; Leach et al., 2007). One reason for this lag is the widespread reliance on a traditional view that people form overall impressions of individuals and groups by combining only two fundamental dimensions: Warmth and competence (e.g., Dual Perspective Model, DPM, Abele & Wojciszke, 2007; Stereotype Content Model, SCM, Fiske et al., 2002; see also Abele et al., 2021).

However, as mentioned in the introduction, an important conceptual ambiguity suffuses the notion of warmth. It conflates aspects of sociability, such as friendliness, with aspects of morality, such as honesty (for a discussion, [Brambilla & Leach, 2014](#); [Goodwin, 2015](#)). As such, a person can be honest, but not necessarily sociable and friendly, or vice versa. For instance, consider *The Godfather* (1972) directed by Francis Ford Coppola: The protagonist played by Marlon Brando is an affectionate father, sociable within his clan, but he is certainly not a moral person. Conversely, Ludwig Wittgenstein was a highly principled individual who was recognized for his valor and bravery during the First World War, but he also possessed a severe personality, and was an especially strict disciplinarian when teaching school children mathematics, i.e., he was distinctly not sociable ([Monk, 1990](#)). At a group level, there are many examples of social categories for which the associated stereotypes are highly moral but not sociable. An example is the stereotypical representation of Japanese people in Western countries: Japanese people are stereotyped as being honest, principled, and respectful, but not especially sociable ([Katz & Braly, 1933](#)). In sharp contrast, other groups are stereotyped as highly sociable but not moral. For instance, Italians are often perceived as friendly but unfair and corrupt ([Moscatelli, Menegatti, Albarello, Pratto, & Rubini, 2019](#)). Building on these insights, the first aim of the present chapter is to show that morality and sociability make unique contributions to impression development and that morality has a primary role in the impressions that we form and the evaluations that we make of other people.

This approach is theoretically important, because a good deal of work in impression formation seems to suggest that a target's warmth traits receive priority over their competence traits, an effect often referred to as the "primacy" of warmth (e.g., [Abele & Wojciszke, 2007, 2014](#); [Wojciszke & Abele, 2008](#); [Wojciszke, Bazinska, et al., 1998](#)). For instance, warmth is processed preferentially in earlier stages of information processing. Thus, people are faster at identifying warmth-related words (e.g., "honest," "friendly"), as opposed to competence-related words (e.g., "clever," "skillful") in a lexical-decision task ([Ybarra, Chan, & Park, 2001](#)) and warmth traits are mentioned prior to competence ones in spontaneous descriptions of other individuals ([Abele & Bruckmuller, 2011](#)). Importantly, people select significantly more warmth than competence traits when they are asked to indicate traits that would help them to decide whether a target person warrants a generally positive evaluation ([De Bruin & Van Lange, 2000](#); [Wojciszke, Bazinska, et al., 1998](#)). In a similar vein, classic experiments show that a

target's warmth traits receive higher weight in forming an overall impression than their competence traits. As such, it has been shown that warmth is a significantly stronger predictor than competence of global impressions of familiar others and that evaluations based on warmth information are strong and stable whereas evaluations based on competence information are weak and dependent on accompanying warmth information (see also Wojciszke, 2005).

These findings have been interpreted from a functionalist perspective. Theorists have argued that knowing another's intentions for good or ill (i.e., warmth) is more essential for survival than knowing whether a person can fulfill those intentions (i.e., competence) (Fiske et al., 2007). Accordingly, in social interactions, people are primarily interested in discovering whether someone's intentions are beneficial or harmful, that is, whether they represent an opportunity or a threat. As such, warmth has been theorized to be more informative than competence (Cuddy et al., 2008; Ybarra et al., 2001).

However, these studies have conflated within the single warmth dimension characteristics pertaining to sociability (e.g., "friendliness") and morality (e.g., "honesty") that, although correlated, can be distinguished. In other words, prior work did not disentangle the role of sociability and morality information in fostering the primacy of warmth over competence. Throughout this chapter, we review evidence showing that the assumed dominance of warmth in impression formation may more precisely be explained by the special importance of morality rather than sociability information. Given that moral traits indicate the virtuousness of social targets (Brambilla & Leach, 2014; Goodwin, 2015; Goodwin et al., 2014; Leach et al., 2007), it follows naturally that morality would be more important than non-moral characteristics in defining whether someone is an opportunity or a threat (see also Deutsch, 1982; Van Lange & Kuhlman, 1994; Willis & Todorov, 2006). Thus, because the main function of impression formation is to help people navigate their social worlds, by identifying potential threats, and making appropriate approach-avoidance responses (De Bruin & Van Lange, 2000; Wojciszke, Bazinska, et al., 1998), it stands to reason that moral traits would loom larger than sociability traits. Accordingly, we have theorized that moral traits should dominate impression development. Throughout this review, we discuss evidence supporting this view, which shows that morality drives impression development, because it indicates more strongly than sociability and competence the nature of a social target's intentions and whether those intentions are helpful or harmful.

A second aim of the present chapter is an analysis of the cognitive processes involved in impression development. Impression development requires multiple stages of processing, including the search for information useful to make a judgment (De Bruin & Van Lange, 2000), the global appraisal of a given target, as well as the integration of new information over time in order to update impressions (Anderson, 1981; Asch, 1946). Although not a part of impression development *per se*, behavioral responses to a given target are a natural consequence of the impressions people form (Snyder & Swann, 1978), and so we review them here as well. Importantly, showing the primacy of a content dimension in a single phase of this complex process is not sufficient to understand the extent of the phenomenon and its consequences. Indeed, a long tradition of research has shown that the same information might be treated differently at different stages of impression development. This becomes clear, for instance, when we analyze the relation between the information-search and the information-processing phases. In fact, impression formation might be conceived as a case of hypothesis development (Klayman, 1995) applied to the social world. As such, it consists of at least three sets of complex behaviors: Hypothesis generation, testing, and evaluation (McKenzie, 2004).

Let's consider an example of the importance of such an integration. When we meet a new person, we start generating hypotheses based on the social information to which we are exposed. In many real-life situations, preliminary hypotheses are spontaneously generated, for instance depending on our goals, worldview, motivations, automatic schema, and cue salience in a specific context. Once these hypotheses are generated, we then begin gathering information to test those hypotheses, which could confirm or falsify them. To this end, we can use diagnostic or pseudo-diagnostic hypothesis-testing strategies (see Trope & Liberman, 1996). A diagnostic strategy is a testing strategy that allows individuals to maximally discriminate between the competing hypotheses (e.g., Nelson, 2005, 2008). This strategy takes into consideration both the diagnosticity of the data as well as the prior probabilities of the working hypothesis and the alternative hypotheses. However, the consideration of more than one hypothesis at a time, which is a defining feature of diagnostic testing, can be effortful and require motivational and cognitive resources. Therefore, in everyday life, social perceivers tend to use simplified, pseudo-diagnostic strategies that could lead to suboptimal outcomes, but which might also be adaptive (Dardenne & Leyens, 1995). For instance, pseudo-diagnostic testing constrains information gathering to data that are coherent with the working hypothesis,

regardless of the data's ability to discriminate between the working hypothesis and the alternatives. In this vein, previous research has consistently shown that individuals tend to use positive testing strategies in information seeking, also known as "matching" questions (e.g., Dardenne, Dumont, Grégoire, & Sarlet, 2011; Dardenne & Leyens, 1995). That is, they test a working hypothesis (e.g., "John is extroverted") by asking questions that are expected to result in a "yes" response given the truth of the working hypothesis (e.g., "Does John like parties?") (e.g., Cherubini, Rusconi, Russo, Di Bari, & Sacchi, 2010; Klayman, 1995; Klayman & Ha, 1987; Nickerson, 1998; Skov & Sherman, 1986; Slowiaczek, Klayman, Sherman, & Skov, 1992; Trope & Liberman, 1996; Wason, 1960, 1968). Importantly, however, the outcome of a query (e.g., a "yes" or a "no" answer to a dichotomous question) can either confirm or disconfirm the working hypothesis. Therefore, the positive inquiry "Does John like parties?" to test the working hypothesis "John is extroverted" might receive a "yes," trait-consistent answer that increases the confidence in the working hypothesis or a "no," trait-inconsistent answer, which is likely to weaken that confidence (Wason, 1960). This means that, when the "yes" and the "no" answers are equally informative, positive testing does not necessarily lead to confirmation bias, defined as "the seeking or interpreting of evidence in ways that are partial to existing beliefs, expectations, or a hypothesis in hand" (Nickerson, 1998, p. 1). Indeed, confirmation bias is likely to arise when positive testing is combined with other distortions at subsequent stages of hypothesis development. For example, if social perceivers emphasize trait-consistent behaviors (e.g., "John likes parties"), but disregard trait-inconsistent behaviors (e.g., "John spends his nights reading Sylvia Plath's poems").

In this sense, there is now consensus that positive testing, which has long been considered a feature of confirmation bias, should be distinguished from it (Klayman & Ha, 1987; McKenzie, 2004; Trope & Thompson, 1997; see also Rusconi, Sacchi, Toscano, & Cherubini, 2012; Sacchi, Rusconi, Russo, Bettiga, & Cherubini, 2012). According to this revised view, distortions in hypothesis testing are the result of a complex interaction between hypothesis generation, the ensuing testing strategies, and information processing (Klayman, 1995; McKenzie, 2004; Nickerson, 1998; Poletiek, 2001; Slowiaczek et al., 1992). Thus, confirmation bias is now interpreted as an integrative term that covers biases characterizing different processes (Liefgreen, Pilditch, & Lagnado, 2020; for a review, see Hahn & Harris, 2014).

In the same vein, one could argue that the primacy of a given content dimension in the early stages of impression generation and information gathering may be overturned in a more mature phase of the process (e.g., evaluative phase). For instance, even if we are interested in seeking information about an unknown target's morality, our search might uncover cues indicating the presence of other dimensions (e.g., sociability and competence) even incidentally. Thus, if the diagnosticity of these data exceeds the diagnosticity of morality information, the initial primacy of morality in information seeking could be canceled out during the evaluative phase. For this reason, evidence on the dominant role played by a content dimension (e.g., morality) during information search must be integrated in a complementary way with evidence of its primacy during the subsequent stages when individuals are asked to process and integrate evidence about a social target in order to generate an overall impression of them.

A second example of the utility of a more integrative approach concerns the combination of new evidence to update first impressions. As social psychologists know well, starting from Asch's seminal works (1946) on the configural model, the impression of another person is the result of a constructive process guided by interpretation, and is not reducible to the sum of the individual's single traits. Specifically, important central traits ("warm" and "cold" in Asch's model) are likely to color our perceptions of the other traits. Following this rationale, morality, sociability, and competence traits might interact with one another and change each other's meaning and relevance, depending on factors such as their ordering and relative centrality in a specific context or task. In a similar vein, first impressions can create expectations that influence our subsequent information processes (Klayman, 1995; Nickerson, 1998). For instance, when we first learn that someone is competent and then that they are stubborn, we might interpret the latter trait as resolution. By contrast, when we first learn that someone is unsociable and then that they are stubborn, we are likely to interpret the second trait as rigidity.

A further link that merits attention is that between impression formation and behavioral responses. As social psychologists, we investigate cognitive and motivational processes underlying impression formation because we are ultimately interested in understanding the resultant behaviors toward other individuals or social groups, whether they are hostile and discriminatory or cooperative and inclusive ("thinking is for doing"; Fiske, 1992). Moreover, as noted earlier, the main function of impression formation is

to help people respond more effectively to others (De Bruin & Van Lange, 1999). Human beings tend to approach and cooperate with valued targets and avoid and compete with dangerous or threatening targets. When we perceive others, the personality traits we infer and the social stereotypes that are activated can affect our own actions in both deliberative and automatic ways (Bargh, Chen, & Burrows, 1996; Chartrand & Bargh, 1999; Dijksterhuis & Bargh, 2001). However, as decades of research have shown, the general relation between attitudes and behaviors (Fazio, 1990)—and between stereotype activation and prejudiced behavioral responses (e.g., Devine, 1989)—is much more complex than we might initially be inclined to think. Indeed, the consistency between attitudes and behavior is moderated by a series of factors, including attitude features, situational variables, and personality characteristics (Chaiken & Stangor, 1987; Cialdini, Petty, & Cacioppo, 1981; Cooper & Croyle, 1984; Fazio, 1990; Fishbein, Jaccard, Davidson, Ajzen, & Loken, 1980; Zanna & Fazio, 1982). Accordingly, it is crucial to investigate whether the primacy of a given dimension in the impression development process gets converted into a detectable and consistent behavioral response. In other words, is the dominance of morality in the initial impression formation phase maintained in this last behavioral phase?

There are many other examples in the cognitive and social psychology literatures showing the multifaceted nature of impression development and the interaction between its separate components (e.g., self-fulfilling prophecies and behavioral conformation, Snyder, 1992; impression updating, Brannon & Gawronski, 2017; Cone & Ferguson, 2015; Gawronski & Bodenhausen, 2006; Mann & Ferguson, 2015, 2017; Mende-Siedlecki, Baron, & Todorov, 2013). Based on this evidence, a key message conveyed by the present chapter is that the analysis of a single phase of the process, in isolation from the others, is not likely to capture the complexity of the phenomenon and may therefore fail to predict outcomes of interest. On this perspective, discovering that morality dominates over sociability and competence at a single stage, while disregarding the other stages, does not warrant the conclusion that morality plays a leading overall role in impression development. Accordingly, the present work aims to enrich the investigation through the analyses of recent research findings on the role of morality at different phases of impression development (see Fig. 1). The present chapter represents the first attempt to provide a comprehensive overview of the role of morality in impression development within such an integrated framework. Although we consider impression development to be a multi-component process in which social information might be treated

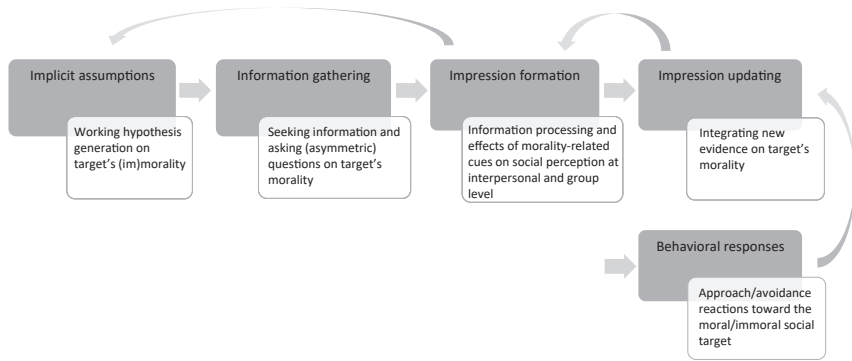


Fig. 1 The main phases of impression development and their interactions with behavioral reactions.

differently at any stage (Fiske, 1980; Kunda & Oleson, 1995, 1997; Rothbart & John, 1985), we find consistent evidence that morality is key within each phase.

3. Looking for information about others: The centrality of morality in implicit assumptions and information gathering

When forming an impression of a social target, we select information about that target that we think is informative (De Bruin & Van Lange, 2000). Indeed, impression development is a multi-component process that starts with implicit assumptions that guide the search for and selection of information useful to make a judgment about an individual or a group. In this section, we consider the evidence showing the distinct and primary role of moral content in shaping such early stages of impression development.

3.1 Implicit assumptions

We often use trait adjectives such as “fair” to describe other people’s behaviors (e.g., splitting equally the rent for a shared flat). How do social perceivers interpret such trait adjectives? What are their implicit assumptions when they use adjectives at the opposite poles of the same trait dimension such as “very unfair” vs. “very fair”? For example, when we describe a person as extremely unfair, do we assume that this person never behaves fairly? Vice versa, when we describe a person as extremely fair, do we expect that he or she will never behave unfairly?

Seminal work by Reeder and colleagues has addressed these questions. In doing so, it pioneered the empirical investigation of people's perceptions of trait-behavior relations, that is, the range of behaviors that social perceivers associate with trait adjectives at the opposite poles of a trait dimension (Reeder, 1993, 1997; Reeder & Brewer, 1979; Reeder & Coovert, 1986; Reeder & Fulks, 1980; Reeder, Henderson, & Sullivan, 1982; Reeder, Messick, & Van Avermaet, 1977; Reeder, Pryor, & Wojciszke, 1992; Reeder & Spores, 1983). The schematic model of trait attribution (Reeder & Brewer, 1979; Reeder et al., 1982) focuses on people's evaluations of trait-behavior relations for extreme traits and extreme behaviors (e.g., what range of behaviors might be inferred from the trait description of someone as "extremely immoral"; and conversely, what trait might be inferred from a single highly immoral behavior such as "placing razor blades in children's Halloween apples," Reeder & Brewer, 1979, p. 69). According to this model, there is an asymmetry for moral traits. A person who is described as extremely immoral would be "behaviorally unrestricted," meaning that they would be expected to exhibit a range of both immoral and moral behaviors (because even very immoral people can try to act in a moral way at times). Conversely, however, a person described as extremely moral would be "behaviorally restricted," meaning that they would be expected to exhibit only moral behaviors, but no immoral behaviors. Thus, a negative asymmetry in trait-behavior relations characterizes the morality domain. In contrast, the competence domain, defined by trait adjectives such as intelligent, efficient, and skillful, is characterized by an opposite asymmetry in trait-behavior relations. Social perceivers assume that a very skillful person is behaviorally unrestricted, such that their range of behaviors is wide, from very skillful to very unskillful, depending on the circumstances—even a very skillful person can sometimes perform poorly. In contrast, a very unskillful person would be behaviorally restricted—they would be assumed not to be capable of behaving very skillfully on any occasion, with their behavior restricted only to incompetent behaviors. In other words, the competence domain is characterized by a positive asymmetry in trait-behavior relations.

The negative asymmetry in the morality domain can account for the well-documented negativity effect in this domain, whereby negative information is weighed more than positive information of equal intensity—the negative asymmetry implies that negative moral information is more diagnostic than positive moral information, because it uniquely describes immoral targets, whereas positive information can describe either moral

or immoral targets (Baumeister, Bratslavsky, Finkenauer, & Vohs, 2001; Kanouse, 1984; Kanouse & Hanson, 1972; Peeters & Czapinski, 1990; Riskey & Birnbaum, 1974; Rozin & Royzman, 2001; Rusconi, Sacchi, Brambilla, Capellini, & Cherubini, 2020; Skowronski & Carlston, 1989; Taylor, 1991; Unkelbach, Alves, & Koch, 2020). A complementary account that similarly relies on people's perceptions of the interrelations between traits and behaviors is the cue diagnosticity account by Skowronski (2002) and Skowronski and Carlston (1987, 1989, 1992). According to this account, a behavior is diagnostic to the extent that it discriminates between two or more trait categories. In the morality domain, negative behaviors are generally more diagnostic than positive behaviors, because they are thought to be characteristic only of immoral actors, whereas positive behaviors characterize both moral and immoral actors (Skowronski & Carlston, 1987, p. 690).

Although the topic of trait-behavior relations has been previously studied by several scholars (Reeder, 2006; Reeder et al., 1982, 1977, 1992; Skowronski & Carlston, 1987; Tausch, Kenworthy, & Hewstone, 2007) some important questions have not yet been addressed. One such open issue concerns the generality and robustness of the negative asymmetry in the moral domain. The first empirical test of Reeder and Brewer's (1979) model did not in fact yield clear-cut results. It used a measure of perceived trait-behavior relations that captures the general perceived frequency of behaviors: The "general variability" measure (e.g., "In general, how often does a very sloppy (neat) person act very neat (sloppy)?," Reeder et al., 1982, p. 361). This measure did not yield the expected negative asymmetry in the morality domain (Reeder et al., 1982). Nonetheless, it has been commonly used in the few published studies addressing the issue of the perceived range of behaviors associated with morality and immorality (see Rusconi et al., 2020; Rusconi, Sacchi, Capellini, Brambilla, & Cherubini, 2017 for a critical analysis).

In addition, some studies on perceived trait-behavior relations have tested the negative asymmetry in morality using only a single trait adjective ("honesty", Skowronski, 2002; Skowronski & Carlston, 1987, 1992), while other research has tended to conflate morality and sociability, thus analyzing warmth rather than morality *per se* (e.g., Tausch et al., 2007, Study 3). However, early research has shown that it is important to distinguish between sociability and morality, as trait-behavior relations underlying morality can display an asymmetry opposite to that shown by trait-behavior relations underlying sociability-related traits. For instance, according to the

schematic model of trait attribution, extroversion (which is inherently linked to sociability; Campbell & Heller, 1987; Lucas, Diener, Grob, Suh, & Shao, 2000; McCrae & Costa, 1987) entails a greater behavioral flexibility than introversion, because extroverts can also behave in an introverted way at times, while introverts are mainly restricted to introverted behaviors (Reeder & Brewer, 1979, p. 73; see also Reeder et al., 1977). In this sense, extroversion-introversion would entail the same asymmetry in trait-behavior relations as intelligent-unintelligent (Reeder & Brewer, 1979, p. 74), which is opposite to the one entailed by honest-dishonest (Devine, Hirt, & Gehrke, 1990; Evett, Devine, Hirt, & Price, 1994).

Does a negative asymmetry also hold across a wider range of traits beyond the “honesty/dishonesty” dimension? Moreover, does it hold across a set of traits that are unambiguously morality-related rather than warmth-related? Furthermore, does the same asymmetric perception found for extreme traits and behaviors (e.g., “killing someone”) apply to traits and behaviors that are evaluatively moderate (e.g., “cheating on an exam”), and thus more commonly encountered in everyday life?

