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Mapping the Social Norms Literature: An Overview of Reviews

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Abstract

The theoretical literature on social norms is multi-faceted and at times contradictory. Looking at existing reviews, we aimed to offer a more complete understanding of its current status. By investigating the conceptual frameworks and organizing elements used to compare social norms theories, we identified four theoretical spaces of inquiry that were common across the reviews: 1) what social norms are, 2) what relationship exists between social norms and behaviour, 3) how social norms evolve, and 3) what categories of actors must be considered in the study of social norms. We highlighted areas of consensus and debate in the reviews around these four themes, discussing points of agreement and disagreement that uncover trajectories for future empirical and theoretical investigation.

Keywords: Social Norms, Reviews, Reference Group, Cross-disciplinary

Mapping the Social Norms Literature: An Overview of Reviews

Few concepts in the social sciences are as fundamental and cross-disciplinary as the concept of “social norms”, commonly understood as the unwritten rules shared by members of the same group or society (Hecter & Opp, 2001). Their study spans several disciplines, from philosophy (Nichols, 2002), to sociology (Durkheim, 1951), social and moral psychology (Deutsch & Gerard, 1955; Kahneman & Miller, 1986; Miller & Prentice, 1994; Sherif, 1936), law (Posner, 2009), economics (Ostrom, 2014), anthropology (Boyd & Richerson, 1994), gender studies (Butler, 2004), health sciences (A. Berkowitz, 2002; Fleming & Agnew-Brune, 2015; Sheeran et al., 2016), communication studies (Smith, Atkin, Martell, Allen, & Hembroff, 2006), environmental studies (de Groot & Schuitema, 2012), political science (Dalton, 2008), finance (Hong & Kacperczyk, 2009), marketing (Gregory & Munch, 1997) and information technology (Loch, Straub, & Kamel, 2003). The concept of social norms already populated the work of early philosophers, such as Aristotle (Keyt & Miller, 1993), as well as later ones, as, for instance Thomasius (Wickham, 2007), Locke (Grant, 1988), Hume ([1739] 1978) and many thereafter. However, allusions to norms existed in religious doctrines and philosophical knowledge that preceded Aristotle by thousands of years (Norenzayan et al., 2016).

The cross-disciplinary manifestation of the social norms concept has meant the literature on what norms are and how they affect people’s actions has grown in very different directions and today includes several, often conflicting, theories. A few scholars have taken on the task of putting order to it, the result being a series of reviews. Most reviews, however, tend to look at the social norms literature in two disciplines at most, leaving those who intend to engage in cross-disciplinary conversations without a common language and understanding. Many begin with a caveat similar to Young’s (2015): “Given space limitations, it is

impossible to provide a comprehensive account of this literature [the social norms literature]” (p.360).

There also exist a considerable body of theoretical and empirical work that is not formally part of the social norms literature but that has strong conceptual linkages to it. For instance, theoretical and empirical studies in anthropology, sociology, and gender studies looked extensively at theoretical concepts such as, to cite three examples: socialisation (the process through which individuals learn the norms of a given society) (Jensen Arnett, 2015), acculturation (the process through which an individual adapts another culture’s norms) (Ward & Geeraert, 2016), or structural ritualization (the dynamics through which collective practices acquire symbolic significance) (Knottnerus, 1997). Similar concepts are connected to norms, even though they are not explicitly included in the work of those authors who specifically studied social norms dynamics. Because they are a critical component of the grammar of society (Cristina Bicchieri, 2006), social norms are closely interwoven with other important processes (as the three we mentioned), and social and psychological concepts, such as, for example, attitudes (one’s individual preference about something) (Petty & Brinol, 2010), factual beliefs (one’s beliefs about how the physical world functions) (Heiphetz, Spelke, Harris, & Banaji, 2014), or self- and group-efficacy (one’s beliefs about one’s or one’s group capacity to achieve a given goal) (Bandura, Freeman, & Lightsey, 1999). These various constructs contribute to creating a web of meanings that affects how people feel, think, and act. Together, they occupy a large space of investigation in that multi-disciplinary system of theories usually referred to as “social theory” (Merton & Merton, 1968; Seidman, 2016).

