Social norms and social influence
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Psychology has a long history of demonstrating the power and reach of social norms; they can hardly be overestimated. To demonstrate their enduring influence on a broad range of social phenomena, we describe two fields where research continues to highlight the power of social norms: prejudice and energy use. The prejudices that people report map almost perfectly onto what is socially appropriate, likewise, people adjust their energy use to be more in line with their neighbors. We review new approaches examining the effects of norms stemming from *multiple* groups, and utilizing normative referents to shift behaviors in social networks. Though the focus of less research in recent years, our review highlights the fundamental influence of social norms on social behavior.

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The most central, useful, powerful set of social psychological ideas is the triumvirate of imitation, conformity, and social norms. Social norms are the foundation of culture, of language, of social interaction, cuisine, love, marriage, play, prejudice, economic exchange and traffic control. The elements of this list are fundamental to human life; the list is endless.

The human organism is built for social norms. The foundations of social norms in imitation and social learning are common to all primates [1], and are especially developed in humans [2•]. Well-developed brain structures support awareness of others (e.g., facial recognition [3]; mirror neurons [4]), and human language capacity [5] are fundamental to social coordination.

Like other primates, humans pay careful attention to others [6], and they imitate what they see [7]. But knowledge of others' actions (or beliefs, emotions, values) and their imitation is not enough to implicate social norms. Imitation is common enough in many forms of life — what creates the foundation for culture and society is not the imitation, but *the expectation of others for when imitation is appropriate, and when it is not.*

A social norm is an expectation about appropriate behavior that occurs in a group context. Sherif and Sherif [8] say that social norms are 'formed in group situations and subsequently serve as standards for the individual's perception and judgment when he [sic] is not in the group situation. The individual's major social attitudes are formed in relation to group norms (pp. 202–203).' Social norms, or group norms, are 'regularities in attitudes and behavior that characterize a social group and differentiate it from other social groups' [9•] (p. 7).

What do norms do?
Norms not only detail what is appropriate behavior, but these expectations in turn define what the group does, and who the group is. Identity is formed by group norms, and by conforming to them. Deviation from social norms leads first to communication designed to engender conformity [10••], and if social expectations are not met and if the social norm is important, deviation leads to loss of social status or exclusion [11•].

Are there different kinds of norms?
Many psychologists have differentiated among norms and the role they play in social influence. One durable distinction is between norms that simply describe what people in a group do, and norms that describe what people in a group *should* do [12]. Cialdini *et al.* [13••] characterize *descriptive* norms as 'the norms of what is,' a sort of informational summary of how a group behaves, and *injunctive* norms as 'the perception of what most people approve or disapprove (or the norms of *ought*)' [13••] (p. 203).

Different kinds of norms are thought to determine different kinds of influence. Descriptive, informational norms lead to influence through education and conversion — the process of conforming to descriptive norms has been called 'informational social influence,' and the attitudes that form, or behavior that results from this kind of influence is seen as genuine and unstrained. When norms are about what a group considers appropriate, moral, or necessary — injunctive norms — the process of conforming has been called 'normative group pressure,' and the attitudes that form, or behavior that results from this kind of influence is seen as managed, ambivalent, less genuine, and often conflicted [14•].

Recent research provides compelling evidence for the existence of distinct forms of normative influence. Jacobson et al. [15•] demonstrated that injunctive norms are associated with more interpersonally oriented self-awareness and greater conflict about conformity decisions. Their findings show that exhaustion or depletion leads to decreased conformity to injunctive norm information but *increased* conformity to descriptive norms. Different motivations underlie conformity to descriptive and injunctive norms. In a similar vein, Melnyk and colleagues [16] showed descriptive norms had greater influence under promotion than prevention focus, whereas injunctive norm influence was unaffected by regulatory focus; the psychological underpinnings of conformity differ according to the type of normative information.

Normative influence is fundamental and pervasive; a complete review of their reach — or the research — would be impossible. To illustrate the importance of social norms, we next examine some recent advances in social norm research in two markedly different social domains: prejudice and energy conservation. A review of these quite distinct issues underscores the breadth of influence of social norms on social life, cognition, and behavior (Figure 1).