These questions have spurred our research on the implicit assumptions that guide impression development (see Reeder, 1993). In a set of experiments, we investigated people’s perceptions of trait-behavior relations by considering moderate traits and behaviors (Rusconi et al., 2017). We used a measure of the perceived frequency of trait-inconsistent behaviors (thus of “general variability,” Reeder et al., 1982). For example, in Study 1, we asked participants questions such as: “How likely do you consider it that an honest person would behave in a dishonest fashion?” and “How likely do you consider it that a dishonest person would behave in an honest fashion?” on 11-point scales ranging from 0% (*totally unlikely*) to 100% (*totally likely*). We did this for 15 morality traits (e.g., “honest”/“dishonest,” “fair”/“unfair,” “tolerant”/“intolerant”) pretested for high dimension relatedness; three of these traits (i.e., “righteous”/“unrighteous,” “sincere”/“insincere,” and “fair”/“unfair”) were further pretested for the polarization on the valence continuum such that the positive and negative trait poles were perceived as equally extreme (Rusconi et al., 2017, Study 1). In another study (Rusconi et al., 2017, Study 3), we used concrete behavioral descriptions (e.g., “telling the truth”) instead of abstract traits (e.g., “sincere”).

Across four main studies ($N=409$) and a small-scale meta-analysis, with both Italian and American participants (Study 4), and different question phrasings (e.g., percentages in Study 1 vs. frequentist questions in Study 2), we found that participants thought that a person described as moderately

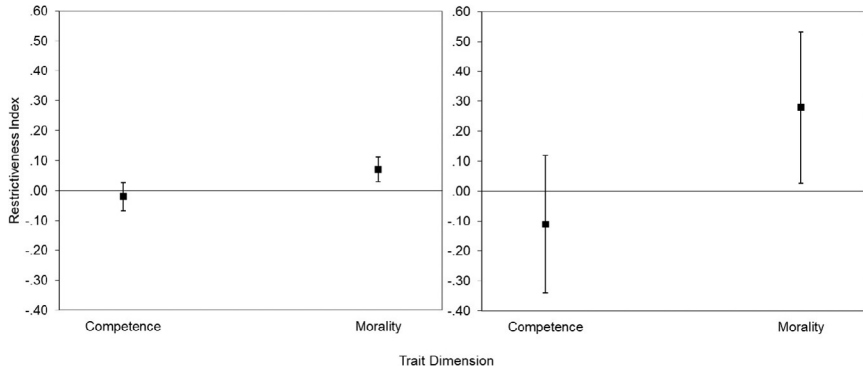


Fig. 2 The restrictiveness index (the difference between the likelihood/frequency of trait-inconsistent behaviors for the positive and negative trait poles measured on 0–10 scales) for competence-related traits (not significantly different from 0) and morality-related traits (significantly positive) in Study 2 (subset of traits balanced for valence) using abstract categories (left panel) and Study 3 using actual behaviors (right panel). The index was weighted for the probability of occurrence of the behaviors in Study 2 but not in Study 3. Error bars represent 95% confidence intervals. Adapted from Rusconi, P., Sacchi, S., Capellini, R., Brambilla, M., & Cherubini, P. (2017). *You are fair, but I expect you to also behave unfairly: Positive asymmetry in trait-behavior relations for moderate morality information*. *PLoS One*, 12, e0180686.

moral would be more likely to engage in trait-inconsistent behaviors than would a person described as moderately immoral (see Fig. 2). In other words, we found a positive asymmetry in the morality domain for moderate trait-behavior relations as opposed to the negative asymmetry found for extreme morality-related traits and behaviors. Such evidence is consistent with recent work by Meindl, Johnson, and Graham (2016) demonstrating an “immoral assumption effect,” whereby people more readily infer a target person’s immorality given an immoral behavior than they infer unsociability based on an unsociable behavior (Meindl et al., 2016). We interpreted this reversal of the negative asymmetry in the morality domain from a socio-functional perspective. In everyday life, moderate traits and behaviors are more common than extreme traits and behaviors. Furthermore, social perceivers’ assumptions should be especially sensitive to immoral behaviors because they can represent a threat (e.g., “being cheated on”). In this sense, it would be self-protective to question other people’s morality and to expect that even a moderately moral person might behave immorally. In contrast, it has less functional value to expect that moderately immoral people would behave morally, and so perceivers should be less attuned to expect this (Rusconi et al., 2020, 2017). This “cynical” view suggests that

morality is sufficiently central to defining whether someone else represents a threat or an opportunity that it can unseat the default assumption of a moderately positive world (e.g., Fiske, 1980; Jones & Davis, 1965).

3.2 Information gathering

Research from our laboratories has found evidence in line with a socio-functional interpretation of social perceptions at another stage of impression development as well: information gathering. As detailed earlier in this chapter, research using the two-dimensional model of social perception has shown that warmth information is processed preferentially at earlier stages of information processing (Abele & Bruckmuller, 2011; Ybarra et al., 2001) without distinguishing between sociability and morality. However, our research indicates that it is in fact morality information that dominates at this early stage.

Our first research on how people search for information to form impressions of others demonstrated that morality plays a distinct and primary role compared to sociability and competence in people's information-search strategies (Brambilla, Rusconi, Sacchi, & Cherubini, 2011). Across two studies, we addressed two different aspects of the information-search process: People's trait selection and their question-asking strategies. In the first study, participants were asked to evaluate the relevance of 15 positive traits balanced for favorability and evaluative extremity (5 for each dimension of morality, sociability, and competence) for evaluating a target person with reference to different goals: morality-relevant (revealing a secret to the target), sociability-relevant (inviting the target to a party), competence-relevant (hiring the target for a research project), and global (forming an impression of the target) goals. The results revealed a robust main effect of morality regardless of the goal type. Moreover, in the global goal condition, when participants were asked to form a global impression of the target, they indicated greater interest in obtaining information about morality-related traits, thus attesting to morality's primary role in information gathering. Importantly, morality-related and sociability-related traits were differentially selected in all four goal conditions, suggesting that they may represent two distinct evaluative contents (see Fig. 3). Our findings fit with prior findings documenting that people highly value trustworthiness (a morality-related trait) in others. Indeed, Cottrell, Neuberg, and Li (2007) found that U.S. students rated trustworthiness as the most desirable characteristic for an ideal person to possess.

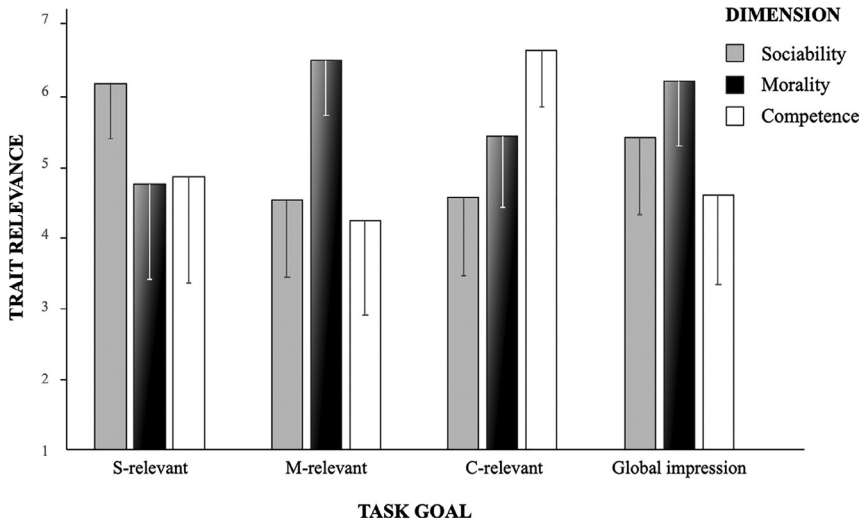


Fig. 3 Morality-related traits drive information seeking when individuals are asked to form a global impression of a social target. Error bars represent standard errors of the means. Adapted from Brambilla, M., Rusconi, P., Sacchi, S., & Cherubini, P. (2011). *Looking for honesty: The primary role of morality (vs. sociability and competence) in information gathering*. *European Journal of Social Psychology*, 41, 135–143; Study 1.

In a second study, we asked participants to rank and select a query from a set of questions that inquired about a target person’s morality, sociability, and competence traits (Brambilla et al., 2011, Study 2). The focus on question selection is original in the investigation of stereotype content, but social cognition researchers have long studied the strategies social perceivers use when asking questions to form an impression of a target person (e.g., Cameron & Trope, 2004; Dardenne et al., 2011; Dardenne & Leyens, 1995; Rusconi et al., 2012; Sacchi et al., 2012; Semin & Strack, 1980; Snyder & Swann, 1978; Trope & Thompson, 1997). Research in the last few decades has shown that category-based expectations influence the type of questions people ask as a function of the anticipated answer (Sacchi et al., 2012; Trope & Thompson, 1997). For example, asking a neutral question such as “Do you like parties?” to inquire about the extroversion of a target person would generate answers that are *symmetric* in terms of their likelihood and evidentiary strength (e.g., “yes” vs. “no”). For instance, a “yes” answer would indicate that the target person is extroverted with the same evidentiary strength that a “no” answer would indicate that the target person is introverted. In contrast, asymmetric questions entail an asymmetry in the likelihood and evidentiary strength of the anticipated answers. For example, a “yes” answer to the

question, “Do you always stay at home reading books on Saturday nights?” would indicate that the target person is introverted with a greater strength than a “no” answer would indicate that they are extroverted (e.g., someone might not be extroverted even if he or she does not always stay at home reading books on Saturday nights). In this sense, this question *asymmetrically disconfirms* the hypothesis that the target person is extroverted. Finally, the question, “Are you always the life of parties?” would *asymmetrically confirm* the extroversion hypothesis because a “yes” answer more strongly indicates that the target person is extroverted than a “no” answer indicates that they are introverted (e.g., someone might not be introverted even if he or she is not always the life of parties) (see also, [Cameron & Trope, 2004](#); [Sacchi et al., 2012](#); [Trope & Thompson, 1997](#); for an analysis of the trade-off between the likelihood and the evidentiary strength of the anticipated answers to dichotomous questions see [Rusconi et al., 2012](#); [Sacchi, Rusconi, Bonomi, & Cherubini, 2014](#)).

In our study, we tested the hypothesis that morality has a primary and distinct role in information seeking ([Brambilla et al., 2011](#), Study 2). We first pretested a list of questions to determine their degree of symmetry/asymmetry and then asked participants to select and evaluate these questions in terms of relevance for determining whether a target person had a specific trait (morality-related vs. sociability-related vs. competence-related) or not. Prior work suggests that people tend to use asymmetric strategies when searching for information about cognitively salient hypotheses ([Trope & Thompson, 1997](#)). If morality dominates information gathering, one would therefore expect that hypotheses associated with morality are highly salient. Moreover, as articulated earlier, learning about immoral information should be especially relevant. Thus, people should select more asymmetrically disconfirming questions when seeking information about moral traits. By contrast, people should be more symmetric in searching for information about sociability and competence attributes due to the lower salience and relevance of these characteristics at the information-gathering stage. Confirming this prediction, we found that the questions selected and deemed relevant to investigate the presence of morality-related traits (i.e., “sincere,” “honest,” “trustworthy”) were indeed more asymmetrically disconfirming than the questions preferred for competence- and sociability-related traits. The morality question constrained the anticipated answer toward a highly informative falsification of those traits (e.g., “Does he cheat on occasion?” to inquire about the target’s honesty). By contrast, questions selected and deemed relevant to investigate the presence of sociability- and

competence-related traits tended to be more symmetric (e.g., “Does he like staying with other people?”). While the basic asymmetry for moral traits may be due to the greater salience of this dimension at the information gathering stage (Trope & Thompson, 1997), the fact that people selected a disconfirming rather than confirming strategy is instead explained by a socio-functional perspective. In sum, people choose disconfirming questions for moral traits because this represents a self-protective strategy, which enables them to avoid potential threats. These findings can be integrated with those on implicit assumptions reviewed in the previous section because they show how social perceivers are acutely attuned to finding flaws in other people’s morality.

Taken together, the results reported so far suggest that the previously established dominance of warmth at early stages of impression development can be best interpreted as an effect of morality and not as an effect of sociability. The primacy of morality reflects the close connection between moral content and the perception of threat. In essence, our research suggests that the functionalist account previously used to explain the primacy of warmth can profitably be repurposed as instead explaining the primacy of morality. Accordingly, we put forward the idea that moral traits provide the most reliable guide to whether another person’s deepest intentions are fundamentally good or bad, an idea that we tested more explicitly in investigations of subsequent stages of impression development.



4. Evaluating other individuals and groups: Moral character drives first impressions

Given that morality is key to establishing intentions, its primacy is not confined to implicit assumptions and information seeking; morality is also key in shaping the first evaluations we make of other people. In this section, we review evidence from our laboratories showing that morality information is a stronger predictor of overall impressions than both competence and sociability information. In doing so, we consider interpersonal and group perception, respectively.

4.1 Interpersonal impressions

As described in the Introduction, until recently the role of moral traits in person perception was shrouded in conceptual ambiguity, owing to the lack of precision in distinguishing moral traits from sociability traits. However, over the past 10 years, research from our group has established moral

character traits as the primary drivers of the interpersonal impressions that people form, and as distinguishable from sociability traits.

An early study that set the stage for much later work in this area is due to [Asch \(1946\)](#). Asch was principally interested in the way that people combine trait information to form an overall impression of a person. However, in pursuing this question, he also made an important early discovery about the kinds of traits that are central to person perception. One of his chief interests was whether people process traits in isolation, combining them additively to construct an overall person impression, or whether instead, they combine them dynamically and interactively, such that the relations between traits play a determining role (see also [Section 2](#)). His research strongly favored the latter view, demonstrating that (i) the order in which traits are presented in a list has an impact on the impressions people form, such that lists beginning with positive traits yield more positive overall impressions than do identical lists in reverse order (ii) some trait dimensions such as *warm-cold* are particularly “central,” whereas other trait dimensions (e.g., *polite-blunt*) are more “peripheral,” and (iii) even apparently central trait dimensions such as *warm-cold* can assume more or less importance depending on the other traits in the list they are presented with. Of particular importance to the present section are points (ii) and (iii).

To establish point (ii), Asch made the following observations. When the single trait terms “warm” or “cold” are added to otherwise identical lists of six traits, the overall impressions that people form of the target are widely disparate (Experiment 1). For instance, participants were much more likely to infer that a warm as opposed to a cold target was generous (91% vs. 9%), wise (65% vs. 25%), humane (86% vs. 31%), altruistic (69% vs. 18%), and so on. Interestingly, though, this warm-cold divergence was not seen for inferences of the morally central trait honesty (98% vs. 94%). In contrast, when this same experiment was done but with “polite” and “blunt” replacing “warm” and “cold,” the disparities in overall impressions were greatly reduced (Experiment 3). Thus, Asch interpreted the *warm-cold* dimension as central, and the *polite-blunt* dimension as more peripheral.

In a later variant on this study, when participants were presented only with a single trait term, either “warm” or “cold,” they also inferred radically different overall personalities about its possessor (Experiment IXa). For instance, as compared with the cold target, the warm target was also inferred to be wise (91% vs. 11%), humane (100% vs. 17%), and altruistic (91% vs. 3%). Of perhaps more surprise, these inferences also generalized to seemingly unrelated traits—95% vs. 57% for inferences of whether the target was also

good-looking, and 95% vs. 9% for inferences of whether the target was imaginative. Again, however, this discrepancy was significantly reduced for inferences of honesty—100% vs. 81%. These data therefore show that a change in a single, central trait, such as warmth, can produce “a widespread change in the entire impression” (p. 264). However, they also suggest some potential limits in the centrality of warmth, as well as a potential divergence between inferences of warmth and honesty.

Another study by [Asch \(1946\)](#) further illustrates these limits. The addition of the term “warm” to trait lists that contained solely negative terms did not produce a positive transformation in the inferences that participants drew (Experiment 4). Instead, the meaning of warmth itself seemed to be reinterpreted, such that it was drained of its positive transformative power. When it was added to the list: Obedient—weak—shallow—unambitious—vain, warmth was frequently interpreted as a kind of submissiveness or dependency, whereas when it was added to the list: Vain—shrewd—unscrupulous—shallow—envious, it was interpreted as insincerity. Thus, while Asch did show that the *warm-cold* dimension was central in some respects, his research also hinted at limits to its centrality. Asch did not conduct similar studies evaluating the positive transformative power of more clearly moral traits. To the best of our knowledge, no such studies have been conducted.

Following Asch, a seminal study in person perception was conducted by [Rosenberg et al. \(1968\)](#). Participants were asked to sort 64 trait terms into groups of traits that they judged as likely to occur within the same person. The results of Rosenberg’s multidimensional scaling analyses yielded two trait dimensions, which they interpreted as reflecting a good-bad social dimension and a good-bad intellectual dimension. Rosenberg et al. were circumspect in drawing any strong conclusions about which of these two dimensions was primary in impression formation; and in truth, their data were not geared toward drawing a conclusion of this sort. However, this model served as a precursor to later, highly influential two-dimensional models of warmth and competence, in which warmth is considered primary (for a discussion, [Abele et al., 2021](#)).

Later research on interpersonal impressions placed greater emphasis on morality as fundamental to person perception. A seminal article by [Wojciszke, Bazinska, et al. \(1998\)](#) made this case persuasively. Wojciszke, Bazinska et al. sought to compare whether morality or competence information was more important in determining interpersonal impressions. This research used a variety of methods to investigate this question. In one study, Wojciszke, Bazinska et al. simply asked participants to nominate

the 10 “traits that you personally think are most important in others and that draw your attention more than other traits” (Study 1). The researchers then analyzed the top five traits produced by each participant (only one third nominated 10 traits, but 96% nominated at least five traits) for their relatedness to morality and competence. The clear finding was that traits nominated as most important were related to morality significantly more than they were to competence. In another study, Wojciszke et al. asked participants to rate 20 individuals they were acquainted with on 20 traits, 10 that related to morality and 10 that related to competence (Study 3). Participants also provided valenced global impressions of each individual. Results showed that participants’ global impressions were significantly better predicted by the moral traits than by the competence traits. A final experimental study manipulated morality and competence information in order to examine their respective effects on global impressions (Study 4). It did so by providing descriptions of everyday behaviors rather than trait descriptions. Here too, it was found that morality information was a more important determinant of the overall impressions people formed. The effect size for moral information ($\eta_p^2=0.95$) was more than double that for competence information ($\eta_p^2=0.41$; see p. 1260). Echoing some of Asch’s earlier findings, there was also evidence that trait information is sometimes integrated non-additively. The most striking aspect of this finding was that, whereas competence significantly enhanced people’s impressions of a moral target (compared to incompetence), it significantly lowered people’s impressions of an immoral target. In essence, the effect of competence on overall impressions was found to be conditional on the target’s morality—its effect was positive when the target was moral but negative when the target was immoral.

Wojciszke, Bazinska, et al. (1998) interpreted these findings in striking terms. They argued that people care about morality in others for self-interested reasons. Knowing another person’s morality provides information about whether they are likely to be helpful or harmful to the self, which in turn should guide decisions about whether to approach or avoid the person (see also, Peeters, 1983; Wojciszke, 2005). Summarizing their view, Wojciszke et al. wrote: “M [moral] categories occupy a privileged position in global evaluative impressions of others because they are instrumental in locating others on the approach-avoidance dimension to a higher extent than any other concept (C [competence] traits included)” (p. 1260). The interactive contribution of morality and competence categories on impressions (Study 4) fits with the view that moral categories are instrumental for

approach-avoidance behaviors. Indeed, a person who is both moral and competent should be perceived positively because efficient moral individuals will be best able to achieve moral outcomes. By the same logic, a competent but immoral individual should be evaluated extremely negatively, since they have the expertise and capacity to achieve harmful and immoral outcomes (Wojciszke, 2005).

While Wojciszke, Bazinska, et al. (1998) findings were groundbreaking, they also made several important methodological innovations that guided later work. Chief among these was the careful measurement of traits' relevance to various higher order dimensions of interest. In selecting morality and competence traits for use in later correlational and experimental studies, the authors relied on independent data pertaining to the relatedness that each trait had with both morality and competence dimensions (these data were drawn from Wojciszke, Dowhyluk, & Jaworski, 1998). Consequently, they were able to select traits based on empirical evidence rather than relying solely on their own assumptions. They also carefully equated traits on valence (in their terms, "favorability"), thus removing valence as a potential confounding explanation for the differences observed between morality and competence traits. However, Wojciszke, Bazinska, et al. (1998) did not attempt to distinguish traits that were relevant only to morality (e.g., "sincere") from those that are relevant to both morality and sociability (e.g., "understanding"). In other words, there remains some overlap between the morality dimension used in their studies and the construct of warmth (see also Abele & Wojciszke, 2007).

Influenced by Wojciszke, Bazinska, et al. (1998), our own research group investigated the specific comparison between morality and sociability traits. The first step in our research program was to move beyond top-down experimenter stipulation, and instead investigate traits perceived relevance to higher order dimensions of interest in a bottom-up way. Much as Wojciszke, Dowhyluk, et al. (1998) had done, we asked participants to indicate, for 170 traits, how relevant each trait was for judging a person's morality, as well as their warmth^a (and in later studies, sociability) and competence

^a In Goodwin et al. (2014), we measured traits' relevance to warmth rather than sociability, because we interpreted sociability and warmth as synonymous. Thus, we expected that relevance to warmth would be judged similarly to relevance to sociability. Indeed, later studies confirmed this assumption. When we asked directly about traits' relevance to sociability (Landy, Piazza, & Goodwin, 2016), we found that the ratings were very similar to those offered by participants who judged traits' relevance to warmth. For the sake of consistency and ease of exposition, we use the term "sociability" when describing the results of the paper by Goodwin et al. (2014), but readers should keep in mind that the question asked of subjects pertained to "warmth" in these studies.