While establishing definitive common ground across social norms theories might be impossible, given the disciplinary distance between some of these theories, the opportunity exists to increase awareness of current debates across disciplines and theories by comparing

and contrasting existing reviews, laying the ground for further research on social norms to engage with broader social theory. In this paper, we provide a map of the social norms literature by comparing existing reviews, highlighting areas of agreement and disagreement emerging from these reviews.

Methods

Our larger aim was to look at how different reviews had organised the social norms literature, particularly how reviews of social norms theory had classified, compared, and analysed theories from different disciplines. Following PRISMA guidelines we searched five databases (PubMed, Proquest, Web of Science, Jstor, and Cochrane) for articles that reviewed social norms theories from one or multiple disciplinary perspectives. We included literature that satisfied the following four criteria: 1) papers written in English; 2) papers published in either peer-reviewed or grey literature; 3) papers explicitly mentioning social norms (we excluded, for instance, papers on social *influence* or *gender* norms); and 4) papers that organised the social norms literature by comparing theories from two or more disciplines (we excluded, for instance, review papers that exclusively looked at social norms within sociology). Empirical papers were not included unless their authors included a solid review of different theoretical approaches to social norms (as in the case of Boytsun, Deloof, & Matthyssens, 2011).

Search terms we used included: “social norms”; (“social norms” OR “social norm”) AND (review OR theor* OR model*); “social norm*” AND overview; norm* AND review; norm* AND concept*. Our initial scoping of the literature produced 624 records. To these, we added another 52 from the grey literature, identified through snowballing. After removing duplicates, we had 412 records. We screened these records and shortlisted 57 of them. Both authors assessed the full-text articles for eligibility and rated the records independently, arriving at a list of 30 articles. We then confronted our rankings, resolved disagreements and decided on a case by case basis for the papers that weren’t explicitly marked as reviews,

obtaining the final 22 studies included in this qualitative synthesis. Table 1 below provides an overview of these studies, as an indication of the discipline from which they originated, as well as the aim to which they were written.

Table 1.

Overview of paper included in the analysis.

Author(s)	Year	Title	Discipline	Purpose	Full Reference
Anderson	2000	<i>Beyond homo economicus: New developments in theories of social norms</i>	Philosophy	To uncover how the “normativity of norms plays an indispensable role in accounting for the motive to comply with them.” (p.172)	Anderson, E. (2000). Beyond homo economicus: New developments in theories of social norms. <i>Philosophy & Public Affairs</i> , 29(2), 170-200
Anderson & Dunning	2014	<i>Behavioral Norms: Variants and Their Identification</i>	Social Psychology	“Provide a brief orientation to behavioral science scholarship about norms.” (p. 721)	Anderson, J. E., & Dunning, D. (2014). Behavioral Norms: Variants and Their Identification. <i>Social and Personality Psychology Compass</i> , 8(12), 721-738.
Bell & Cox	2015	<i>Social Norms: Do We Love Norms Too Much?</i>	Health Sciences	“Undertake a review of the literature on social norms to identify many of the large number of proposed social mechanisms by which norms fulfill the function of social control.” (p. 28)	Bell, D. C., & Cox, M. L. (2015). Social Norms: Do We Love Norms Too Much? <i>Journal of Family Theory & Review</i> , 7(1), 28-46.
Bicchieri & Muldoon	2014	<i>Social Norms</i>	Philosophy	Reviews “early theories” and “game-theoretic accounts” of social norms.	Bicchieri, C., & Muldoon, R. (2014). Social Norms. <i>The Stanford Encyclopedia of Philosophy</i> .