Prejudice: From the earliest research, social norms have been pointed to as a cause of prejudice, 'about half of all prejudiced attitudes are based only on the need to conform' [17] (p. 286). The norms approach emerged as an alternative to personality approaches [18], and research shows very high levels of conformity to norms in the prejudice domain [19••]. The presence of an audience (a normative cue) leads to more normative behavior (e.g., suppressed discrimination [20•]); this attentiveness to norms develops around 8–10 years of age [21].
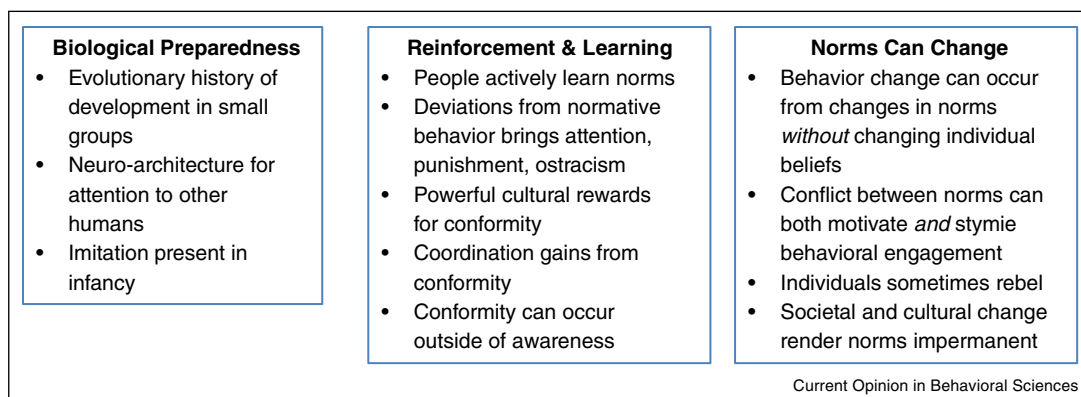
There is reason to believe that a failure to adapt norms in society *causes* prejudice. Crandall et al. [22•] show that the factors that contribute to the 'prejudiced personality' are mostly measures of the inability or unwillingness to adapt to social change (e.g., cognitive rigidity, low education, traditional religiosity, authoritarianism). They argue that the label 'prejudice' is based on changing social norms — a 'prejudice' is a negative attitude toward a group that is moving toward greater acceptability (e.g., toward LGBT people), but *not* toward groups with normatively stable social rejection (e.g., toward child molesters) or groups with stable and positive normative positions (e.g., toward White men or philanthropists). Crandall et al. [19••] showed that adaptation to social norms leads to the suppression of prejudice; as younger university students came to identify with their school and its norms, they showed growing internal motivation to suppress their prejudices.

One extraordinary example of the role of group norms in prejudice is the work of Paluck [23••], who used radio 'soap operas' to reduce ethnic tensions among the Hutus and Tutsis in Rwanda. The soap operas modeled friendly interaction across ethnic lines; exposure to the descriptive norms of the radio shows changed how listeners saw their communities, imitating the modeled behavior, including an increased acceptance of intermarriage, more tolerance of dissent, and more empathy for genocide survivors and prisoners of the Rwandan genocide. These changes occurred in the absence of change in their own attitudes toward the other ethnic group.

Energy use: Early models of energy use and pro-environmental behavior emphasized the importance of attitudes and knowledge [24] rather than social norms. More recently, social norms have become a primary focus of both empirical investigations and interventions to reduce energy use. Schultz and colleagues [25••] showed when people were given feedback on their energy bills indicating that they were using *less* energy than their neighbors, their energy use *increased*. This is a paradoxical result from descriptive norm information; rather than embracing what