(alongside several other dimensions of interest; see Goodwin et al., 2014; Landy et al., 2016). For each dimension, we asked subjects to imagine that they were trying to figure out how much of that dimension a person possessed. Then, for each trait, we asked participants to indicate how useful having information about the trait would be for telling them about the relevant dimension. This initial investigation revealed that morality and sociability were quite strongly associated across the entire set of traits ($r=0.72$, $p<0.001$). One reason for this is that many traits in the set were, by design, irrelevant to either morality or sociability and were rated equally low on both dimensions (these traits were typically more related to competence). However, when only the top 50 most relevant moral character traits are considered, the relation between morality and sociability dropped to non-significance ($r=0.13$, $p=0.38$).

This study's greater significance, however, was in allowing clear manipulations of morality and sociability in later studies, which enabled tests of the importance of these dimensions in predicting global impressions. In one such study (Study 3), we asked participants to consider seven separate individuals they were either personally acquainted with (a friend, a parental figure, someone they admired, someone they did not respect, and someone they disliked) or that they knew well from public discourse (Presidents Barack Obama and George W. Bush). Participants rated each of these individuals on 32 distinct traits and also reported their global impression of them (how positive or negative their overall impression of the person was). The trait adjectives were carefully preselected, so as to fall into one of four categories: traits that were previously rated as being highly informative about morality, but less so about sociability (e.g., *honest, trustworthy, just*); traits that were highly informative about sociability, but not morality (e.g., *warm, sociable, easy-going*); traits that were highly informative about both morality and sociability (e.g., *kind, humble, empathetic*); and traits that were informative about neither morality nor sociability (e.g., *intelligent, logical, athletic*). For each of the seven targets, we then regressed global impressions on composite measures of each of these four categories of traits. The predominantly morality traits (e.g., *honest, trustworthy, just*) significantly predicted positive global impressions for six out of the seven targets and did so marginally for the seventh target. No other trait category enjoyed nearly as much predictive success, not even those traits that reflected equal parts morality and sociability (e.g., *kind, humble, empathetic*). The predominantly sociability traits (e.g., *warm, sociable, easy-going*) significantly predicted impressions only for one of the seven targets, and even for this target, the predominantly

morality traits had the strongest predictive power. These results do not reflect mere regression artifacts. The pattern of raw correlations similarly showed that morality traits were more strongly related to global impressions than sociability traits for all seven targets.

In later studies, we experimentally manipulated hypothetical targets' possession of sociability and morality traits in order to examine their respective roles in producing global impressions. In one simple study (Study 4), we crossed information about morality and sociability at a very broad level. One target was described as moral and warm, a second as moral but cold, a third as immoral but warm, and a fourth as immoral and cold. Both morality and sociability information had strong effects on overall impressions, but the overall effect size was larger for morality ($\eta_p^2 = 0.80$) than for sociability ($\eta_p^2 = 0.66$). Moreover, the target who was rated as moral but cold was rated significantly more positively than the target who was rated as immoral but warm ($d = 1.56$) (see Fig. 4).

Later experimental studies provided more granular information about the traits that hypothetical targets possessed and explored impressions across a number of distinct social roles. Four hypothetical targets were initially compared in a between-subjects design (Study 5). To avoid ceiling effects, all targets were described as lacking particular abilities. In three cases, the

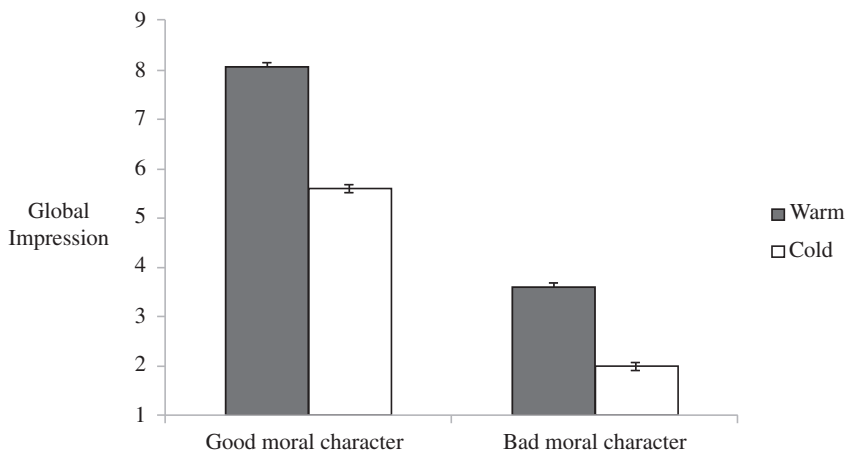


Fig. 4 Global impressions of a hypothetical individual who was described as either moral or immoral and either warm or cold. Results show the importance of morality in influencing global impressions. Error bars represent standard errors of the means. Adapted from Goodwin, G. P., Piazza, J., & Rozin, P. (2014). Moral character predominates in person perception and evaluation. *Journal of Personality and Social Psychology*, 106, 148–168; Study 4.

target was also described as possessing five additional traits that were either predominantly morality traits, predominantly sociability traits, or traits that combined both dimensions (the specific traits were similar to those used in the correlational study described above). A fourth target was not described as possessing any additional traits. As a measure of global impressions, participants were asked to indicate how they felt (negative-positive) and how pleased they were to have this individual fulfill each of 12 distinct social roles, on 100-point scales. The roles ranged widely, including some that involved little intimacy and contact (cashier, social acquaintance) as well as some that involved considerable intimacy and contact (romantic partner, parent). They also varied in interdependency (e.g., highly interdependent, but low intimacy roles included a surgeon and a judge in legal proceedings one was involved in). The main comparison of interest was between global impressions of the two targets described as moral (only) and warm (only). For 75% of the roles (9 out of 12), the moral target was judged significantly more positively than the warm target. The remaining three roles trended non-significantly in the same direction. Interestingly too, across roles, the more important the role was rated by participants (a measure that was included at the end of the study), the greater the relative predominance of the moral target over the warm target.

A further experimental study replicated these results with a slightly different design (Study 6). The same 12 roles were examined, but this time morality and sociability traits were pitted directly against each other. Of most interest was the comparison between a target described as possessing high morality and low sociability, and a second target described as possessing low morality and high sociability (in this study, there was no mention of additional ability traits). The results closely replicated those of the previous study. The high morality, low sociability target was judged more favorably than the low morality, high sociability target for 75% (9 out of 12) of the roles. This same trend was observed non-significantly for the remaining three roles. Once again, the relative predominance of morality was greater as the roles increased in perceived importance. This set of experimental studies therefore demonstrates quite clearly that morality traits have a greater causal role in shaping positive global impressions of others than do sociability traits.

With any study of this sort, one might worry that the trait selection unwittingly favored the hypothesis in question. Three factors speak against this concern. One is that the selection of traits in these studies was significantly constrained by prior norming data, and by the need to select only traits

that fitted within the relevant morality–sociability cells of each experimental design. This left few degrees of freedom for experimenter bias to exert itself. A second factor is that in unpublished data relevant to this project (Goodwin, Piazza, & Rozin, 2012), we found that when we asked participants to nominate the most important traits in a coworker, or alternatively, their daughter’s fiancé, moral traits once again rose to prominence over non-moral traits. The unconstrained nature of this design (subjects nominated traits of their own) removes the concern about trait selection.

A third factor comes from the final study published in Goodwin et al. (2014). This was a naturalistic, correlational study, but unlike the previous correlational study, participants did not rate specific traits. Instead, they rated their global impressions of individuals described in obituaries in the *New York Times*. Each subject rated how positive or negative their global impression was of three individuals, who had each been randomly selected from a full set of 235 obituaries. Separate from this, we recruited two hypothesis-blind coders who read through each of the 235 obituaries and reported how much each obituary provided information about three dimensions: (1) the target’s achievements, talents, abilities (or lack thereof), (2) their moral or immoral character, and (3) their friendliness and sociability (or lack thereof). The coders also indicated whether the obituary provided positive or negative overall information about each of these dimensions. These codings were then used to predict the overall impressions gained by naïve participants from reading each obituary.

In terms of the information contained within the obituaries, the most information was conveyed about the deceased individuals’ abilities, followed by their morality, and finally their sociability. These pairwise comparisons were all significant. The emphasis on abilities is not surprising given that the deceased individuals had all achieved some level of professional renown. However, it is notable that morality information seemed to have greater prominence than did sociability information in summary accounts of people’s lives. The most important analysis was to regress global impressions on the coders’ ratings of ability, morality, and sociability information. All three variables independently accounted for variance in global impressions, but the relationship was stronger for morality than it was for sociability. First order correlations showed that morality information positively predicted overall impressions ($r=0.53$) significantly more strongly than did sociability information ($r=0.33$), and slightly less strongly than ability information ($r=0.58$). These same results held even controlling for the observed difference in the relative amounts of information conveyed about morality and sociability.

The overall picture yielded by these studies is remarkably consistent. Regardless of study design, context, or measurement technique, morality information was consistently shown to be more strongly predictive, and in some cases, more determinative of overall impressions than was nonmoral information. Thus, it appears that morality information is indeed central to the impressions and evaluations we form of other people. This conclusion fits with the argument articulated earlier, namely that morality information is critical in social life, primarily because it provides information about the nature of another person's intentions toward the self. These findings are also consistent with the large body of work on face perception showing that facial cues of trustworthiness have a greater role than facial cues of either sociability or competence in predicting first person impressions (Willis & Todorov, 2006; see also Todorov & Oh, 2021; Todorov, Olivola, Dotsch, & Mende-Siedlecki, 2015). Indeed, these studies show that such a primacy of facial trustworthiness is due to the fact that facial trustworthiness is helpful to define whether other individuals are an opportunity or a threat (Brambilla, Biella, & Freeman, 2018; Brambilla, Masi, Mattavelli, & Biella, 2021).

One implication of these findings is that the emphasis placed by prior researchers on warmth as revelatory of other's intentions may have been inaccurate (e.g., for a review, see Abele & Bruckmuller, 2011; Koch et al., 2021). Indeed, as argued in the previous section, the previously established primacy of warmth in impression development is driven by moral characteristics rather than sociability.

What then, does sociability information provide, if not information about intentionality? What social function does it serve? And how does this function complement the information provided by morality? In a later investigation, we pursued this question, aiming to shed light on both when and why morality, competence, and sociability information contribute positively to overall impressions (Landy et al., 2016).

The first step was to seek further evidence that morality, competence, and sociability are distinct in person perception. In two separate studies, we asked participants to think of known individuals fitting various descriptions (e.g., in Study 1a, people that they variously liked, disliked, respected, or disrespected, as well as a parental figure, and a mentor). We then simply asked participants to rate these individuals on 18 traits that prior norming data had indicated as predominantly reflecting morality (e.g., *honest*, *trustworthy*), sociability (*warm*, *sociable*), or competence (e.g., *competent*, *intelligent*). In one of these studies (Study 1b), the set of 18 traits also included each of the

pairwise combinations of these dimensions (e.g., morality–competence: *principled, disciplined*; morality–sociability: *humble, compassionate*; sociability–competence: *cooperative, enthusiastic*). Regardless of the target, or the particular traits employed, analyses showed that participants’ ratings reliably factored into the three relevant trait dimensions that were readily interpretable as morality, sociability, and competence. Moreover, in both studies, across every single target, the morality factor correlated more highly with the competence factor than it did with the sociability factor. These results are informative, because they demonstrate a clear separation between the three trait dimensions, in particular, between morality and sociability. Two-dimensional models of warmth and competence make a different prediction for these analyses, predicting instead that the morality and sociability traits should group together as a single dimension (Abele et al., 2021; Koch et al., 2021). Clearly, however, the results instead favored a reliable separation between all three dimensions (see the general discussion for a more critical analysis).

In subsequent experiments, we investigated a functional model of the roles that morality, sociability, and competence play in social life. Our reasoning was that morality is fundamental, because it offers a window into other people’s intentions—whether they are likely to be helpful or harmful. As such, moral traits should be regarded as unconditionally positive in other people—that is, positive, regardless of the other traits that a person possesses. In contrast, both competence and sociability are secondary. They offer information about the likelihood that another person will fulfill their intentions. Competence conveys this relatively directly—more competent people are by definition more successful at goal pursuit. However, sociability conveys this same information, albeit more indirectly. A highly sociable person is likely to pursue their goals effectively, because their sociability enables them to recruit allies and persuade others to support their goals. Competence and sociability therefore both function as “amplifiers” of a target person’s prevailing morality. As such, they should be valued only conditionally—conditional on a target person’s morality. This logic should be reflected in a significant interaction between a target’s level of morality, and the level of their competence or sociability traits—competence and sociability traits should enhance people’s impressions of moral targets, but not their impressions of immoral targets. As such, immoral but sociable or competent targets should be seen as highly threatening, as those individuals are best able to enact their malevolent intentions (see also Wojciszke, Bazinska, et al., 1998).

We demonstrated support for this prediction across several studies. For instance, we found that whereas moral targets were always viewed positively (and immoral targets were always viewed negatively), regardless of their other traits, sociable and competent targets were viewed in a more mixed fashion—positively when they were also moral, but negatively when they were immoral (Studies 2 and 3). This result reveals the dominance and relative unconditionality of morality information in person perception, suggesting that, contra Asch, it is really morality traits that are most central. Additional results demonstrated an even more striking pattern. In one study, we asked participants to indicate what additional traits they would prefer in a social target (Study 4). Morality was always preferred over immorality, regardless of whether a target was initially described as competent or incompetent, or as sociable or unsociable. However, we observed a striking reversal for competence and sociability. When targets were initially described as moral, subjects preferred that the target also possess both competence and sociability. However, when targets were initially described as immoral, participants actually preferred them to be both *incompetent* and *unsociable* (see Fig. 5). This finding underscores the conditionality of these secondary trait dimensions in a manner that supports the functional logic described above. We interpret this result as showing that ordinary participants do indeed appreciate that competence and sociability amplify a target's prevailing intentions, which provides the reason why they may not be preferred in immoral targets.

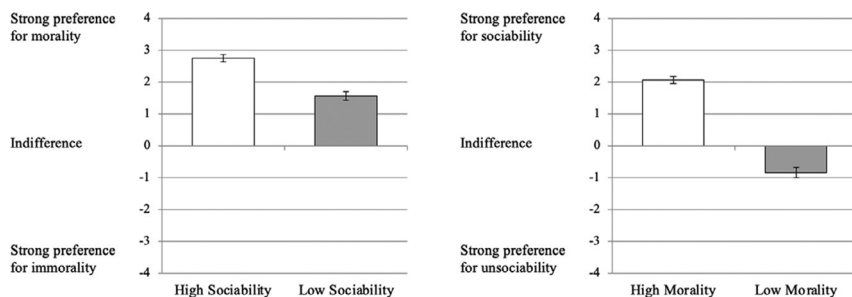


Fig. 5 Participants' preferences for morality and sociability in hypothetical targets. Results indicate the unconditional preference for morality regardless of pre-existing sociability (left panel), and the conditional preference for sociability as a function of morality (right panel). Error bars represent standard errors of the means. *Adapted from Landy, J. F., Piazza, J., & Goodwin, G. P. (2016). When it's bad to be friendly and smart: The desirability of sociability and competence depends on morality. Personality and Social Psychology Bulletin, 42, 1272–1290; Study 4.*

This result also generalized to another context, which relied on a different dependent variable, namely anticipated impression change (Study 5; see also Section 5). When judging targets who were initially described as moral or only mildly immoral, participants anticipated that their overall impressions of these people would change positively if they learned that the target also possessed competence or sociability traits. In contrast, however, for targets initially described as deeply immoral, participants anticipated that their impressions would become more negative if they subsequently learned that the target possessed competence or sociability traits (Study 6). The reversal in this context further buttresses the distinction between morality traits on the one hand, and sociability and competence traits on the other hand. It also helps rule out an alternative interpretation of the preference results based on what people think the immoral target deserves. On this alternative, people prefer that immoral targets not possess competence and sociability traits, because they think such targets do not *deserve* the benefits to be derived from such traits. However, this alternative explanation cannot account for why people think their impressions of an immoral target would become even more negative if that target were also known to be competent or sociable.

These results should not be taken as indicating that morality traits are unconditionally positive in every facet of social life, as there may be some circumstances in which morality traits are not preferred. For instance, although this has not been tested, individuals who are themselves immoral may not prefer morality in others. Similarly, and again untested, individuals who are made to reflect on their own immoral actions may also not prefer morality in others. Nor should it be assumed that all moral traits without exception are valued unconditionally. Indeed, as other work we have conducted suggests, this pattern of unconditional valuation is most likely for what might be called “core goodness” traits such as honesty, and trustworthiness, but perhaps unlikely for “value commitment” traits such as dedication and discipline (Goodwin, 2015; Piazza, Goodwin, Rozin, & Royzman, 2014). Although such value commitment traits are rated as quite moral by default (though not as moral as core goodness traits), they also tend to serve as amplifiers of a person’s prevailing morality, such that their presence can make an immoral agent worse (Piazza et al., 2014). However, what the results do show is that prototypical morality traits are generally preferred, *independent of the other traits that a target possesses*, whereas this is not true of competence and sociability traits. In fact, taken together, the results suggest that the relation between morality and sociability is no closer than the

relation between either morality and competence, or sociability and competence. As such, it seems clear that morality stands apart from these other dimensions in two important ways. Morality is distinct, because of the critical information it conveys about others' intentions, which in turn causes it to assume a dominant role in driving interpersonal impressions. In sum, the totality of the evidence amassed thus far suggests that morality is the most important aspect driving impression formation and person evaluation in daily life.

4.2 Group impressions

Our work further suggests that morality is central in shaping group perception. The extensive work on the Stereotype Content Model and previous two-dimensional models of group perception (Phalet & Poppe, 1997; Poppe & Linssen, 1999) revealed that stereotypes are not uniformly positive or negative, but rather can be simultaneously positive on warmth and negative on competence, or vice versa (Cuddy et al., 2008; Fiske et al., 2002). Thus, derogated groups (e.g., welfare recipients, homeless individuals) are rated low on both dimensions (see also Harris & Fiske, 2006), whereas the ingroup or the culture's main reference groups (e.g., Americans, Whites) are rated as high on both dimensions. Most groups are viewed as competent but not warm (e.g., Jews, Asians; see also Lin et al., 2005) or as warm but not competent (e.g., disabled individuals, the elderly). The studies in this area have also argued that perceivers prioritize warmth information when evaluating ingroup and outgroup members, because warmth information is functional in revealing others' intentions (Fiske, 2018). However, research conducted in our laboratories reveal that jettisoning the warmth dimension and distinguishing between sociability and morality (as done in the recent works on interpersonal impressions described above) can enrich the examination of group perception (including the evaluation of other groups and ingroup members). We review evidence of the role of morality in shaping group impressions by first considering outgroup perception.

4.2.1 Outgroup perception

The first systematic empirical evidence showing the distinctiveness of morality in impressions of outgroups was provided by Leach et al. (2007).

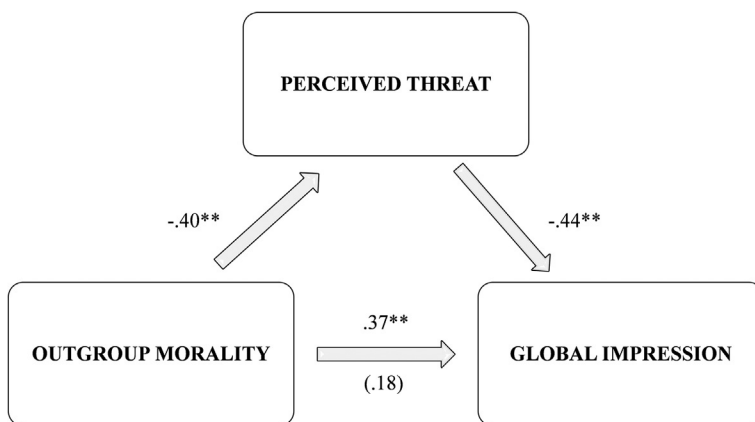
Indeed, [Leach et al. \(2007; Study 3\)](#) revealed that traits capturing outgroup morality (e.g., sincere, trustworthy) were distinguishable from traits capturing outgroup sociability (e.g., friendly, likeable) and competence (e.g., intelligent, skilled).

This early evidence spurred our research on the relative importance of morality, sociability, and competence in predicting impressions about outgroups. In a first set of three experiments, we asked Italian participants to provide their first impression (using a Likert-type scale ranging from 1—extremely negative to 7—extremely positive) about a fictitious ethnic group named the Ortadesi. We manipulated the levels of morality, sociability, and competence ascribed to the group ([Brambilla, Sacchi, Rusconi, Cherubini, & Yzerbyt, 2012](#)). In the first experiment, each participant was provided with information regarding only one of the three dimensions, following a 3 (dimension: morality, sociability, competence) \times 2 (trait level: high vs. low) between-groups design. As such, the fictitious ethnic group was presented as either high or low in morality (i.e., honest, sincere, trustworthy), sociability (i.e., friendly, warm, likeable), or competence (i.e., intelligent, competent, skillful). Traits were carefully selected to be equal in evaluative extremity. Supporting the primacy of morality, results showed that participants reported a more positive impression when the group was described as highly moral rather than highly sociable or competent. Similarly, participants liked the group less when it was described as lacking morality rather than lacking sociability or competence. In other words, the study revealed that morality information was weighted more heavily in the formation of a global evaluative judgment of a hypothetical outgroup than was competence or sociability information.