	Boytsun, Deloof & Matthyssens	2011	<i>Social Norms, Social Cohesion, and Corporate Governance</i>	Business Management	Reviews the social norms literature to “investigate whether various informal constraints – as manifested in social norms and social cohesion – are related to firm-level corporate governance.” (p.4)	Boytsun, A., Deloof, M., & Matthyssens, P. (2011). Social Norms, Social Cohesion, and Corporate Governance. <i>Corporate Governance: An International Review</i> , 19(1), 41-60.
	Burke & Young	2011	<i>Social Norms</i>	Economics	“Provide an overview of recent work that shows how to incorporate norms into economic models, and how they affect the dynamics of economic adjustment.” (p.313)	Burke, M. A., & Young, P. H. (2011). Social Norms. In J. Benhabib, A. Bisin, & M. O. Jackson (Eds.), <i>Handbook of Social Economics</i> (Vol. 1, pp. 311-338).
	Chung & Rimal	2016	<i>Social Norms: A Review</i>	Communication Science	“Summarize ... of how different disciplines have approached the study of norms.” (p.1)	Chung, A., & Rimal, R. N. (2016). Social Norms: A Review. <i>Review of Communication Research</i> , 4, 1-28.
	Cialdini & Trost	1998	<i>Social Influence: Social norms, conformity and compliance</i>	Social Psychology	Reviews the relevant literature on social norms, conformity and compliance.	Cialdini, R. B., & Trost, M. R. (1998). Social Influence: Social norms, conformity and compliance. In D. T. Gilbert, S. T. Fiske, & G. Lindzey (Eds.), <i>The Handbook of Social Psychology</i> (pp. 151-192). New York, NY, US: McGraw-Hill.
	Dannals & Miller	2017	<i>Social Norms in Organizations</i>	Business Management	“Review work on social norms, with a particular emphasis on organizationally relevant theories and findings, in order to offer insight into directions for future research.” (p.1)	Dannals, J. E., & Miller, D. T. (2017). Social Norms in Organizations. <i>Oxford Research Encyclopedia of Business and Management</i> .
0	Etzioni	2000	<i>Social Norms: Internalization, Persuasion, and History</i>	Legal Studies	To examine “the core concepts of law and socio-economics and the importance of these for the understanding of social norms in legal studies.” (p.1)	Etzioni, A. (2000). Social Norms: Internalization, Persuasion, and History. <i>Law & Society Review</i> , 34(1), 157-178.

1	Gibbs	1965	<i>Norms: The Problem of Definition and Classification</i>	Sociology	To address “three short-comings in the conceptual treatment of norms: (1) a lack of agreement in generic definitions, (2) no adequate classificatory scheme for distinguishing types of norms, and (3) no consistent distinction between attributes of norms that are true by definition and those that are contingent.” (p.586)	Gibbs, J. P. (1965). Norms: The Problem of Definition and Classification. <i>American Journal of Sociology</i> , 70(5), 586-594.
2	Lapinski & Rimal	2005	<i>An Explication of Social Norms</i>	Communication Science	To Identify “factors for consideration in norms-based research to enhance the predictive ability of theoretical models.” (p.127)	Lapinski, M. K., & Rimal, R. N. (2005). An Explication of Social Norms. <i>Communication Theory</i> , 15(2), 127-147.
3	Mackie, Moneti, Shakya, & Denny	2015	<i>What are social norms? How are they measured?</i>	International Development	To offer “an account of what social norms and other social practices are.” (p.4)	Mackie, G., Moneti, F., Shakya, H., & Denny, E. (2015). <i>What are Social Norms? How are They Measured?</i>
4	Mahmoud, Ahmad, Yusoff, & Mustapha	2014	<i>A Review of Norms and Normative Multiagent Systems</i>	Information Technology	“The objectives of this paper are (i) to review and discover the current state of norms architecture and the normative processes, (ii) to propose a norm’s life cycle model based on the current state of norms research, and (iii) to propose potential future work in norms and normative multiagent research.” (p.1)	Mahmoud, M. A., Ahmad, M. S., Yusoff, M. Z. M., & Mustapha, A. (2014). A Review of Norms and Normative Multiagent Systems. <i>The Scientific World Journal</i> , 2014.
5	Morris, Hong, Chiu, & Liu	2015	<i>Normology: Integrating insights about social norms to understand cultural dynamics</i>	Business Management	“Review and integrate norm constructs from different literatures into a general framework.” (p.2)	Morris, M. W., Hong, Y.-y., Chiu, C.-y., & Liu, Z. (2015). Normology: Integrating insights about social norms to understand cultural dynamics. <i>Organizational Behavior and Human Decision Processes</i> , 129, 1-13.
6	Popitz	2017	<i>Social Norms</i>	Legal Studies	Reviews theories on “the emergence, stabilization, weakening, and changing of social norms.” (p.3)	Popitz, H. (2017). Social Norms. <i>Genocide Studies and Prevention: An International Journal</i> , 11(2), 3-12.