Figure 1

Biological Preparedness	Reinforcement & Learning	Norms Can Change
• Evolutionary history of development in small groups • Neuro-architecture for attention to other humans • Imitation present in infancy	• People actively learn norms • Deviations from normative behavior brings attention, punishment, ostracism • Powerful cultural rewards for conformity • Coordination gains from conformity • Conformity can occur outside of awareness	• Behavior change can occur from changes in norms *without* changing individual beliefs • Conflict between norms can both motivate *and* stymie behavioral engagement • Individuals sometimes rebel • Societal and cultural change render norms impermanent

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The biological basis, and psychological process of conformity to — and deviance from — social norms.

was intended as positive feedback, normative information led families to imitate their (underperforming) neighbors. By contrast, the provision of subtle *injunctive* norms (a smiley face for low energy use) eliminated the negative effects of descriptive information; descriptive and injunctive norms often have distinct psychological impacts.

Research on energy use also suggests that normative influence is generally not detected. Nolan and colleagues [26•] showed that people saved the most energy if the message they received appealed to them to 'join your neighbors' in saving energy (implying a norm of energy saving among neighbors), in contrast to other messages that appealed to save the environment or save money. Although the join-your-neighbors message was most influential, when asked about how the messages had impacted their energy use, those who received this normative message rated it as the *least* influential. Social norms have powerful, and often unappreciated, influence on everyday behavioral decisions; their operation can confound intuition and common sense.

Social norms reflect group standards; when a person is in more than one group (e.g., family, friends, colleagues) and the group standards do not align, there is *normative conflict*. McDonald and colleagues [27••,28•] showed that for people already invested in environmental protection, conflict among the behavior of different groups of people (conflicting descriptive norms) was associated with an *increased* sense that saving water or saving energy were effective behaviors, participants increased intentions *and* actual conservation behavior. For people not invested in environmental protection, conflicting norms were associated with *decreased* sense that pro-environmental actions were effective, and decreased intentions to engage in behaviors like conserving energy at home. Conflicting norms can polarize people toward their attitudinal predispositions, due to the different attributions people make about the utility of action when considering conflicting norms. When faced with conflicting norms people may attribute reduced efficacy to individual actions, as others are not acting. Conversely, for some the information that not all others are acting may highlight the critical need for them, personally, to act. When making norms salient in persuasive messages, highlighting discrepancies between what different groups of people typically do for the environment can stymie willingness to change among for those most needing to amend their behavior.

Group identification is crucial in understanding the effects of social norms [29•]. Recent research examining the effects of social norms from an identity perspective demonstrates that the type, rather than just the degree, of identification with a group influences whether people will follow a group norm of climate protective behavior, such as conserving energy and eating a vegetarian diet [30•]. For people who felt their groups had climate-protective

norms, willingness to engage in climate protective actions came from seeing the ingroup as important and satisfying, but not seeing ingroup members as similar to the self. Normative interventions are unlikely to be effective merely because they depicts a norm of similar others, but rather require that the group is seen as important to the individual, and is satisfying social needs.

Wide-ranging power of norms

Though we have focussed on prejudice and energy use in this brief review of recent advances in norms research, work highlighting the impact of social norms is abundant in many domains, such as economics [31], health [32], and group therapy [33]. Social norms have also been the basis of a host of impactful behavior change interventions in a range of domains. For example, Paluck and Shepherd [34••] identified 'social referents' in a public high school — people who are widely known and served as informal social leaders. These social referents were trained by the researchers, and were used to change social norms and the acceptability of bullying in the schools. Students linked to the referents (people who came in contact with them, shared classes) became less tolerant of bullying; they imitated the modeled behavior. But more importantly, teachers reported significantly less bullying in classrooms with social referents, and bullying became less frequent among students with greater ties to the social referents. By comparison, students with close ties to a different group of social referents who were *not* trained to reduce bullying showed no change over the course of the study.

This review highlights the fundamental importance of social norms for understanding and changing social behaviors from reducing prejudice to increasing energy conservation. From basic processes of social imitation to complex effects of multiple ingroup norms, social norms are a central defining construct in social psychology, across myriad domains. The widespread, impactful, persistent, and often undetected effects of social norms demonstrate that they are fundamental to social behavior, and a necessary target of continuing research.

Conflict of interest statement
Nothing declared.

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