In a second study, we slightly changed the experimental design in order to explore the conjoint effects of different informational dimensions in predicting the first impression of an outgroup target. Thus, each participant was exposed to information about the sociability, competence, and morality of the outgroup target, following a 2 (morality: high vs. low) \times 2 (sociability: high vs. low) \times 2 (competence: high vs. low) between-groups design. The results confirmed the findings of the first study by revealing a strong main effect of the morality factor: Participants rated the group more favorably when it was described as highly moral rather than lacking morality. Although we also found that the group was liked more when described as highly competent or highly sociable compared to when it was described as incompetent or lacking sociability, the effect size was much larger

for morality ($\eta_p^2=0.48$) than for competence ($\eta_p^2=0.15$) or sociability ($\eta_p^2=0.11$). Thus, the findings confirmed the primacy of moral content in shaping first impressions.

In the third and last study, we tested the socio-functional view of morality in first impressions of groups. Specifically, we empirically tested the idea that morality predicts impressions because it indicates whether social targets are threatening or beneficial. We did so by testing the mediating mechanism driving the effect of morality in outgroup perception. The study employed the same design as the second study described above. However, after the description of the group, we asked participants to report the extent to which the group was dangerous and posed a threat to Italian citizens (i.e., “The Ortandesi pose a threat to Italian citizens”; “The Ortandesi pose a threat to Italian values and beliefs”; “The Ortandesi are dangerous for the stability of Italian economic system”; “The Ortandesi threaten the Italian culture,” Brambilla et al., 2012, p. 158). The results of this study showed that the primacy of morality in predicting outgroup first impressions was mediated by the perception of threat. As such, when an outgroup was presented as immoral, it was disliked because it was seen as highly threatening (see Fig. 6).



$$z = -2.84, p = .004$$

Fig. 6 Perceived threat mediates the relationship between perceived outgroup (im) morality and the global impression of that outgroup. Adapted from Brambilla, M., Sacchi, S., Rusconi, P., Cherubini, P., & Yzerbyt, V. Y. (2012). You want to give a good impression? Be honest! Moral traits dominate group impression formation. *British Journal of Social Psychology*, 51, 149–166, Study 3.

Inspired by these findings, in a subsequent set of studies we further explored the relationship between outgroup impressions and the experience of threat by considering a real outgroup (Brambilla, Sacchi, Pagliaro, & Ellemers, 2013). Indeed, the employment of a fictitious group helped us to impose specific characteristics on the group, thus increasing our control over potential confounding factors such as participants' preconceptions of existing groups (Kunda & Spencer, 2003). However, such an approach may undermine the external validity of the findings preventing us from drawing clear conclusions on how people evaluate real outgroups. Across a new set of three experiments, we asked young Italian adults to rate either an Indian male target (i.e., outgroup member) or an Italian male target (i.e., ingroup member) differently described in terms of morality (e.g., honesty and trustworthiness), sociability (e.g., friendliness and likeability), and competence (e.g., intelligence and skillfulness). As in our early work, traits were carefully selected to be equal in evaluative extremity. The three studies lent consistent support for the primacy of morality in shaping outgroup evaluations. Indeed, the Indian target was liked when described as moral and disliked when described as lacking morality. By contrast, differential perceptions of the perceived competence and sociability of the target had no significant effects on the general evaluation of the outgroup target. Confirming our prior conclusions using hypothetical scenarios, we found that when an outgroup target was presented as immoral, he was disliked because he was seen as highly threatening. Moreover, going beyond a general perception of threat, we found that the immoral outgroup target was seen as posing a real and a concrete danger to the ingroup's survival possibilities and as representing a threat to the group's safety (i.e., "The target represents a danger to physical safety of Italians"; "The target poses a threat to public order," "The target is physically dangerous," Brambilla, Sacchi, et al., 2013, p. 814). Our findings further showed that morality is key in shaping not only outgroup evaluations but also ingroup impressions even if safety threat did not have a decisive role in this case (for a more elaborated discussion, see Section 4.2.2). In other words, these findings empirically supported the general idea that morality is fundamentally important in social judgment because it prefigures the essential judgment of whether another party's intentions are beneficial or harmful. Interestingly, in contrast with the research evidence on person perception previously reported (Landy et al., 2016; Wojciszke, Bazinska, et al., 1998), none of our studies on group impression found that competence and sociability functioned as an amplifier of a target's (im)morality. This discrepancy might be due to the different

methodological approaches, but it may also suggest interesting nuances differentiating interpersonal and group perception, while nevertheless revealing the dominance of moral categories in shaping both processes.

Building on this evidence, we further tested the relationship between ascribed outgroup morality and prejudice reduction. Thus, we explored whether interpersonal interaction with outgroups mostly promotes positive intergroup relations when it leads to a view of the outgroup as moral. In line with this reasoning, we found that contact with immigrants increased the degree to which Italian adults were willing to support political action against anti-immigrant discrimination (e.g., signing a petition; attending a rally) mainly because contact increased the degree to which Italians believed immigrants to be moral (i.e., honest, trustworthy). Although contact also increased the perceived sociability and competence of immigrants, these perceptions did not promote political action on behalf of immigrants as much as did perceptions of immigrant's morality (Brambilla, Hewstone, & Colucci, 2013). Increasing the ecological validity of these findings, more recently we have shown the relevance of morality in promoting more positive intergroup relations by investigating a sample of young immigrants (Vezzali, Di Bernardo, Birtel, Stathi, & Brambilla, 2020). Indeed, we found that contact with Italians increased the degree to which adolescent immigrants living in Italy were willing to interact with Italians, because contact increased the degree to which young immigrants believed the host country's citizens to be moral.

Overall, our data suggest that perceived morality has a primary role in the impressions that people form of outgroups. Indeed, morality is central to stereotypes, prejudice, and to the quality of intergroup relations across studies in which morality has both been measured as a subjective perception (Brambilla, Hewstone, et al., 2013; Vezzali et al., 2020; see also Vezzali, Brambilla, Giovannini, & Paolo Colucci, 2017) as well as experimentally manipulated (Brambilla, Sacchi, et al., 2013; Brambilla et al., 2012). The mediational role of perceived threat, particularly with regards to safety concerns (Brambilla, Sacchi, et al., 2013), is in keeping with a socio-functional view, whereby the primacy of morality in outgroup first impressions occurs because morality helps define whether an outgroup will be dangerous or beneficial.

Even if the work we have reviewed so far suggests that outgroup immoral conduct has a negative impact on outgroup evaluation, we recently showed that outgroup immorality can also positively affect self-evaluation (Sacchi, Brambilla, & Graupmann, 2021). According to Social Identity

Theory (Abrams & Hogg, 1990; Tajfel & Turner, 1979), people seek to maintain a positive personal and social identity through social comparison mechanisms. In this vein, witnessing wrongdoing may elicit a sense of threat, but also a sense of doing comparatively well oneself, especially when observers do not share group membership with the transgressor. Indeed, downward social comparison (Suls & Wheeler, 2013; Wills, 1981) with an immoral outgroup is likely to reduce the sense of threat to the ingroup and to personal moral identity (Minson & Monin, 2012; Monin, 2007) and enhance the perception of moral superiority (Epley & Dunning, 2000).

Across two studies, we revealed evidence for this nuanced process (Sacchi et al., 2021). The first study considered the current Italian political context; thus, participants were presented with a fictitious newspaper article describing a serious case of corruption (immoral behavior) or a virtuous action (i.e., thwarting a corruption system; moral behavior). The politician performing the behavior was presented as a representative of the major left-wing or right-wing Italian parties, thus being an ingroup or an outgroup member depending on the participant's political orientation. Next, participants were asked to indicate their current self-perceptions (e.g., "I feel good about myself," "I feel powerful"; Williams, Cheung, & Choi, 2000). Results showed a significant interaction between the type of behavior (moral vs. immoral) and the agent's group (ingroup vs. outgroup) on self-view. More specifically, participants' self-view was higher when they were presented with an immoral behavior performed by an outgroup member than an ingroup member. Moreover, this effect was enhanced by participants' level of identification with their ingroup: The stronger the identification with their own political group, the more positive their self-view in the face of an immoral outgroup behavior. We replicated this pattern of results in a second study in which we considered national groups. We also tested whether the reported effect is specific to information about morality or more generally related to valence. Thus, Italian participants were exposed to a scenario describing a behavior performed by a German male (outgroup member), following a 2 (dimension: morality vs. competence) \times 2 (behavior valence: positive vs. negative) experimental design. In line with Study 1, for highly ingroup identified participants, immoral outgroup behavior led to a more positive self-view than moral outgroup behavior. For those who were not highly identified with the ingroup, the immoral outgroup behavior did not influence their self-view. Importantly, in the competence conditions, the behavior of the outgroup member (competent vs. incompetent) did not affect participants' self-views at any level of ingroup identification.

Thus, these latter findings reveal that people might experience a sense of satisfaction when presented with an outgroup member's failure. Importantly, this self-view enhancement is not due to a generic effect of outgroup negative behavior but to a specific effect of wrongdoing in the moral domain. Thus, when we shift the perspective from how outgroup moral behavior affects attitudes toward that group to how it influences self-perception, we obtained positive rather than negative effects. Overall, these findings confirmed that outgroup immorality is key in shaping social judgment: Immoral outgroup members are disliked and kept at a distance, and their immorality also serves to protect a positive self-view.

4.2.2 Ingroup perception

Recent work has further shown that morality plays a distinctive role in shaping impressions about ingroup members (Ellemers, Pagliaro, & Barreto, 2013). In an early work, Leach et al. (2007) showed that people consider morality as the most important quality for feeling good about one's ingroup. In a similar vein, by manipulating morality, sociability, and competence qualities, Leach et al. (2007) showed that perceived ingroup morality was the strongest predictor of pride in the group. In line with these findings, it has been shown that morality-based norms are a key guideline for individual decision making within groups (Ellemers, Pagliaro, Barreto, & Leach, 2008). Indeed, when adhering to morality-related norms, people anticipate receiving ingroup respect (Pagliaro, Ellemers, & Barreto, 2011), indicating a specific concern for morality information when considering one's social identity and centrality within the group to which one belongs.

Inspired by these studies, our work on outgroup perception described in Section 4.2.1 also considered an ingroup member as one of the targets of evaluation (Brambilla, Sacchi, et al., 2013). Across the three studies, we found that the ingroup target elicited more positive impressions when described as moral and was disliked when lacking morality. Moreover, Studies 2 and 3 showed that differential perceptions of the perceived competence and sociability of the target had no significant effects on the general evaluation of the target. In line with prior findings showing that morality and threat are inherently linked, we found that ingroup morality had a primary role in predicting ingroup impressions because immorality threatens the ingroup's self-image as shown by the mediation of perceived group image threat (i.e., "The target is a threat to: Italian's image; Italian's reputation. The target makes me feel embarrassed"; Brambilla, Sacchi, et al., 2013, p. 814).

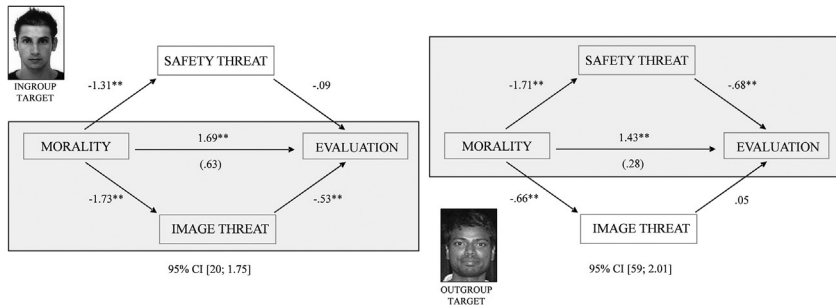


Fig. 7 Group image threat (left panel) and group safety threat (right panel) mediate the relationship between perceived (im)morality of an ingroup and an outgroup member, respectively, and evaluations toward them. *Adapted from Brambilla, M., Sacchi, S., Pagliaro, S., & Ellemers, N. (2013). Morality and intergroup relations: Threats to safety and group image predict the desire to interact with outgroup and ingroup members. Journal of Experimental Social Psychology, 49, 811–821, Study 3.*

Thus, when the ingroup member was seen as highly immoral, he threatened the stability and the integrity of the group. This threat was the basis for disliking the immoral ingroup member (see Fig. 7).

Moreover, we found that the primacy of morality in shaping ingroup evaluations is not influenced by the level of identification with the ingroup. In our studies, low and high identifiers felt equally threatened by the presence of an immoral ingroup member, and equally disliked the target due to the threat this individual implied for the image of the group. This is in line with prior work showing that high and low identifiers both tend to experience threat when the image of their group is at stake, especially when considering membership in real-world groups, as we did in our research (for an overview, see Ellemers, Spears, & Doosje, 2002).

In sum, our work shows that morality is equally important in shaping impressions of ingroup and outgroup members, and that morality is weighted more heavily than other information related to sociability and competence across different targets and contexts. Moreover, the perception of threat is the key underlying mechanism in the effects of ingroup's and outgroup's morality. However, different profiles of threat explain this primacy. Whereas threats to safety drive the response to (im)moral outgroups, threats to self-image drive the response to (im)moral ingroups. Although these threats are different, they represent complementary ways in which a group's morality establishes it as beneficial or harmful to the self. The image threat elicited by an immoral ingroup member might make salient intragroup fairness. Accordingly, scrutinizing the morality of ingroup members may be

functional for determining how to reward virtue and punish selfishness (De Waal, 1996; Haidt, 2007; Leach et al., 2007; see also Ellemers & Van den Bos, 2012). In contrast, the security threat posed by an immoral outgroup member makes safety and protection from harm especially salient (see Haidt, 2007). An immoral outgroup member is potentially harmful for both the individual's and the ingroup's survival (see Riek, Mania, & Gaertner, 2006). Thus, monitoring the outgroup's morality may be functional for reducing intergroup threat and defending the ingroup.

4.2.3 Perception of general social groups

Moving beyond a specific focus on the perception of ingroups and outgroups, in other work we have examined the contributions that morality, sociability, and competence make to the perception of social categories more broadly. Past work on societal stereotypes has considered group stereotypes through the lens of a two-dimensional model (for a review, see Cuddy et al., 2008) but we reasoned that the separation of morality and sociability would prove fruitful. Our focus was particularly on how the dimensions of morality, sociability, and competence, would predict affective reactions. Thus, in unpublished research, we asked American participants to report their emotional reactions toward 90 different social groups and professions as well as to report their perceptions of these groups' morality, sociability, and competence (Landy, Piazza, & Goodwin, 2020). We assessed 29 different emotional reactions and we assessed trait perceptions using 15 trait terms, five for each dimension. To elicit these perceptions, we relied on a previous method used by stereotype content researchers, which is to ask participants to report how they think each group is perceived by American society. That is, to examine trait characteristics, we asked, "As viewed by American society, how (trait adjective) are members of this group" and to examine emotional reactions we asked "To what extent does this group make the typical member of American society feel (emotion)." This indirect method has been argued to alleviate social desirability concerns that might otherwise distort participants' responses (Fiske et al., 2002). An additional important aspect of this study was the assessment of a much wider range of social groups and professions (90 in total) than has been used in past stereotype content research.

The separation between morality and sociability indeed proved fruitful. First, 78 out of the 90 groups were rated differently on these two dimensions, further attesting to their separability. Examples of low morality, high sociability groups included salespeople, politicians, taxi-drivers, and strippers. Examples of high morality, low sociability groups included judges,

soldiers, librarians, and Asians. The inclusion of Asians within this category is notable, because this group had previously been categorized as high competence–low warmth (Fiske et al., 2002). However, the separation of morality and sociability reveals that Asians were in fact perceived as low only in sociability, and much higher in morality (see also the examples provided in Section 2).

A second contribution of this separation was to show that morality and sociability predict emotional reactions in distinct ways. Factor analyses of our emotion terms revealed four distinct factors: antipathy, admiration, sympathy, and envy. In joint regression analyses using groups as the item of analysis, and entering morality, sociability, competence, as well as their two- and three-way interactions, only morality significantly predicted all four of these emotional reactions; it positively predicted admiration and sympathy, and negatively predicted antipathy and envy. The size of the morality effect was larger in all cases than the sociability effect. Morality also had a larger effect than did competence in predicting antipathy and admiration, while competence had a stronger effect in predicting sympathy (low competence predicted sympathy) and envy (high competence predicted envy).

Third, a particularly notable finding was that morality had opposite predictive effects than sociability in predicting envy. Whereas greater sociability predicted greater envy, greater morality predicted less envy. This result is particularly hard to account for on the view that morality and sociability are part of the same superordinate prosocial dimension, as argued elsewhere (Abele et al., 2021; Koch et al., 2021).

In sum, this work on the perception of social groups and categories underscores two broad themes of the present analysis. Morality is once again demonstrated to be central to people's reactions to social groups. Here we see it plays a particularly important role in predicting affective reactions. We also again see evidence that morality and sociability function in highly distinct ways—in particular, we find some evidence for their having opposite signs in predicting emotional reactions. These findings strongly point to the utility of separating morality and sociability when theorizing about the perception of social groups.



5. Changing our mind: Morality and impression updating

The centrality of morality is not confined to the perception of social groups and first impressions: Our work shows that morality has a leading role even when individuals revise their first impressions of a social target over

time. Social interactions require a continuous and flexible updating of our initial impressions (Ferguson, Mann, Cone, & Shen, 2019; Gawronski & Bodenhausen, 2006; Mende-Siedlecki, Cai, & Todorov, 2013; Rydell & McConnell, 2006; Rydell, McConnell, Strain, Claypool, & Hugenberg, 2007). Indeed, other individuals are an endless source of fluctuating social information. As a consequence, we often change our mind about someone and feel that our first impression about that person is incorrect and that a different impression is warranted instead.

A growing body of research has addressed the processes implied in impression change (Brannon & Gawronski, 2017; Cone & Ferguson, 2015; Mann & Ferguson, 2015, 2017; Reeder & Covert, 1986; Rydell & McConnell, 2006; Wyer, 2010; see also Gawronski & Bodenhausen, 2006). This research reveals that explicit impressions change rapidly after being exposed to a small amount of counter-attitudinal information. In sharp contrast, implicit impressions change only after exposure to large amounts of counter-attitudinal information (Gregg, Seibt, & Banaji, 2006; Rydell et al., 2007). However, it has also been shown that implicit and explicit impressions change rapidly when the counter-attitudinal information is subjectively assessed as diagnostic and prompts a reinterpretation of prior learning (for reviews, see Cone, Mann, & Ferguson, 2017; Ferguson et al., 2019). Thus, an effective way to change first impressions about an individual is via diagnostic information. For instance, Cone and Ferguson (2015) asked participants to form an impression of a target individual (i.e., Bob) who was described with a large amount of positive information. Participants were then exposed to a single new behavior, which was either neutral or extremely negative (e.g., “Bob was recently convicted of molesting children”). This latter behavior led to a complete reversal of the explicit and implicit evaluations of Bob, as the extreme information was interpreted as a diagnostic in revealing Bob’s character. Moreover, such a revision emerged mainly when the target person was personally responsible for the counter-attitudinal behavior rather than merely incidentally associated with a negative act. In other words, even though recent work has shown that extremity and diagnosticity are two distinct constructs (for a discussion, Rusconi et al., 2020), extreme negative information tends to be interpreted as highly diagnostic and promotes impression change.

Research has further shown that the revision of first impressions occurs more easily when the additional information dramatically reverses the meaning of the previous acts performed by the target person and offers a

reinterpretation of what was previously learned (Mann & Ferguson, 2015; Wyer, 2010). For instance, in a series of studies, Mann and Ferguson (2015) showed that when participants read about a man who broke into and damaged his neighbor's home, the ensuing negative deliberative and implicit impressions were reversed by the discovery that he was actually rescuing children from a fire.

Although all this evidence helps to elucidate the factors promoting impression change, hardly any experimental work has investigated whether specific content characteristics ascribed to a target person may enhance or diminish impression updating. Several studies have shown that moral content promotes impression change (Mende-Siedlecki, Baron, et al., 2013; Mende-Siedlecki & Todorov, 2016; Reeder & Coovert, 1986). For instance, in a classic experiment Reeder and Coovert (1986) showed that immoral behavior conflicting with an already established impression promotes impression change. Mende-Siedlecki and Todorov (2016) addressed the neural basis of impression updating based on moral information and revealed the key role of the left ventrolateral prefrontal cortex. However, these studies did not systematically test whether moral information is more relevant than nonmoral information (such as sociability and competence) in promoting the revision of first impressions.

In a recent line of work, we have addressed this issue by testing whether impression updating is influenced by the specific trait characteristics of our interaction partners and whether trait information that refers to morality has a primary role in this process (Brambilla, Carraro, Castelli, & Sacchi, 2019). We asked participants to form an initial impression about a target person based on either sociability, morality, or competence information. Then, they were presented with a new piece of information about the same target person and asked again to express their own evaluation. In Experiment 1 we manipulated morality and sociability information employing an all within-subject design. Participants were exposed to 72 trials. On each trial, participants were presented with the picture of a male target accompanied by a short sentence describing his behavior (e.g., "*He has lied to his parents*") and were further asked to report their initial impression of the target by using a scale that ranged from 1 (*extremely negative*) to 7 (*extremely positive*). This initial behavior varied in terms of its trait dimension (morality vs. sociability) and its valence (positive vs. negative). At time 2, participants were presented with additional information about the impression target's behavior (e.g., "*He has been friendly with a colleague*"). This second behavior varied for

dimension (morality vs. sociability), whereas its valence was always inconsistent with the valence of the first behavior. Finally, participants completed a Time 2 evaluation measure, using the same measure employed at Time 1.

We first analyzed participants' impressions of the person after the exposure to the first behavior (T1). Results confirmed prior work by showing that morality is more decisive than sociability in determining the initial impression about an individual person (Brambilla & Leach, 2014; Goodwin, 2015). Indeed, positive moral behaviors predicted more positive impressions than positive sociability behaviors. Moreover, negative moral behaviors elicited more negative impressions than negative sociability behaviors. Going beyond first impressions, we computed an index of impression updating by subtracting the impression score that was reported after exposure to the first behavior (T1) from the impression score that was reported after the second behavior (T2). Thus, the greater the index—either in the positive or the negative direction—the greater was the impression change after being exposed to the new piece of information. Results showed that morality drives impression updating. Indeed, we found a greater impression change when moral information (vs. sociability information) was added to what was previously learned about a target person. Specifically, impressions more strongly improved when positive moral (vs. sociability) qualities were added to previous negative qualities that described an unknown other person. By contrast, impressions more strongly worsened when negative moral (vs. sociability) qualities were added to previous positive qualities that described a target person.

Building on these findings, we conducted a second study in which we manipulated morality and competence behaviors following the same design of Experiment 1. The results confirmed the insights of Experiment 1, suggesting that morality—and especially immorality—has a leading role in driving first impressions. We found that positive moral behaviors led to similar first impressions as did competent behaviors. However, immoral behaviors led to more negative impressions than did incompetent behaviors. On impression updating, we found that participants displayed a greater impression change when moral information (vs. competence information) was added to what was previously learned about a target person. Specifically, impressions more strongly improved when positive moral (vs. competence) qualities were added to previous negative qualities that described an unknown other person. By contrast, impressions more strongly worsened when negative moral (vs. competence) qualities were added to previous positive qualities that described a target person (see Fig. 8).

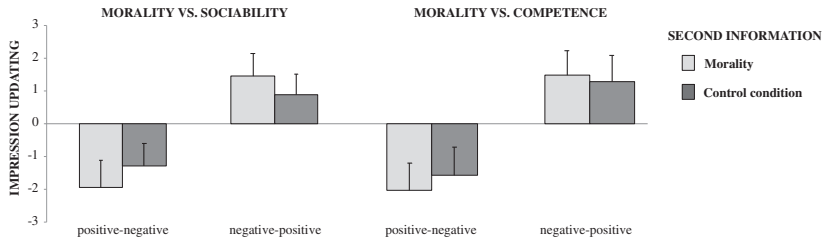


Fig. 8 Additional information related to the (im)morality of a target person leads to greater impression updating than information related to sociability (left panel; Exp. 1) and competence (right panel; Exp. 2). Error bars represent standard errors of the means. Adapted from Brambilla, M., Carraro, L., Castelli, L., & Sacchi, S. (2019). *Changing impressions: Moral character dominates impression updating*. *Journal of Experimental Social Psychology*, 82, 64–73.

In the last experiment, we explored the mechanism that drives the primary role of morality in modifying first impressions by employing a fully crossed between-subjects design. Participants were exposed to a picture of a male target (named Fabio) accompanied by a short sentence that described his behavior (e.g., “*Fabio did not give back the excess change he received at the supermarket*”). This first behavior varied for dimension (morality vs. competence) and valence (positive vs. negative). At this stage, participants were asked to report their first impression. At time 2, participants were exposed to additional information about the target’s behavior (e.g., “*Fabio has made a patent*”). The dimension of this second behavior varied (morality vs. competence), and its valence was always inconsistent with the valence of the first behavior. Next, in light of this new piece of information, participants completed a Time 2 evaluation measure, using the same measure employed at Time 1. We also tested two potential mediating mechanisms. We first tested whether morality drives impression updating because moral behaviors are perceived as less frequent than other behaviors. Indeed, a great deal of work has shown that less frequent behaviors play an especially powerful role in impression development (Mende-Siedlecki, Baron, et al., 2013; Rothbart & Park, 1986). In other words, these studies suggest that diagnosticity is an emergent property of the perceived frequency of a given behavior or trait, such that less frequent behaviors are extremely diagnostic (for a discussion, see Rusconi et al., 2020). To test this possibility, we asked participants to indicate the extent to which the additional behavior they were exposed to was frequent (i.e., *How much do you think the described behavior is widespread among the general population?*, *How much do you think the described behavior is rare?*, *How much do you think the described behavior is*

frequent?, *How likely are you to witness a similar behavior in everyday life?*). As an alternative possibility, we tested whether morality drives impression updating because moral behaviors are perceived as more functional in order to establish whether a target person is fundamentally good or bad (Brambilla & Leach, 2014). Thus, we tested whether moral information is more diagnostic of a person's intentions. To this end, we further asked participants to indicate how much the additional behavior was informative of the target's intentions (i.e., *How much is this behavior useful to determine Fabio's intentions?*; *How much is this behavior useful to determine Fabio's purposes?*).

Results confirmed prior insights on first impressions and impression updating. Indeed, we found that morality—and especially immorality—has a leading role in driving first impressions. Positive moral behaviors and positive competence behaviors equally affected first impressions. By contrast, immoral behaviors led to more negative impressions than incompetent behaviors. With regard to updating, we found that participants more strongly revised their first impressions when moral information was added to what was previously learned about a target person. Thus, when the second and inconsistent piece of information was positive, impressions improved to a greater extent when the information referred to morality rather than to competence. Conversely, when the second and inconsistent piece of information was negative, the impressions worsened more in the morality condition than in the competence condition. In terms of mediating mechanisms, the results showed that the leading role of morality in promoting impression change was driven by the perception that moral qualities are more informative of the intentions of social targets than competence. By contrast, the perceived frequency of the behavior did not influence impression change. This finding is consistent with the general idea detailed throughout this chapter that morality is fundamentally important in impression development because it is closely linked to the essential judgment of whether another party's intentions are beneficial or harmful. By considering that morality is key in determining the intentions of our interaction partners, it makes sense that moral behaviors are more salient when we revise our initial evaluations. Indeed, (im)moral behaviors are more powerful in changing impressions, because they are more indicative of the true character of the unknown other.

In selecting morality, sociability, and competence behaviors (12 in Experiment 1 and Experiment 2, 24 in Experiment 3), we carefully balanced the behaviors on evaluative extremity, thus removing evaluative extremity

as a potential confounding explanation for the driving role of morality in impression updating (see [Cone & Ferguson, 2015](#)). Moreover, although Experiment 1 showed that moral and immoral behaviors predicted more extreme impressions at T1 than sociable and unsociable behaviors, Experiment 2 and Experiment 3 showed that immoral behaviors predicted more extreme impressions than incompetent behaviors at T1. By contrast, positive moral and competence information did not predict different impressions at T1. Given that Experiments 2 and 3 revealed that impressions changed more strongly when both positive and negative moral information was added at T2, our data further rule out that the effects on updating are due to the fact that moral information is more extreme to begin with.

Taken together, the reviewed findings on impression updating reveal that not all person characteristics are alike; morality has a distinctive and especially powerful role in driving the updating process. Although future research should address the issue of how stereotypes could influence the updating of first impressions when it comes to social groups, these findings at the interpersonal level already extend and complement prior research by showing that counter-attitudinal behaviors performed by social targets are especially prone to prompt a revision of first impressions when such behaviors have moral content. In other words, moral content is considered as a particularly diagnostic cue for the refinement of interpersonal impressions over time.



6. Beyond impressions: Morality and social interactions

First impressions and their development over time guide our behaviors directed to the social targets with which we interact. As such, although impression development and social behaviors are distinct sets of psychological structures and processes, they are interdependent (e.g., [Dijksterhuis, Aarts, Bargh, & Van Knippenberg, 2000](#); [Dijksterhuis, Spears, & Lépinasse, 2001](#)). Because detecting appetitive and aversive objects in the environment is critical for our survival and adaptation, our evaluative processes are devoted to the discrimination of stimuli as pleasant or unpleasant, threatening or nurturing, and the organization of subsequent behaviors to promote the appropriate approach or avoidance responses ([Cacioppo & Berntson, 1994, 1999](#)). In particular, like other social animals that are dependent on one another, human beings' evaluative systems—and their consequent behavioral patterns—are largely regulated by the social environment ([Kenrick & Shiota, 2008](#)). According to this perspective, the main aim of impression

development would be to locate other people on the approach–avoidance dimension and to promote cooperation with beneficial individuals and defense from menacing others (Wojciszke, Bazinska, et al., 1998). For this reason, individuals tend to form rapid—and often inaccurate—impressions of others to determine as quickly as possible if they are potential friends to approach or foes to avoid. Indeed, previous work has shown that people respond differently to ingroup and outgroup members such that approach-like movements are faster toward ingroup members, whereas automatic avoidance is more likely for outgroup members (Miller, Zielaskowski, Maner, & Plant, 2012; Paladino & Castelli, 2008).

As analyzed in depth in this chapter, morality has proved to be more relevant than either competence or sociability in defining whether someone represents an opportunity or a menace. Owing to this relation with threat, morality-related cues strongly influence person and group member perception (Brambilla & Leach, 2014; Brambilla, Sacchi, et al., 2013; Brambilla et al., 2012). For the same reasons, the primacy of morality seems likely to emerge at the behavioral level as well. In line with this hypothesis, prior work on face perception has underlined how trustworthiness judgments more directly indicate a face's positivity/negativity than do other comparable judgments, thus leading to automatic approach/avoidance responses (Todorov, 2008). In the same vein, Iachini, Pagliaro, and Ruggiero (2015) revealed that, in a virtual space, participants expanded the interpersonal space between the self and a virtual confederate when the confederate was described as immoral rather than moral.

Going beyond approach/avoidance responses, De Bruin and Van Lange (1999) revealed that, when compared to intelligence information, (im) morality information has more pronounced effects on global impressions of an interaction partner, and on expectations of the other's cooperation. Importantly, in that study, morality proved to be more relevant to behavior, leading participants to make more cooperative decisions in social dilemmas. As shown by the literature within the broad field of risk management, social cooperation is predicted by social trust, which in turn is influenced by perceived morality (Earle, Siegrist, & Gutscher, 2010). Furthermore, the association between morality and cooperative responses may be automatically activated. Because morality is strongly associated with cooperation (Liebrand, Jansen, Rijken, & Suhre, 1986), morality-related information might work as a *prime* likely to enhance cooperative behavior, depending on an individual's social value orientation (Smeesters, Warlop, Van Avermaet, Corneille, & Yzerbyt, 2003).

Extending this line of research on the behavioral consequences of perceived morality in social dilemmas, we investigated whether information about an individual's morality is the primary predictor of people's willingness to cooperate and help a social target, even in a situation that does not involve interdependence. We examined this prediction in an applied context, testing a sample of school teachers and employees of Italian public schools (Pagliaro, Brambilla, Sacchi, D'Angelo, & Ellemers, 2013).

Participants were asked to imagine a newcomer in their school and read a description of their traits. Depending on the experimental condition, the new colleague was described as high or low in either morality (i.e., *honest, sincere, and trustworthy*) or competence (i.e., *intelligent, competent, and skillful*). More specifically, we used a 2 (morality: high vs. low) \times 2 (competence: high vs. low) between-participants experimental design. The traits used to describe the social target were balanced in terms of favorability. After receiving information on the newcomer's traits, participants were asked to report their initial emotional response toward the target (i.e., *affection, hostility, hatred, suspicion*). Next, we explored to what extent participants were willing to support the new colleague by engaging in specific work-related activities (e.g., "*spend time with the new school manager to describe local education practices*") as well as social ones (e.g., "*spend time with the new school manager to show our city*"). The analyses showed a significant effect of both morality and competence on emotional responses: Participants indicated a more positive emotional response toward the new colleague in the high morality than in the low morality condition, and in the high competence than in the low competence condition. Importantly, effect size comparison ($Z = 1.77$, $p = 0.037$) showed that the morality effect ($\eta_p^2 = 0.35$) was stronger than the competence effect ($\eta_p^2 = 0.12$). Moreover, results revealed a significant influence of morality—but not of competence—on willingness to help the newcomer, which was mediated by emotional reactions. Thus, this study suggests that information about another person's morality not only dominates initial impressions of that person, but also determines people's behavioral inclinations and cooperative intentions toward them. Importantly, such a result arose in a real organizational context in which social perceivers might be expected to be more interested in gaining information about the targets' task competence than about their morality (e.g., Brambilla et al., 2011, Study 1).

Taken together, the studies presented so far support the idea that morality-related information exerts a greater influence on impressions and the behaviors that stem from those impressions than do other evaluative

dimensions. However, all these studies have considered only perceivers' explicit responses and behavioral intentions rather than actual behavior and nonverbal responses. To address this gap, recent research in our laboratory investigated whether moral character drives spontaneous interaction and nonverbal behavior. To test this possibility, we built on prior research showing that the tendency to coordinate one's movements with those observed in other people is pervasive in human interactions (Bernieri & Rosenthal, 1991). Thus, we spontaneously tend, on the one hand, to mimic gestures, postures, expressions and mannerisms of our co-actors (Chartrand & Bargh, 1999; Chartrand & Lakin, 2013), and on the other, to synchronize our movements with our interaction partners (Semin, 2007; Semin & Cacioppo, 2008). Prior studies on this topic have revealed that both behavioral mimicry and interpersonal synchrony foster a sense of social cohesion, feelings of affiliation, and cooperative and prosocial behavior (e.g., Duffy & Chartrand, 2017; Hove & Risen, 2009; Valdesolo, Ouyang, & DeSteno, 2010). Motor coordination influences the social relationship, but the reverse is also true: Some work has shown that individuals are likely to imitate and synchronize with friends, people they like, ingroup members and less likely to mimic and coordinate with unwelcome partners, dissimilar persons, and outgroup members (Miles, Griffiths, Richardson, & Macrae, 2010; Stel et al., 2010). Complementing such research evidence, we tested whether person characteristics influence interpersonal synchrony and whether morality has a leading role in this process as compared with sociability (Brambilla, Sacchi, Menegatti, & Moscatelli, 2016). The experiment required the presence in the lab of a participant and of a confederate. Before starting the task both the participant and the confederate were asked to present themselves by writing a short text describing a recent personal experience. Depending on the experimental condition, the confederate wrote an episode during which he proved to be honest, dishonest, friendly or unfriendly. Thus, we employed a 2 (dimension: morality vs. sociability) \times 2 (valence: negative vs. positive) between-participants design. Then, participants started the synchrony task during which the confederate acted as the model and the participant as the mimicker: The confederate performed a total of 16 neutral movements for around 3 min, while the participant was asked to imitate the model's acts simultaneously. After the imitation task, participants were asked to report their global impression of the partner and to evaluate themselves and the co-actor on several personality traits: The difference between the trait ratings attributed to the confederate and to the self was used as an index of perceived similarity with the target.

Three independent judges blinded to the experimental conditions analyzed the videos and evaluated all the movements for each participant on seven qualitative criteria grouped by time (the mimicker's and the model's movement started at the same time; ended at the same time; the mimicker and the model moved synchronically; they moved at similar speed) and form (the mimicker precisely imitated the model; the mimicker's movement was fluid; the mimicker's movement was awkward). The results showed a significant interaction between dimension and valence. Whereas participants' imitations of the unfriendly and the friendly partner were judged equally synchronic, the temporal synchrony with the dishonest partner was lower than the temporal synchrony with the honest partner and with the unfriendly one. To support the judges' evaluations, the recorded experimental sessions were further evaluated with the Observer XT software, to analyze the delay between the time the model started the movement and the time the mimicker started the imitation. Consistently, this additional analysis showed that participants were equally prompt to synchronize with the unfriendly and the friendly co-actor; however, they were less ready to synchronize with the dishonest partner than with the honest and the unfriendly one (see Fig. 9). Interestingly, the study found that individuals were less likely to coordinate their actions with those of a dishonest interaction partner because such an immoral co-actor was perceived as dissimilar from the self.

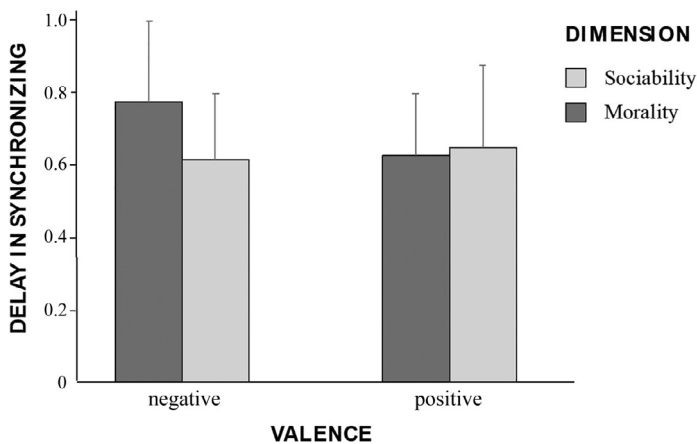


Fig. 9 Individuals are less prone to synchronize their movements with those of an immoral individual. Error bars represent standard errors of the means. *Adapted from Brambilla, M., Sacchi, S., Menegatti, M., & Moscatelli, S. (2016). Honesty and dishonesty don't move together: Trait content information influences behavioral synchrony. Journal of Nonverbal Behavior, 40, 171–186.*

With a study of this sort in which the confederate was not blind to the story he wrote, one might worry that the confederate biased the synchrony data. Two factors speak against this concern. First, although the confederate was not blind to which story he wrote, he was blind to the expected outcomes and hypotheses driving the study. Second, we conducted additional analyses to rule out a number of alternative explanations for our findings. Thus, we asked two new independent judges, blind to the experimental conditions, to watch the videos and to indicate the extent to which the confederate appeared hostile, rude, and happy (reverse-scored) during the synchrony task. We also asked the two independent judges to indicate the extent to which the confederate appeared to be helping the participant in the synchrony task and the extent to which the confederate had an avoidant attitude during the synchrony task. These new analyses revealed that the confederate performed the synchrony task in the same way in the various experimental conditions, ruling thus out the possibility that the reported findings were due to unexpected behavioral differences across conditions enacted by the confederate.

Encouraged by these results, we conducted a second set of studies investigating how morality, sociability, and competence impact spontaneous interpersonal mimicry (Menegatti, Moscatelli, Brambilla, & Sacchi, 2020). In a first study, we adopted a procedure similar to that described above (Brambilla et al., 2016). After writing a short paragraph on a recent experience (thus, introducing the experimental manipulation), the participant and the confederate were invited to discuss for 5 min their experience as university students. During this unstructured interaction, the trained confederate performed three specific movements (rubbing the arm, touching the face, and moving the head). To measure behavioral mimicry, two independent judges, blind to the experimental conditions, were instructed to watch the videos and to evaluate the extent to which participants spontaneously imitated the movements performed by the confederate. In line with the previous study on synchrony, results revealed that participants were less likely to mimic the confederate in the negative morality condition than in the negative sociability condition. Moreover, mimicry was higher in the positive compared to the negative morality condition, whereas there was no difference between the positive and negative sociability conditions. The analyses performed on the postural openness and the smoothness of the interaction as detected by two judges revealed the same pattern of results, signaling the participants' need to distance themselves from the immoral other.

In a further study, we aimed to replicate these findings comparing the effects of morality on behavioral mimicry with those of competence. We adopted the same procedure as above, but we changed the vignettes related to (un)friendly behaviors with text related to competence. Hence, we used a 2 (dimension: morality vs. competence) \times 2 (valence: negative vs. positive) between-participants design. We found that participants were less prone to spontaneously imitate the confederate when she described herself as immoral than incompetent. Moreover, mimicry was higher in the positive than the negative morality condition, whereas there was no difference between the positive and negative competence conditions. Therefore, in line with the *negativity effect* (e.g., Skowronski & Carlston, 1987, 1989) and some of the results reported throughout this chapter, our results clearly show that only negative morality information influences the automatic perception-behavior link (Chartrand & Bargh, 1999). Because behavioral coordination can be defined as a “natural social glue that binds and bonds humans together” (Chartrand, Maddux, & Lakin, 2005, p. 357), undermining synchrony and mimicry with an immoral interactional partner could have important adaptive functions in terms of preventing affiliation with a potentially untrustworthy partner.

Overall, this set of studies consistently showed that, when compared to sociability- and competence-related cues, information about a target’s moral character has a stronger impact not only on social perception but also on behavioral responses. These reactions are related to both deliberate cooperative intentions and automatic non-verbal behavior. Such effects on behaviors might have relevant relational consequences. As noted before, the tendency to coordinate with one’s interaction partner is likely to promote affiliation, social closeness, and cooperation (Duffy & Chartrand, 2017). Thus, the detrimental effect of perceived immorality on behavioral mimicry and interpersonal synchrony could lead to a downward (but ultimately self-protective) spiral and subsequent social distancing. Moreover, on the side of deliberative responses, the influence of morality on the promptness to establish supportive and cooperative relations with others might have clear practical implications for our social life, fostering social inclusion, cohesion and prosocial responses at the interpersonal and group level (Pagliaro et al., 2013).

Interestingly, these behavioral consequences can also have rebound effects on the impression-formation process. For instance, a large number of studies on self-fulfilling prophecies (Merton, 1948) and behavioral confirmation (Snyder, 1992; Snyder & Swann, 1978), have noted that, when we

start from a particular hypothesis about our interaction partner, we change our behavior accordingly. Indeed, our attitudes are likely to generate, confirm and reify responses and actions in our co-actor that are congruent with our expectations. For this reason, a perceiver's expectations about a social target's morality might not only change the perceiver's attitudes and behaviors but they are also likely to modify the social target's behavioral response. In turn, this could prompt further consolidation and entrenchment of the initial hypothesis.



7. A new framework for understanding person and group perception: The moral primacy model (MPM) of impression development

Across the processes we have analyzed, we found consistent evidence that morality is central at each stage of impression development. This evidence informs a new framework for understanding person and group perceptions: The moral primacy model (MPM) of impression development. The model centers around three key assumptions: (i) morality, sociability, and competence are conceptually distinct characteristics and make unique contributions to impression development; (ii) morality has a primary role in guiding the impressions that we form and the evaluations that we make of other people, and this can be seen at various stages of impression development and their behavioral outcomes; (iii) morality dominates impression development because it is closely linked to the judgment of whether other social targets represent an opportunity or a threat (see Fig. 10).

As summarized in Table 1, the model relies on results showing the central role of the moral domain, which is characterized by a positive-negative asymmetry. In essence, immorality catalyzes the social perceiver's resources in reaction to "a single vice corrupting and perverting and bringing the moral downfall of an otherwise perfectly good person" (Rozin & Royzman, 2001, p. 299). We reviewed theoretical and empirical evidence that shows how, in line with a socio-functionalist account, the threat posed by an actor's immoral behaviors at both the interpersonal and intergroup levels motivates the social perceiver's focus on the moral dimension at various stages of impression development.

The need to avoid the negative consequences of immoral behaviors is at the basis of the social perceiver's "cynical" implicit assumptions that another person described with moral traits more frequently behaves in the opposite, immoral way compared to how inconsistently a person described as immoral

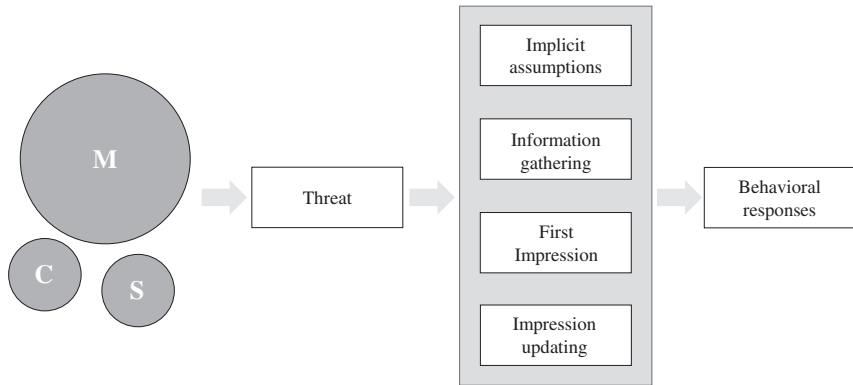


Fig. 10 The moral primacy model (MPM) of impression development: graphical representation.

would be expected to act (Rusconi et al., 2017). These implicit assumptions about people's behavioral repertoire can influence subsequent stages of impression development. For example, the same focus on questioning other people's morality can be seen at the information gathering level. Brambilla et al. (2011) showed that information about morality is preferentially selected over sociability information when people aim to form global impressions of others (Brambilla et al., 2011, Study 1). Not only information-selection, but also question-asking strategies are distinctively and primarily influenced by morality-related information. This has been shown by people's tendency to ask questions that anticipate an answer falsifying the presence of moral traits, such as honesty, in the target person (Brambilla et al., 2011, Study 2). This finding suggests that when collecting information about other people with the aim of forming an impression, people adopt a cautious, self-protective strategy that risks incurring errors of false alarm (not befriending a moral person) rather than errors of "missing" the immoral characteristics of a target person (e.g., befriending an immoral person).

Another central notion of the model is that once information is available to make judgments about another person or group, morality plays a primary and distinct role compared to other dimensions in first impressions. Indeed, research from our labs has shown the dominance of morality in person perception and in global impressions of social targets (Goodwin et al., 2014). Traits' morality relatedness plays a distinct and primary role in determining how desirable, controllable, and central to identity they are seen to be (Goodwin et al., 2014, Study 2). In addition, morality is dominant in the

Table 1 The key findings of the moral primacy model (MPM) of impression development. The model highlights the distinct and primary role of morality at the different stages of impression development and its influence on behaviors.

Impression development stage	Moral primacy and distinctiveness
Implicit assumptions	<ul style="list-style-type: none"> • The social perceiver is viewed as “cynical” (questioning a target person’s morality) • Suggested distinction between morality, sociability (extroversion-introversion), and competence
Information gathering	<ul style="list-style-type: none"> • Information-selection and question-asking strategies are distinctively and primarily driven by morality information as opposed to sociability and competence information • Self-protective strategy of the social perceiver who questions social targets’ morality in information gathering
First impressions (interpersonal level)	<ul style="list-style-type: none"> • Moral dominance in global impressions of other people • Morality dependence: morality taints the impressions of sociable and competent target persons • Moral traits provide the most reliable guide to whether another person’s deepest intentions are fundamentally good or bad
First impressions (group level)	<ul style="list-style-type: none"> • Morality trumps sociability and competence in driving ingroup and outgroup impressions • Morality is functional in determining whether social targets represent symbolic vs. safety threats in ingroup and outgroup members’ perception, respectively
Impression updating	<ul style="list-style-type: none"> • Morality is more informative than sociability and competence about social targets’ intentions • Morality induces greater revision of first impressions than sociability and competence
Behavioral responses	<ul style="list-style-type: none"> • Greater influence of morality than sociability and competence in predicting explicit and implicit (e.g., temporal synchrony and spontaneous mimicry) behaviors

formation of global impressions of other people, including real social targets, and in accounting for global impressions based on naturalistic materials, such as obituaries (Goodwin et al., 2014). Furthermore, our research has shown that morality determines the positivity and negativity of impressions of sociable and competent target persons (Landy et al., 2016).

At the group level, our research has not only shown the primacy of morality in impressions of both ingroup and outgroup members, but it has also cast light on the mechanisms underlying such a primary role. Concerns around the image of one's own group, that is, symbolic threat, explain the relationship between the perceived (im)morality of one's own group and reactions to the (im)moral ingroup. Conversely, safety threat, a type of realistic threat focused on concerns around security, explains the relationship between the perceived (im)morality of an unknown individual that does not belong to our group and reactions to that (im)moral target individual (Brambilla, Sacchi, et al., 2013).

Impression development also encompasses the dynamic acquisition of information about social targets over time. Our research on impression updating has provided evidence for the distinctiveness and diagnosticity of additional information pertaining to the moral domain in revising initial impressions (Brambilla et al., 2019). The greater revision of first impressions induced by morality-related information, as opposed to information related to the sociability and competence dimensions, is explained by the greater diagnosticity of morality in conveying information about the target person's intentions (Brambilla et al., 2019, Experiment 3). Taken together, these findings highlight a key tenet of the proposed model: Morality is critical to establishing whether social targets have harmful or beneficial intentions, and thus whether they can be friends or foes. By showing that morality and sociability make unique contributions to impression development, our work suggests the importance of jettisoning the warmth dimension and distinguishing between sociability and morality instead. Thus, the assumed dominance of warmth in impression formation revealed by prior works (Abele & Bruckmuller, 2011; Abele & Wojciszke, 2007, 2014; De Bruin & Van Lange, 2000; Fiske et al., 2007; Wojciszke & Abele, 2008; Wojciszke, Bazinska, et al., 1998; Ybarra et al., 2001) may more precisely be explained by the special importance of morality rather than sociability information. Indeed, morality drives impression development, because it indicates more strongly than sociability and competence the nature of a social target's intentions and whether those intentions are helpful or harmful.

The distinct and paramount role of morality at the different stages of impression development has consequences for social perceivers' interactions. For example, our research has shown that school teachers' and school employees' willingness to help a new school manager was predicted by morality-related but not competence-related information (Pagliaro et al., 2013). In a similar vein, morality exerted a greater influence on spontaneous behaviors signaling approach and social cohesion (Brambilla et al., 2016;

Menegatti et al., 2020). The dominance of morality has relevant direct consequences for social interactions, for example, by determining or preventing discrimination, but also more indirectly, in that it can channel subsequent interactions in a confirmatory fashion. Indeed, the target of behaviors that are driven by an initial hypothesis of (in)morality could react consistently with those behaviors, as research on behavioral confirmation might suggest (e.g., Snyder & Swann, 1978). In turn, this chain of behaviors and reactions could lead to further consolidation of the initial impression that began the cycle (see Fig. 1, Section 2).

7.1 Open questions and a trajectory for the field

The research evidence presented in this chapter raises a number of future research possibilities (see Table 2). An important direction for further research would be to broaden the notion of morality. Indeed, most of our studies supporting the MPM conceived morality mainly in terms of trustworthiness and honesty (although for relevant exceptions, see Goodwin et al., 2014). As a case in point, such an operationalization of morality is widespread in Western cultures (Haidt, Koller, & Dias, 1993). It has been suggested that among the different aspects of morality, trustworthiness is the most important in Western countries because it is the most necessary to inferential judgments of who is moral (for a review, see Leach et al., 2015). Moreover, trustworthiness and honesty are more generally and more strongly considered moral than are other relevant traits (Leach et al., 2015). However, morality might be conceived more broadly than our definition implies (Gray & Graham, 2019; Shweder, Much, Mahapatra, & Park, 1997). For instance, Moral Foundations Theory (see Graham et al., 2011; Haidt & Graham, 2007) suggests that morality encompasses aspects connected to harm, fairness, loyalty, authority, and purity. Thus, one direction that would be interesting to take in further research is to investigate how honesty and trustworthiness relate to the “foundations” of moral judgment. In a similar vein, it would be important to test whether all moral foundations are equally important in establishing a target person’s intentions and in predicting impressions. While it may seem plausible that traits and behaviors connected to harm and fairness, which belong to the ethics of autonomy (e.g., Shweder et al., 1997), could play the most important role in predicting impressions across targets and contexts (Gray & Graham, 2019), some other moral aspects could exert a unique role in some circumstances. For instance, moral purity is an especially relevant component of sexual stereotypes

Table 2 Open questions in the investigation of the primacy of morality in impression development and behavioral reactions.

State-of-the-art: some gaps	Challenges for the research agenda
➤ Narrow definition of morality mainly focused on trustworthiness and honesty	➤ Investigating: (i) The role of the different foundations of moral judgment (harm, fairness, loyalty, authority, and purity) compared to sociability and competence in impression development; (ii) The role of rule-based morality (deontology) vs. outcome-based morality (utilitarianism)
➤ Negative moral information weighed more than positive moral information at some stages (e.g., information gathering) but not others (e.g., impression updating)	➤ Exploring the factors that promote or suppress the <i>negativity effect</i> on morality during impression development
➤ Distinct processes characterize the impression development process	➤ Study the interaction between different stages: Investigating whether morality taints value and meaning of competence- and sociability-related cues across stages of impression development
➤ The analysis of the effects of morality on social interactions and behaviors are limited to the social perceiver's reactions	➤ Exploring behavioral confirmation effects and behavioral responses of a social target identified as (im)moral (vs. sociable or competent)
➤ Distinctiveness and primacy of morality over sociability and competence	➤ Focus on the constructs: Are sociability and morality two sub-dimensions of warmth?

(Brambilla & Butz, 2013; Herek, 2000; Madon, 1997). As such, gay men and lesbians are often stereotyped as violating moral purity and sanctity, as well as values about “appropriate” sexual behavior, thus representing a threat to traditional religious and family values. Given the centrality of moral purity in sexual stereotyping, it might follow that moral traits and behaviors connected to moral purity play a greater role than other moral aspects in shaping our impressions toward sexual minorities (see also Vezzali et al., 2017).

To broaden the notion of morality on which impression-development research has usually focused, it would also be important to take into account the distinction between deontology (or rule-based morality) and consequentialism (outcome-based morality). Whereas deontology is based on the “sense of duty” and assesses behaviors based on the application of rules that allow or forbid certain actions (Kant, 1959), consequentialist approaches aspire to “the greatest good for the greatest number” and evaluate behaviors based on their consequences (Bentham, 1988). For decades, a great deal of work on moral judgment and decision making has investigated deontological and consequentialist reasoning, their characteristics, determinants and consequences. Surprisingly, the lines of research on moral reasoning and on the social perception of morality have developed in a completely independent way, with few exceptions. Recently, however, it has been shown that agents who express deontological moral judgments are preferred as social partners and perceived as more trustworthy than agents who express consequentialist preferences (e.g., Everett, Faber, Savulescu, & Crockett, 2018; Everett, Pizarro, & Crockett, 2016; Sacco, Brown, Lustgraaf, & Hugenberg, 2017; for a review, see Crockett, Everett, Gill, & Siegel, 2021). Moreover, people are likely to infer social targets’ personality traits from their judgments about moral dilemmas. Specifically, individuals who make deontological judgments are perceived as warmer but less competent than individuals who make consequentialist judgments (Rom, Weiss, & Conway, 2017). Building on these findings, future studies could compare the social perception of agents who act according to moral rules (deontology) with that of targets who follow sociability- or competence-related norms. Such a comparison would allow scholars to test the hypothesis that deontological moral decision making is more likely to convey a perception of trustworthiness than decision making based on sociability and competence. Alternatively, the congruence between the rule and the target’s actual behavior, regardless of the content dimension, may elicit a positive overall impression of the agent. The social perceiver’s impressions from the actor’s rule-based behaviors could also be compared to those from outcome-based (consequentialist) behaviors in the morality, sociability, and competence domains.

Another area that deserves further investigation is the negative asymmetry in the morality domain. Past research has shown that negative moral information is taken to be especially diagnostic of a person’s moral character (Reeder & Brewer, 1979; Skowronski & Carlston, 1987; for a review, see

Rusconi et al., 2020). People hold a general expectation that only immoral people act immorally whereas both moral and immoral people may act morally, partly because moral behaviors are normative and are thus rewarded. As a consequence, negative moral information should be weighed more than other information in impression development as it should be perceived as diagnostic of the underlying moral nature of a social target. Such a valence asymmetry is evident in some of the studies we reviewed in this chapter. For instance, at the information-gathering stage people tend to ask questions that anticipate an answer falsifying the presence of moral traits (Brambilla et al., 2011). Moreover, once information is available, negative morality tends to exert a greater influence in shaping first impressions (Brambilla et al., 2019) and subsequent behavioral responses (Brambilla et al., 2016; Menegatti et al., 2020). However, in some circumstances the negativity asymmetry in the moral domain disappears. For instance, our work on impression updating reveals that both positive and negative moral information elicited impression change (Brambilla et al., 2019). The presence or absence of valence asymmetries represents an interesting nuance that deserves further consideration. It would be worthwhile to systematically investigate—perhaps by considering different measures—the factors that might promote or suppress the negativity effect on morality when studying impression development. One possibility is that the negativity effect of morality emerges only when negative moral information is extremely negative while such an effect disappears when moderate information is taken into account (Wojciszke, Brycz, & Borkenau, 1993). Indeed, we did not find evidence of such a negative asymmetry when examining moderate moral traits and behaviors in guiding implicit assumptions about a target person (see Section 3.1, Rusconi et al., 2017). Another possibility is that the negativity effect of morality might involve only specific aspects of impression development and not every aspect of this process. Evidence in line with the lack of a negativity effect in morality has come from the empirical investigation of implicit assumptions (Rusconi et al., 2017) and information integration (Wojciszke et al., 1993), while several studies have highlighted the greater role assigned to negative information about morality in overall impressions (e.g., Skowronski, 2002; Skowronski & Carlston, 1987, 1992). However, research on this topic has been prone to large variability in the terminology (e.g., the conceptualization of diagnosticity) and methods used (e.g., different measures of trait-behavior relations). This has produced some inconsistencies in the theoretical and empirical findings (for a review, see Rusconi

et al., 2020). Future research should address the moderators of the negativity in the morality domain in the attempt to reconcile these inconsistencies in the literature.

An additional line for future research would be to consider the interaction of multiple stages of impression development. Indeed, as detailed in the introduction, impression development requires multiple stages of processing. However, because of theoretical aims and methodological constraints, most studies on the key role of morality in predicting impressions have focused their attention on the discrete phases of impression development, overlooking their interaction. Due to this “atomistic” approach, a challenge for future studies would be to explore the interactive relationship between the phases of impression development.

An example of the utility of an integrative approach concerns the combination of new evidence in the impression updating process. As we outlined, morality dominates over sociability and competence during information gathering and impression updating, because morality behaviors are more informative of social targets’ intentions. This means that morality is more diagnostic regarding the threat-related dimension. Information that indicates high immorality can be highly informative, but it is also rare. For example, asking a person whom we consider immoral “Have you ever killed anyone?” could be substantially informative: A “yes” answer is likely to strongly support our immorality hypothesis and probably stop the search for additional evidence. However, because assassination is fortunately an exceptional behavior, the likelihood of receiving a “no” answer is much higher, and its informativeness lower, than the probability of receiving a “yes” answer. Thus, future studies should explore this trade-off between evidence diagnosticity and frequency during the testing of morality-related hypotheses. Our previous research on social perceivers’ expectations has shed light on people’s perception of the diagnosticity-frequency trade-off when asking questions (Rusconi et al., 2012). We have also investigated how social perceivers evaluate questions and their answers in order to form impressions of a target person as a function of the differential frequency and diagnosticity of the relevant behaviors (Sacchi et al., 2014). However, these previous studies did not investigate whether people are more affected by cue diagnosticity or frequency, or if they balance the two aspects, when encoding and organizing information related to morality (for a review of the debate on the frequency-diagnosticity trade-off, see Rusconi et al., 2020).

A second example of integrating the impression development phases concerns how people combine trait information to form an overall

impression of a person. As noted by [Asch \(1946\)](#), the impression of a social target results from an information integration process through which the first (or central) traits detected in an individual shape the interpretation of the subsequent characteristics. In a similar vein, [Wojciszke, Bazinska, et al. \(1998\)](#) and [Wojciszke, Dowhyluk, et al. \(1998\)](#) argued that the contribution of different dimensions to a global impression should be interactive rather than additive. For instance, in stark contrast with the prediction of the algebraic model ([Anderson, 1981](#)), an immoral and competent person would elicit a harsher judgment than an immoral and incompetent one since the former is more able to carry out malevolent intentions than the latter (see also [Landy et al., 2016](#)). Thus, in case of (in)competent (im)moral deeds, morality is likely to define the attitude direction, whereas competence regulates the strength. Extending this rationale, it is plausible not only that morality dominates over competence and sociability during impression development, but also that it is able to modify the value or the meaning of competence- and sociability-related cues. From this perspective, sociable and competent behaviors could acquire new meaning in the light of pre-existing moral traits. The results of [Landy et al. \(2016\)](#) provided one means of confirming this prediction in the context of people forming interpersonal impressions. Building on this evidence, future research could investigate other varieties of this morality contamination effect, perhaps by investigating different stages of hypothesis development, such as information search and impression updating.

A third example of the importance of an integrative approach to impression development pertains to the behavioral responses driven by a target's morality. More specifically, we have shown the consequences of cognitive/perceptual processes on social interaction: the perception of morality leads social perceivers to change their behaviors toward an interaction partner ([Brambilla et al., 2016](#); [Menegatti et al., 2020](#)) and their willingness to cooperate with him/her ([Pagliaro et al., 2013](#)). However, the process might be much more complex. Indeed, as revealed by robust strands of research, when a social perceiver holds a hypothesis about a target, the perceiver behaves toward the target as if that hypothesis were true. Such an anticipatory behavior toward another person causes the social target to engage in the expected behavior and to conform to the perceiver's opinion ([Chen & Bargh, 1997](#); [Darley & Gross, 1983](#); [Snyder, 1992](#)). Studying the degree of behavioral confirmation elicited by provisional hypotheses about morality, competence and sociability is an important avenue for future research.

Another important question concerns whether to conceptualize person and group perception as undergirded by two, three, or more dimensions and how the MPM of Impression Development we have introduced relates to existing models of social cognition. Whereas our review of past research has amply demonstrated that two-dimensional models have held sway in the literature (for a recent instance, see [Abele et al., 2021](#); for a revised two-dimensional model, see [Koch, Imhoff, Dotsch, Unkelbach, & Alves, 2016](#); [Koch et al., 2021](#)), there is also mounting evidence that sociability and morality make unique contributions to impression development. Based on this evidence, one possibility would be to consider morality as a particularly important sub-component of the warmth dimension, as has been proposed in some of our early works ([Brambilla & Leach, 2014](#)). This position would be consistent with the current perspective of two-dimensional theorists, who treat morality as a sub-component of warmth (see [Abele et al., 2021](#); [Koch et al., 2021](#)). A more radical possibility would be that morality is a third dimension of person and group perception and that a three (or more) dimensional model may be more accurate. Among the most pertinent pieces of evidence in favor of this perspective are the following: (i) Analyses of the impressions people form of real-world individuals show that morality, competence, and sociability each explain independent variance in impressions ([Goodwin et al., 2014](#)). The same is true when variance in the emotional responses to real-world social groups is accounted for ([Landy et al., 2016](#)). (ii) Factor analyses of trait lists that comprise morality, sociability, and competence traits show that three dimensions consistently emerge ([Brambilla, Hewstone, et al., 2013](#); [Brambilla et al., 2011](#)), with morality no more related to sociability than to competence (see [Landy et al., 2016](#)). (iii) Analyses of the functional role of morality, sociability, and competence in interpersonal impression formation suggest that, whereas morality is generally treated as unconditionally positive (that is, positive regardless of the other traits that a person possesses), both sociability and competence are treated as conditionally positive. In essence, they are “amplifiers” of a target person’s prevailing morality ([Landy et al., 2016](#)). Apart from once again demonstrating the central importance of morality, these results demonstrate a functional concordance between sociability and competence, and a functional separation from morality which is best accommodated by a three (or more) dimensional model. (iv) Analyses of emotional responses toward real social groups indicate not only that morality has a more powerful role than sociability in predicting such responses, but also that it sometimes predicts emotional responses opposite to those

predicted by sociability (e.g., in the case of envy; Landy et al., 2020; see also Brambilla & Riva, 2017). Each one of these streams of evidence is more consistent with a three (or more) dimensional model of impression formation, and each one poses an independent challenge to existing two-dimensional models. Nonetheless, we acknowledge that the conclusion that two-dimensional models are ripe to be overturned is still preliminary. Further evidence is needed before this conclusion can be drawn with the same high confidence as the conclusion that morality is dominant in impression development.



8. Concluding summary

Notwithstanding these open lines of inquiry, our review demonstrates that considerable progress has been made in identifying and sharpening the understanding of the impression development process. As we have reviewed, this process is multifaceted. It begins with the development of a working hypothesis about a social target, progresses next to the testing of that hypothesis, then to the formation of an initial impression about the target, the updating of that impression upon receipt of new information, and finally, to the enactment of relevant approach-avoidance behaviors. The evidence we have reviewed reveals a striking consistency in the importance of morality in driving these processes. Although it was by no means inevitable that one would have observed such uniformity, the accumulated evidence highlights the recurrent and dominant role of morality. Importantly, it does so for the development of impressions about individuals as well as social groups. In one sense, this level of consistency might seem surprising. Yet, in another sense, when one considers the critical functional role that morality plays in informing us of social targets' likely intentions toward us—whether they are likely to wish us well or ill, and most importantly, whether they are likely to do us harm or good—this level of evidentiary consistency makes sense. A coherent view thus emerges of morality as underwriting the many related facets of impression development.

References

- Abele, A. E., & Bruckmuller, S. (2011). The bigger one of the “big two”? Preferential processing of communal information. *Journal of Experimental Social Psychology, 47*, 935–948.
- Abele, A. E., Ellemers, N., Fiske, S. T., Koch, A., & Yzerbyt, V. (2021). Navigating the social world: Toward an integrated framework for evaluating self, individuals, and groups. *Psychological Review, 128*, 290–314.

- Abele, A. E., Hauke, N., Peters, K., Louvet, E., Szymkow, A., & Duan, Y. (2016). Facets of the fundamental content dimensions: Agency with competence and assertiveness—Communion with warmth and morality. *Frontiers in Psychology, 7*, 1810.
- Abele, A. E., & Wojciszke, B. (2007). Agency and communion from the perspective of self versus others. *Journal of Personality and Social Psychology, 93*, 751–763.
- Abele, A. E., & Wojciszke, B. (2014). Communal and agentic content in social cognition: A dual perspective model. *Advances in Experimental Social Psychology, 50*, 195–255.
- Abrams, D. E., & Hogg, M. A. (1990). *Social identity theory: Constructive and critical advances*. New York, NY: Springer-Verlag.
- Anderson, N. H. (1981). *Foundations of information integration theory. Vol. 578*. New York: Academic Press.
- Asch, S. (1946). Forming impressions of personality. *Journal of Abnormal and Social Psychology, 41*, 1230–1240.
- Bargh, J. A., Chen, M., & Burrows, L. (1996). Automaticity of social behavior: Direct effects of trait construct and stereotype activation on action. *Journal of Personality and Social Psychology, 71*, 230–244.
- Baumeister, R. F., Bratslavsky, E., Finkenauer, C., & Vohs, K. D. (2001). Bad is stronger than good. *Review of General Psychology, 5*, 323–370.
- Bentham, J. (1988). *An introduction to the principles of morals and legislation*. Buffalo: Prometheus Books.
- Bernieri, F. J., & Rosenthal, R. (1991). Interpersonal coordination: Behavior matching and interactional synchrony. In R. S. Feldman, & B. Rime (Eds.), *Fundamentals of nonverbal behavior* (pp. 401–432). New York: Cambridge University Press.
- Brambilla, M., Biella, M., & Freeman, J. B. (2018). The influence of visual context on the evaluation of facial trustworthiness. *Journal of Experimental Social Psychology, 78*, 34–42.
- Brambilla, M., & Butz, D. A. (2013). Intergroup threat and outgroup attitudes: Macro-level symbolic threat increases prejudice against gay men. *Social Psychology, 44*, 311–319.
- Brambilla, M., Carraro, L., Castelli, L., & Sacchi, S. (2019). Changing impressions: Moral character dominates impression updating. *Journal of Experimental Social Psychology, 82*, 64–73.
- Brambilla, M., Hewstone, M., & Colucci, F. P. (2013). Enhancing moral virtues: Increased perceived outgroup morality as a mediator of intergroup contact effects. *Group Processes & Intergroup Relations, 16*, 648–657.
- Brambilla, M., & Leach, C. W. (2014). On the importance of being moral: The distinctive role of morality in social judgment. *Social Cognition, 32*, 397–408.
- Brambilla, M., Masi, M., Mattavelli, S., & Biella, M. (2021). Faces and sounds becoming one: Cross-modal integration of facial and auditory cues in judging trustworthiness. *Social Cognition, 39*, 315–326.
- Brambilla, M., & Riva, P. (2017). Predicting pleasure at others' misfortune: Morality trumps sociability and competence in driving deservingness and schadenfreude. *Motivation and Emotion, 41*, 243–253.
- Brambilla, M., Rusconi, P., Sacchi, S., & Cherubini, P. (2011). Looking for honesty: The primary role of morality (vs. sociability and competence) in information gathering. *European Journal of Social Psychology, 41*, 135–143.
- Brambilla, M., Sacchi, S., Menegatti, M., & Moscatelli, S. (2016). Honesty and dishonesty don't move together: Trait content information influences behavioral synchrony. *Journal of Nonverbal Behavior, 40*, 171–186.
- Brambilla, M., Sacchi, S., Pagliaro, S., & Ellemers, N. (2013). Morality and intergroup relations: Threats to safety and group image predict the desire to interact with outgroup and ingroup members. *Journal of Experimental Social Psychology, 49*, 811–821.

- Brambilla, M., Sacchi, S., Rusconi, P., Cherubini, P., & Yzerbyt, V. Y. (2012). You want to give a good impression? Be honest! Moral traits dominate group impression formation. *British Journal of Social Psychology, 51*, 149–166.
- Brannon, S. M., & Gawronski, B. (2017). A second chance for first impressions? Exploring the context-(in) dependent updating of implicit evaluations. *Social Psychological and Personality Science, 8*, 275–283.
- Cacioppo, J. T., & Berntson, G. G. (1994). Relationship between attitudes and evaluative space: A critical review, with emphasis on the separability of positive and negative substrates. *Psychological Bulletin, 115*, 401–423.
- Cacioppo, J. T., & Berntson, G. G. (1999). The affect system: Architecture and operating characteristics. *Current Directions in Psychological Science, 8*, 133–137.
- Cameron, J. A., & Trope, Y. (2004). Stereotype-biased search and processing of information about group members. *Social Cognition, 22*, 650–672.
- Campbell, J. B., & Heller, J. F. (1987). Correlations of extraversion, impulsivity and sociability with sensation seeking and MBTI-introversion. *Personality and Individual Differences, 8*, 133–136.
- Carlston, D. E. (Ed.). (2013). *The Oxford handbook of social cognition*. New York, NY: Oxford University Press.
- Chaiken, S., & Stangor, C. (1987). Attitudes and attitude change. *Annual Review of Psychology, 38*, 575–630.
- Chartrand, T. L., & Bargh, J. A. (1999). The chameleon effect: The perception-behavior link and social interaction. *Journal of Personality and Social Psychology, 76*, 893–910.
- Chartrand, T. L., & Lakin, J. L. (2013). The antecedents and consequences of human behavioral mimicry. *Annual Review of Psychology, 64*, 285–308.
- Chartrand, T. L., Maddux, W. W., & Lakin, J. L. (2005). Beyond the perception-behavior link: The ubiquitous utility and motivational moderators of nonconscious mimicry. In R. R. Hassin, J. S. Uleman, & J. A. Bargh (Eds.), *Oxford series in social cognition and social neuroscience. The new unconscious* (pp. 334–361). New York, NY: Oxford University Press.
- Chen, M., & Bargh, J. A. (1997). Nonconscious behavioral confirmation processes: The self-fulfilling consequences of automatic stereotype activation. *Journal of Experimental Social Psychology, 33*, 541–560.
- Cherubini, P., Rusconi, P., Russo, S., Di Bari, S., & Sacchi, S. (2010). Preferences for different questions when testing hypotheses in an abstract task: Positivity does play a role, asymmetry does not. *Acta Psychologica, 134*, 162–174.
- Cialdini, R. B., Petty, R. E., & Cacioppo, J. T. (1981). Attitude and attitude change. *Annual Review of Psychology, 32*, 357–404.
- Clausell, E., & Fiske, S. T. (2005). When do subgroup parts add up to the stereotypic whole? Mixed stereotype content for gay male subgroups explains overall ratings. *Social Cognition, 23*, 161–181.
- Cone, J., & Ferguson, M. J. (2015). He did what? The role of diagnosticity in revising implicit evaluations. *Journal of Personality and Social Psychology, 108*, 37–57.
- Cone, J., Mann, T. C., & Ferguson, M. J. (2017). Changing our implicit minds: How, when, and why implicit evaluations can be rapidly revised. *Advances in Experimental Social Psychology, 56*, 131–199.
- Cooper, J., & Croyle, R. T. (1984). Attitudes and attitude change. *Annual Review of Psychology, 35*, 395–426.
- Cottrell, C. A., Neuberg, S. L., & Li, N. P. (2007). What do people desire in others? A sociofunctional perspective on the importance of different valued characteristics. *Journal of Personality and Social Psychology, 92*, 208–231.
- Crockett, M. J., Everett, J. A. C., Gill, M., & Siegel, J. Z. (2021). The relational logic of moral inference. *Advances in Experimental Social Psychology, 64*.

- Cuddy, A. J. C., Fiske, S. T., & Glick, P. (2008). Warmth and competence as universal dimensions of social perception: The stereotype content model and the BIAS map. *Advances in Experimental Social Psychology*, *40*, 61–149.
- Dardenne, B., Dumont, M., Grégoire, C., & Sarlet, M. (2011). Mood and positive testing in social interaction. *European Journal of Social Psychology*, *41*, 52–63.
- Dardenne, B., & Leyens, J.-P. (1995). Confirmation bias as a social skill. *Personality and Social Psychology Bulletin*, *21*, 1229–1239.
- Darley, J. M., & Gross, P. H. (1983). A hypothesis-confirming bias in labeling effects. *Journal of Personality and Social Psychology*, *44*, 20–33.
- De Bruin, E. N., & Van Lange, P. A. (1999). Impression formation and cooperative behavior. *European Journal of Social Psychology*, *29*, 305–328.
- De Bruin, E. N. M., & Van Lange, P. A. M. (2000). What people look for in others: Influences of the perceiver and the perceived on information selection. *Personality and Social Psychology Bulletin*, *26*, 206–219.
- De Waal, F. (1996). *Good natured: The origins of right and wrong in humans and other animals*. Cambridge, MA: Harvard University Press.
- Deutsch, M. (1982). Interdependence and psychological orientation. In V. Derlega, & J. L. Grzelek (Eds.), *Cooperation and helping behavior: Theories and research* (pp. 15–42). New York: Academic Press.
- Devine, P. G. (1989). Stereotypes and prejudice: Their automatic and controlled components. *Journal of Personality and Social Psychology*, *56*, 5–18.
- Devine, P. G., Hirt, E. R., & Gehrke, E. M. (1990). Diagnostic and confirmation strategies in trait hypothesis testing. *Journal of Personality and Social Psychology*, *58*, 952–963.
- Dijksterhuis, A., Aarts, H., Bargh, J. A., & Van Knippenberg, A. (2000). On the relation between associative strength and automatic behavior. *Journal of Experimental Social Psychology*, *36*, 531–544.
- Dijksterhuis, A., & Bargh, J. A. (2001). The perception-behavior expressway: Automatic effects of social perception on social behavior. *Advances in Experimental Social Psychology*, *33*, 1–40.
- Dijksterhuis, A., Spears, R., & Lépinasse, V. (2001). Reflecting and deflecting stereotypes: Assimilation and contrast in impression formation and automatic behavior. *Journal of Experimental Social Psychology*, *37*, 286–299.
- Duffy, K. A., & Chartrand, T. L. (2017). From mimicry to morality: The role of prosociality. In W. Sinnott-Armstrong, & C. B. Miller (Eds.), *Moral psychology: Virtue and character* (pp. 439–464). Cambridge, MA: MIT Press.
- Dunning, D. (2004). On the motives underlying social cognition. In M. Brewer, & M. Hewstone (Eds.), *Emotion and motivation* (pp. 137–164). Oxford: Blackwell.
- Earle, T. C., Siegrist, M., & Gutscher, H. (2010). Trust, risk perception and the TCC model of cooperation. In M. Siegrist, T. C. Earle, & H. Gutscher (Eds.), *Trust in cooperative risk management: Uncertainty and skepticism in the public mind* (pp. 1–49). London, UK: Earthscan.
- Ellemers, N., Pagliaro, S., & Barreto, M. (2013). Morality and behavioural regulation in groups: A social identity approach. *European Review of Social Psychology*, *24*, 160–193.
- Ellemers, N., Pagliaro, S., Barreto, M., & Leach, C. W. (2008). Is it better to be moral than smart? The effects of morality and competence norms on the decision to work at group status improvement. *Journal of Personality and Social Psychology*, *95*, 1397–1410.
- Ellemers, N., Spears, R., & Doosje, B. (2002). Self and social identity. *Annual Review of Psychology*, *53*, 161–186.
- Ellemers, N., & Van den Bos, K. (2012). Morality in groups: On the social-regulatory functions of right and wrong. *Social and Personality Psychology Compass*, *6*, 878–889.

- Epley, N., & Dunning, D. (2000). Feeling “holier than thou”: Are self-serving assessments produced by errors in self- or social prediction? *Journal of Personality and Social Psychology*, *79*, 861–875.
- Everett, J. A., Faber, N. S., Savulescu, J., & Crockett, M. J. (2018). The costs of being consequentialist: Social inference from instrumental harm and impartial beneficence. *Journal of Experimental Social Psychology*, *79*, 200–216.
- Everett, J. A., Pizarro, D. A., & Crockett, M. J. (2016). Inference of trustworthiness from intuitive moral judgments. *Journal of Experimental Psychology: General*, *145*, 772–787.
- Evetts, S. R., Devine, P. G., Hirt, E. R., & Price, J. (1994). The role of the hypothesis and the evidence in the trait hypothesis testing process. *Journal of Experimental Social Psychology*, *30*, 456–481.
- Fazio, R. H. (1990). Multiple processes by which attitudes guide behavior: The mode model as an integrative framework. *Advances in Experimental Social Psychology*, *23*, 75–109.
- Ferguson, M. J., Mann, T. C., Cone, J., & Shen, X. (2019). When and how implicit first impressions can be updated. *Current Directions in Psychological Science*, *28*, 331–336.
- Fishbein, M., Jaccard, J., Davidson, A. R., Ajzen, I., & Loken, B. (1980). Predicting and understanding family planning behaviors. In *Understanding attitudes and predicting social behavior* Prentice Hall.
- Fiske, S. T. (1980). Attention and weight in person perception: The impact of negative and extreme behavior. *Journal of Personality and Social Psychology*, *38*, 889–906.
- Fiske, S. T. (1992). Thinking is for doing: Portraits of social cognition from daguerreotype to laserphoto. *Journal of Personality and Social Psychology*, *63*, 877–889.
- Fiske, S. T. (2018). Stereotype content: Warmth and competence endure. *Current Directions in Psychological Science*, *27*, 67–73.
- Fiske, S. T., Cuddy, A. J. C., & Glick, P. (2007). Universal dimensions of social cognition: Warmth and competence. *Trends in Cognitive Sciences*, *11*, 77–83.
- Fiske, S. T., Cuddy, A. J. C., Glick, P., & Xu, J. (2002). A model of (often mixed) stereotype content: Competence and warmth respectively follow from perceived status and competition. *Journal of Personality and Social Psychology*, *82*, 878–902.
- Foot, P. (1967). *Theories of ethics*. Oxford: Oxford University Press.
- Gawronski, B., & Bodenhausen, G. V. (2006). Associative and propositional processes in evaluation: An integrative review of implicit and explicit attitude change. *Psychological Bulletin*, *132*, 692–731.
- Goodwin, G. P. (2015). Moral character in person perception. *Current Directions in Psychological Science*, *24*, 38–44.
- Goodwin, G. P., Piazza, J., & Rozin, P. (2012). *What are the most important features of a person?*. Unpublished raw data.
- Goodwin, G. P., Piazza, J., & Rozin, P. (2014). Moral character predominates in person perception and evaluation. *Journal of Personality and Social Psychology*, *106*, 148–168.
- Graham, J., Nosek, B. A., Haidt, J., Iyer, R., Koleva, S., & Ditto, P. H. (2011). Mapping the moral domain. *Journal of Personality and Social Psychology*, *101*, 366–385.
- Gray, K., & Graham, J. (Eds.). (2019). *Atlas of moral psychology*. New York: Guilford Publications.
- Gregg, A. P., Seibt, B., & Banaji, M. R. (2006). Easier done than undone: Asymmetry in the malleability of implicit preferences. *Journal of Personality and Social Psychology*, *90*, 1–20.
- Hahn, U., & Harris, A. J. L. (2014). What does it mean to be biased: Motivated reasoning and rationality. In B. H. Ross (Ed.), *Vol. 61. Psychology of learning and motivation* (pp. 41–102). New York: Academic Press.
- Haidt, J. (2007). The new synthesis in moral psychology. *Science*, *316*, 998–1002.
- Haidt, J., & Graham, J. (2007). When morality opposes justice: Conservatives have moral intuitions that liberals may not recognize. *Social Justice Research*, *20*, 98–116.

- Haidt, J., Koller, S. H., & Dias, M. G. (1993). Affect, culture, and morality, or is it wrong to eat your dog? *Journal of Personality and Social Psychology*, *65*, 613–628.
- Harris, L. T., & Fiske, S. T. (2006). Dehumanizing the lowest of the low: Neuroimaging responses to extreme out-groups. *Psychological Science*, *17*, 847–853.
- Herek, G. M. (2000). The psychology of sexual prejudice. *Current Directions in Psychological Science*, *9*, 19–22.
- Hove, M. J., & Risen, J. L. (2009). It's all in the timing: Interpersonal synchrony increases affiliation. *Social Cognition*, *27*, 949–960.
- Iachini, T., Pagliaro, S., & Ruggiero, G. (2015). Near or far? It depends on my impression: Moral information and spatial behavior in virtual interactions. *Acta Psychologica*, *161*, 131–136.
- Jones, E. E., & Davis, K. E. (1965). From acts to dispositions: The attribution process in person perception. *Advances in Experimental Social Psychology*, *2*, 219–266.
- Kanouse, D. E. (1984). Explaining negativity biases in evaluation and choice behavior: Theory and research. *Advances in Consumer Research*, *11*, 703–708.
- Kanouse, D. E., & Hanson, L. R. J. (1972). Negativity in evaluations. In E. E. Jones, D. E. Kanouse, H. H. Kelley, R. E. Nisbett, S. Valins, & B. Weiner (Eds.), *Attribution: Perceiving the causes of behavior* (pp. 47–62). New York: General Learning Press.
- Kant, I. (1959). *Foundation of the metaphysics of morals*. Indianapolis: Bobbs-Merrill.
- Katz, D., & Braly, K. (1933). Racial stereotypes of one hundred college students. *The Journal of Abnormal and Social Psychology*, *28*, 280–290.
- Kenrick, D. T., & Shiota, M. N. (2008). Approach and avoidance motivation(s): An evolutionary perspective. In A. J. Elliot (Ed.), *Handbook of approach and avoidance motivation* (pp. 273–288). New York: Psychology Press.
- Killien, M., & Smetana, J. G. (Eds.). (2006). *Handbook of moral development*. New York: Psychology Press.
- Klayman, J. (1995). Varieties of confirmation bias. *Psychology of Learning and Motivation*, *32*, 385–418.
- Klayman, J., & Ha, Y. W. (1987). Confirmation, disconfirmation, and information in hypothesis testing. *Psychological Review*, *94*, 211–228.
- Koch, A., Imhoff, R., Dotsch, R., Unkelbach, C., & Alves, H. (2016). The ABC of stereotypes about groups: Agency/socioeconomic success, conservative–progressive beliefs, and communion. *Journal of Personality and Social Psychology*, *110*, 675–709.
- Koch, A., Imhoff, R., Unkelbach, C., Nicolas, G., Fiske, S., Terache, J., ... Yzerbyt, V. (2020). Groups' warmth is a personal matter: Understanding consensus on stereotype dimensions reconciles adversarial models of social evaluation. *Journal of Experimental Social Psychology*, *89*, 103995.
- Koch, A., Yzerbyt, V., Abele, A., Ellemers, N., & Fiske, S. T. (2021). Social evaluation: Comparing models across interpersonal, intragroup, intergroup, several-group, and many-group contexts. *Advances in Experimental Social Psychology*, *63*, 1–68.
- Kohlberg, L. (1969). Stage and sequence: The cognitive development approach to socialization. In D. A. Goslin (Ed.), *Handbook of socialization theory* (pp. 347–480). Chicago, IL: Rand McNally.
- Kunda, Z., & Oleson, K. C. (1995). Maintaining stereotypes in the face of disconfirmation: Constructing grounds for subtyping deviants. *Journal of Personality and Social Psychology*, *68*, 565–579.
- Kunda, Z., & Oleson, K. C. (1997). When exceptions prove the rule: How extremity of deviance determines the impact of deviant examples on stereotypes. *Journal of Personality and Social Psychology*, *72*, 965–979.
- Kunda, Z., & Spencer, S. J. (2003). When do stereotypes come to mind and when do they color judgment? A goal-based theoretical framework for stereotype activation and application. *Psychological Bulletin*, *129*, 522–544.

- Landy, J. F., Piazza, J., & Goodwin, G. P. (2016). When it's bad to be friendly and smart: The desirability of sociability and competence depends on morality. *Personality and Social Psychology Bulletin*, *42*, 1272–1290.
- Landy, J. F., Piazza, J., & Goodwin, G. P. (2020). *Stereotypes in 3D: Distinct contributions of morality, sociability, and competence to intergroup appraisals and emotions*. Manuscript in preparation.
- Leach, C. W., Bilali, R., & Pagliaro, S. (2015). Groups and morality. In J. Simpson, & J. F. Dovidio (Eds.), *APA handbook of personality and social psychology, volume 2: Interpersonal relationships and group processes* (pp. 123–149). Washington, DC: American Psychological Association.
- Leach, C. W., Ellemers, N., & Barreto, M. (2007). Group virtue: The importance of morality (vs. competence and sociability) in the positive evaluation of in-groups. *Journal of Personality and Social Psychology*, *93*, 234–249.
- Liebrand, W. B. G., Jansen, R. W. T. L., Rijken, V. M., & Suhre, C. J. M. (1986). Might over morality: Social values and the perception of other players in experimental games. *Journal of Experimental Social Psychology*, *22*, 203–215.
- Liefgreen, A., Pilditch, T., & Lagnado, D. (2020). Strategies for selecting and evaluating information. *Cognitive Psychology*, *123*, 101332.
- Lin, M. H., Kwan, V. S., Cheung, A., & Fiske, S. T. (2005). Stereotype content model explains prejudice for an envied outgroup: Scale of anti-Asian American stereotypes. *Personality and Social Psychology Bulletin*, *31*, 34–47.
- Lucas, R. E., Diener, E., Grob, A., Suh, E. M., & Shao, L. (2000). Cross-cultural evidence for the fundamental features of extraversion. *Journal of Personality and Social Psychology*, *79*, 452–468.
- Madon, S. (1997). What do people believe about gay males? A study of stereotype content and strength. *Sex Roles*, *37*, 663–685.
- Mann, T. C., & Ferguson, M. J. (2015). Can we undo our first impressions? The role of reinterpretation in reversing implicit evaluations. *Journal of Personality and Social Psychology*, *108*, 823–849.
- Mann, T. C., & Ferguson, M. J. (2017). Reversing implicit first impressions through reinterpretation after a two-day delay. *Journal of Experimental Social Psychology*, *68*, 122–127.
- McCrae, R. R., & Costa, P. T. (1987). Validation of the five-factor model of personality across instruments and observers. *Journal of Personality and Social Psychology*, *52*, 81–90.
- McKenzie, C. R. M. (2004). Hypothesis testing and evaluation. In D. J. Koehler, & N. Harvey (Eds.), *Blackwell handbook of judgment and decision making* (pp. 200–219). Malden, MA, US: Blackwell Publishing.
- Meindl, P., Johnson, K. M., & Graham, J. (2016). The immoral assumption effect: Moralization drives negative trait attributions. *Personality and Social Psychology Bulletin*, *42*, 540–553.
- Mende-Siedlecki, P., Baron, S. G., & Todorov, A. (2013). Diagnostic value underlies asymmetric updating of impressions in the morality and ability domains. *The Journal of Neuroscience*, *33*, 19406–19415.
- Mende-Siedlecki, P., Cai, Y., & Todorov, A. (2013). The neural dynamics of updating person impressions. *Social Cognitive and Affective Neuroscience*, *8*, 623–631.
- Mende-Siedlecki, P., & Todorov, A. (2016). Neural dissociations between meaningful and mere inconsistency in impression updating. *Social Cognitive and Affective Neuroscience*, *11*, 1489–1500.
- Menegatti, M., Moscatelli, S., Brambilla, M., & Sacchi, S. (2020). The honest mirror: Morality as a moderator of spontaneous behavioral mimicry. *European Journal of Social Psychology*, *50*, 1394–1405.
- Merton, R. K. (1948). The self-fulfilling prophecy. *The Antioch Review*, *8*, 193–210.

- Miles, L. K., Griffiths, J., Richardson, M. J., & Macrae, C. N. (2010). Too late to coordinate: Contextual influences on behavioral synchrony. *European Journal of Social Psychology, 40*, 52–60.
- Miller, S. L., Zielaskowski, K., Maner, J. K., & Plant, E. A. (2012). Self-protective motivation and avoidance of heuristically threatening outgroups. *Evolution and Human Behavior, 33*, 726–735.
- Minson, J. A., & Monin, B. (2012). Do-gooder derogation: Disparaging morally motivated minorities to defuse anticipated reproach. *Social Psychological and Personality Science, 3*, 200–207.
- Monin, B. (2007). Holier than me? Threatening social comparison in the moral domain. *Revue Internationale de Psychologie Sociale, 20*, 53–68.
- Monk, R. (1990). *Ludwig Wittgenstein: The duty of genius*. New York, NY: The Free Press.
- Moscатели, S., Menegatti, M., Albarello, F., Pratto, F., & Rubini, M. (2019). Can we identify with a nation low in morality? The heavy weight of (im) morality in international comparison. *Political Psychology, 40*, 93–110.
- Nelson, J. D. (2005). Finding useful questions: On Bayesian diagnosticity, probability, impact, and information gain. *Psychological Review, 112*, 979–999.
- Nelson, J. D. (2008). Towards a rational theory of human information acquisition. In N. Chater, & M. Oaksford (Eds.), *The probabilistic mind: Prospects for Bayesian cognitive science* (pp. 143–163). Oxford, United Kingdom: Oxford University Press.
- Nickerson, R. S. (1998). Confirmation bias: A ubiquitous phenomenon in many guises. *Review of General Psychology, 2*, 175–220.
- Pagliaro, S., Brambilla, M., Sacchi, S., D'Angelo, M., & Ellemers, N. (2013). Initial impressions determine behaviours: Morality predicts the willingness to help newcomers. *Journal of Business Ethics, 117*, 37–44.
- Pagliaro, S., Ellemers, N., & Barreto, M. (2011). Sharing moral values: Anticipated ingroup respect as a determinant of adherence to morality-based (but not competence-based) group norms. *Personality and Social Psychology Bulletin, 37*, 1117–1129.
- Paladino, M. P., & Castelli, L. (2008). On the immediate consequences of intergroup categorization: Activation of approach and avoidance motor behavior toward ingroup and outgroup members. *Personality and Social Psychology Bulletin, 34*, 755–768.
- Peeters, G. (1983). Relational and informational patterns in social cognition. In W. Doise, & S. Moscovici (Eds.), *Current issues in European social psychology* (pp. 201–237). Cambridge: Cambridge University Press.
- Peeters, G., & Czapinski, J. (1990). Positive-negative asymmetry in evaluations: The distinction between affective and informational negativity effects. *European Review of Social Psychology, 1*, 33–60.
- Phalet, K., & Poppe, E. (1997). Competence and morality dimensions of national and ethnic stereotypes: A study in six eastern-European countries. *European Journal of Social Psychology, 27*, 703–723.
- Piaget, J. (1932). *The moral judgment of the child*. New York: Routledge.
- Piazza, J., Goodwin, G. P., Rozin, P., & Royzman, E. B. (2014). When a virtue is not a virtue: Conditional virtues in moral evaluation. *Social Cognition, 32*, 528–558.
- Poletiek, F. H. (2001). *Hypothesis-testing behaviour*. Hove, U.K.: Psychology Press.
- Poppe, E., & Linssen, H. (1999). In-group favouritism and the reflection of realistic dimensions of difference between national states in Central and Eastern European nationality stereotypes. *British Journal of Social Psychology, 38*, 85–102.
- Reeder, G. D. (1993). Trait-behavior relations and dispositional inference. *Personality and Social Psychology Bulletin, 19*, 586–593.
- Reeder, G. D. (1997). Dispositional inferences of ability: Content and process. *Journal of Experimental Social Psychology, 33*, 171–189.

- Reeder, G. D. (2006). From trait-behavior relations to perceived motives: An evolving view of positivity and negativity effects in person perception. *Polish Psychological Bulletin*, *37*, 191–202.
- Reeder, G. D., & Brewer, M. B. (1979). A schematic model of dispositional attribution in interpersonal perception. *Psychological Review*, *86*, 61–79.
- Reeder, G. D., & Coovert, M. D. (1986). Revising an impression of morality. *Social Cognition*, *4*, 1–17.
- Reeder, G. D., & Fulks, J. L. (1980). When actions speak louder than words: Implicational schemata and the attribution of ability. *Journal of Experimental Social Psychology*, *16*, 33–46.
- Reeder, G. D., Henderson, D. J., & Sullivan, J. J. (1982). From dispositions to behaviors: The flip side of attribution. *Journal of Research in Personality*, *16*, 355–375.
- Reeder, G. D., Messick, D. M., & Van Avermaet, E. (1977). Dimensional asymmetry in attributional inference. *Journal of Experimental Social Psychology*, *13*, 46–57.
- Reeder, G. D., Pryor, J. B., & Wojciszke, B. (1992). Trait-behavior relations in social information processing. In G. R. Semin, & K. Fiedler (Eds.), *Language, interaction and social cognition* (pp. 37–57). London: Sage.
- Reeder, G. D., & Spores, J. M. (1983). The attribution of morality. *Journal of Personality and Social Psychology*, *44*, 736–745.
- Riek, B. M., Mania, E. W., & Gaertner, S. L. (2006). Intergroup threat and outgroup attitudes: A meta-analytic review. *Personality and Social Psychology Review*, *10*, 336–353.
- Riskey, D. R., & Birnbaum, M. H. (1974). Compensatory effects in moral judgment: Two rights don't make up for a wrong. *Journal of Experimental Psychology*, *103*, 171–173.
- Rom, S. C., Weiss, A., & Conway, P. (2017). Judging those who judge: Perceivers infer the roles of affect and cognition underpinning others' moral dilemma responses. *Journal of Experimental Social Psychology*, *69*, 44–58.
- Rosenberg, S., Nelson, C., & Vivekananthan, P. S. (1968). A multidimensional approach to the structure of personality impressions. *Journal of Personality and Social Psychology*, *9*, 283–294.
- Ross, W. D. (1999). Nicomachean ethics. *Ethics*, *xxvii*, 441.
- Rothbart, M., & John, O. P. (1985). Social categorization and behavioral episodes: A cognitive analysis of the effects of intergroup contact. *Journal of Social Issues*, *41*, 81–104.
- Rothbart, M., & Park, B. (1986). On the confirmability and disconfirmability of trait concepts. *Journal of Personality and Social Psychology*, *50*, 131–142.
- Rozin, P., & Royzman, E. B. (2001). Negativity bias, negativity dominance, and contagion. *Personality and Social Psychology Review*, *5*, 296–320.
- Rusconi, P., Sacchi, S., Brambilla, M., Capellini, R., & Cherubini, P. (2020). Being honest and acting consistently: Boundary conditions of the negativity effect in the attribution of morality. *Social Cognition*, *38*, 146–178.
- Rusconi, P., Sacchi, S., Capellini, R., Brambilla, M., & Cherubini, P. (2017). You are fair, but I expect you to also behave unfairly: Positive asymmetry in trait-behavior relations for moderate morality information. *PLoS One*, *12*, e0180686.
- Rusconi, P., Sacchi, S., Toscano, A., & Cherubini, P. (2012). Confirming expectations in asymmetric and symmetric social hypothesis testing. *Experimental Psychology*, *59*, 243–250.
- Rydell, R. J., & McConnell, A. R. (2006). Understanding implicit and explicit attitude change: A systems of reasoning analysis. *Journal of Personality and Social Psychology*, *91*, 995–1008.
- Rydell, R. J., McConnell, A. R., Strain, L. M., Claypool, H. M., & Hugenberg, K. (2007). Implicit and explicit attitudes respond differently to increasing amounts of counter-attitudinal information. *European Journal of Social Psychology*, *37*, 867–878.
- Sacchi, S., Brambilla, M., & Graupmann, V. (2021). Basking in detected vice: Outgroup immorality enhances self-view. *Group Processes & Intergroup Relations*. in press.

- Sacchi, S., Rusconi, P., Bonomi, M., & Cherubini, P. (2014). Effects of asymmetric questions on impression formation: A trade-off between evidence diagnosticity and frequency. *Social Psychology, 45*, 41–53.
- Sacchi, S., Rusconi, P., Russo, S., Bettiga, R., & Cherubini, P. (2012). New knowledge for old credences: Asymmetric information search about in-group and out-group members. *British Journal of Social Psychology, 51*, 606–625.
- Sacco, D. F., Brown, M., Lustgraaf, C. J., & Hugenberg, K. (2017). The adaptive utility of deontology: Deontological moral decision-making fosters perceptions of trust and likeability. *Evolutionary Psychological Science, 3*, 125–132.
- Semin, G. R. (2007). Grounding communication: Synchrony. In A. Kruglanski, & E. T. Higgins (Eds.), *Social psychology: Handbook of basic principles* (2nd ed., pp. 630–649). New York: Guilford Publications.
- Semin, G. R., & Cacioppo, J. T. (2008). Grounding social cognition: Synchronization, entrainment and coordination. In G. R. Semin, & E. R. Smith (Eds.), *Embodied grounding: Social, cognitive, affective, and neuroscientific approaches* (pp. 119–147). New York: Cambridge University Press.
- Semin, G. R., & Strack, F. (1980). The plausibility of the implausible: A critique of Snyder and Swann (1978). *European Journal of Social Psychology, 10*, 379–388.
- Shweder, R. A., Much, N. C., Mahapatra, M., & Park, L. (1997). The “big three” of morality (autonomy, community, divinity) and the “big three” explanations of suffering. In A. Brandt, & P. Rozin (Eds.), *Morality and health* (pp. 119–169). New York: Routledge.
- Skov, R. B., & Sherman, S. J. (1986). Information-gathering processes: Diagnosticity, hypothesis-confirmatory strategies, and perceived hypothesis confirmation. *Journal of Experimental Social Psychology, 22*, 93–121.
- Skowronski, J. J. (2002). Honesty and intelligence judgments of individuals and groups: The effects of entity-related behavior diagnosticity and implicit theories. *Social Cognition, 20*, 136–169.
- Skowronski, J. J., & Carlston, D. E. (1987). Social judgement and social memory: The role of cue diagnosticity in negativity, positivity, and extremity biases. *Journal of Personality and Social Psychology, 52*, 689–699.
- Skowronski, J. J., & Carlston, D. E. (1989). Negativity and extremity biases in impression formation: A review of explanations. *Psychological Bulletin, 105*, 131–142.
- Skowronski, J. J., & Carlston, D. E. (1992). Caught in the act: When impressions based on highly diagnostic behaviours are resistant to contradiction. *European Journal of Social Psychology, 22*, 435–452.
- Slowiaczek, L. M., Klayman, J., Sherman, S. J., & Skov, R. B. (1992). Information selection and use in hypothesis testing: What is a good question, and what is a good answer? *Memory & Cognition, 20*, 392–405.
- Smeesters, D., Warlop, L., Van Avermaet, E., Corneille, O., & Yzerbyt, V. (2003). Do not prime hawks with doves: The interplay of construct activation and consistency of social value orientation on cooperative behavior. *Journal of Personality and Social Psychology, 84*, 972–987.
- Snyder, M. (1992). Motivational foundations of behavioral confirmation. *Advances in Experimental Social Psychology, 25*, 67–114.
- Snyder, M., & Swann, W. B. J. (1978). Hypothesis-testing processes in social interaction. *Journal of Personality and Social Psychology, 36*, 1202–1212.
- Stel, M., Blascovich, J., McCall, C., Mastop, J., Van Baaren, R. B., & Vonk, R. (2010). Mimicking disliked others: Effects of a priori liking on the mimicry-liking link. *European Journal of Social Psychology, 40*, 876–880.
- Suls, J., & Wheeler, L. (Eds.). (2013). *Handbook of social comparison: Theory and research*. New York, NY: Kluwer Academic/Plenum Press.

- Tajfel, H., & Turner, J. C. (1979). An integrative theory of inter-group conflict. In W. G. Austin, & S. Worchel (Eds.), *The social psychology of intergroup relations* (pp. 33–47). Monterey, CA: Brooks-Cole.
- Tausch, N., Kenworthy, J. B., & Hewstone, M. (2007). The confirmability and disconfirmability of trait concepts revisited: Does content matter? *Journal of Personality and Social Psychology*, *92*, 542–556.
- Taylor, S. E. (1991). Asymmetrical effects of positive and negative events: The mobilization-minimization hypothesis. *Psychological Bulletin*, *110*, 67–85.
- Todorov, A. (2008). Evaluating faces on trustworthiness: An extension of systems for recognition of emotions signaling approach/avoidance behaviors. *The Annals of the New York Academy of Sciences*, *1124*, 208–224.
- Todorov, A., & Oh, D. W. (2021). The structure and perceptual basis of social judgments from faces. *Advances in Experimental Social Psychology*, *63*, 189–245.
- Todorov, A., Olivola, C. Y., Dotsch, R., & Mende-Siedlecki, P. (2015). Social attributions from faces: Determinants, consequences, accuracy, and functional significance. *Annual Review of Psychology*, *66*, 519–545.
- Trope, Y., & Liberman, A. (1996). Social hypothesis testing: Cognitive and motivational factors. In E. T. Higgins, & A. W. Kruglanski (Eds.), *Social psychology: Handbook of basic principles* (pp. 239–270). New York, NY: Guilford Press.
- Trope, Y., & Thompson, E. P. (1997). Looking for truth in all the wrong places? Asymmetric search of individuating information about stereotyped group members. *Journal of Personality and Social Psychology*, *73*, 229–241.
- Unkelbach, C., Alves, H., & Koch, A. (2020). Negativity bias, positivity bias, and valence asymmetries: Explaining the differential processing of positive and negative information. *Advances in Experimental Social Psychology*, *62*, 115–187.
- Valdesolo, P., Ouyang, J., & DeSteno, D. (2010). The rhythm of joint action: Synchrony promotes cooperative ability. *Journal of Experimental Social Psychology*, *46*, 693–695.
- Van Lange, P. A., & Kuhlman, D. M. (1994). Social value orientations and impressions of partner's honesty and intelligence: A test of the might versus morality effect. *Journal of Personality and Social Psychology*, *67*, 126–141.
- Vezzali, L., Brambilla, M., Giovannini, D., & Paolo Colucci, F. (2017). Strengthening purity: Moral purity as a mediator of direct and extended cross-group friendships on sexual prejudice. *Journal of Homosexuality*, *64*, 716–730.
- Vezzali, L., Di Bernardo, G. A., Birtel, M. D., Stathi, S., & Brambilla, M. (2020). Outgroup morality perceptions mediate secondary transfer effects from direct and extended contact: Evidence from majority and minority group members. *Group Processes & Intergroup Relations*, *23*, 1066–1084.
- Wason, P. C. (1960). On the failure to eliminate hypotheses in a conceptual task. *Quarterly Journal of Experimental Psychology*, *12*, 129–140.
- Wason, P. C. (1968). Reasoning about a rule. *Quarterly Journal of Experimental Psychology*, *20*, 273–281.
- Williams, K. D., Cheung, C. K., & Choi, W. (2000). Cyberostracism: Effects of being ignored over the internet. *Journal of Personality and Social Psychology*, *79*, 748–762.
- Willis, J., & Todorov, A. (2006). First impressions: Making up your mind after a 100-ms exposure to a face. *Psychological Science*, *17*, 592–598.
- Wills, T. A. (1981). Downward comparison principles in social psychology. *Psychological Bulletin*, *90*, 245–271.
- Wojciszke, B. (1994). Multiple meanings of behavior: Construing actions in terms of competence or morality. *Journal of Personality and Social Psychology*, *67*, 222–232.
- Wojciszke, B. (2005). Morality and competence in person- and self-perception. *European Review of Social Psychology*, *16*, 155–188.

- Wojciszke, B., & Abele, A. E. (2008). The primacy of communion over agency and its reversals in evaluations. *European Journal of Social Psychology*, *38*, 1139–1147.
- Wojciszke, B., Bazinska, R., & Jaworski, M. (1998). On the dominance of moral categories in impression formation. *Personality and Social Psychology Bulletin*, *24*, 1251–1263.
- Wojciszke, B., Brycz, H., & Borkenau, P. (1993). Effects of information content and evaluative extremity on positivity and negativity biases. *Journal of Personality and Social Psychology*, *64*, 327–335.
- Wojciszke, B., Dowhyluk, M., & Jaworski, M. (1998). Moral and competence-related traits: How do they differ? *Polish Psychological Bulletin*, *29*, 283–294.
- Wyer, N. A. (2010). You never get a second chance to make a first (implicit) impression: The role of elaboration in the formation and revision of implicit impressions. *Social Cognition*, *28*, 1–19.
- Ybarra, O., Chan, E., & Park, D. (2001). Young and old adults' concerns about morality and competence. *Motivation and Emotion*, *25*, 85–100.
- Zanna, M. P., & Fazio, R. H. (1982). The attitude-behavior relation: Moving toward a third generation of research. In M. P. Zanna, E. T. Higgins, & C. P. Herman (Eds.), *Vol. 2. Consistency in social behavior: The Ontario symposium* (pp. 283–301). Hillsdale, NJ: Erlbaum.