7	Reid, Cialdini, & Aiken	2010	<i>Social Norms and Health Behaviour</i>	Health Sciences	Reviews literature on “social norms theory and its application to health behavior change.” (p.265)	Reid, A. E., Cialdini, R. B., & Aiken, L. S. (2010). Social Norms and Health Behaviour. In A. Steptoe (Ed.), <i>Handbook of Behavioral Medicine: Methods and Applications</i> (pp. 263-274). New York, NY: Springer.
8	Siu, Shek, & Law	2012	<i>Prosocial Norms as a Positive Youth Development Construct: A Conceptual Review</i>	Psychology	“To review the nature, origins, and theories of prosocial norms” (p.1)	Siu, A. M. H., Shek, D. T. L., & Law, B. (2012). Prosocial Norms as a Positive Youth Development Construct: A Conceptual Review. <i>The Scientific World Journal</i> , 2012.
9	Sunstein	1996	<i>Social Norms and Social Roles</i>	Legal Studies	“To understand and defend the place of law in norm management.” (p.907)	Sunstein, C. R. (1996). Social Norms and Social Roles. <i>Columbia Law Review</i> , 96(4), 903-968.
0	Vaitla, Taylor, Van Horn, & Cislighi	2017	<i>Social Norms and Girls' Well-Being: Linking Theory and Practice</i>	International Development	To “review the landscape of theory around social norms” (p.5)	Vaitla, B., Taylor, A., Van Horn, J., & Cislighi, B. (2017). <i>Social Norms and Girls' Well-Being: Linking Theory and Practice</i> .
1	Villatoro	2010	<i>A Taxonomy of Social Norms</i>	Artificial Intelligence	“To capture the different definitions and points of view of social norms from the related research areas and adapt them to a multiagent perspective.” (p.2)	Villatoro, D. (2010). A Taxonomy of Social Norms.
2	Young	2015	<i>The Evolution of Social Norms</i>	Economics	To review “how social norms evolve and how norm shifts take place using evolutionary game theory as the framework of analysis.” (p.360)	Young, P. (2015). The Evolution of Social Norms. <i>Annual Review of Economics</i> , 7, 359-387.

From the data, four key themes emerged with relevance to the aim set forth in this paper. In the results section we present these four themes in four questions: 1) What are the definitions of social norms included in the reviews, i.e. what are social norms? 2) What pathways of normative influence are commonly identified in the literature? 3) What types of mechanisms are described in the reviews for how social norms come about, evolve and dissipate? and 4) What categories of agents are identified in the reviews as relevant in the study of social norms? In the next section, we look at results for each of these themes in detail, before discussing their relevance and offering some concluding remarks on future potential trajectories for research on social norms.

Results

What are social norms?

The social norms literature is characterized by a great variety of definitions and theoretical approaches with regard to what constructs are considered ‘social norms.’ Here, we evidence points of consensus and debate across reviews on what social norms are and what they are not.

Consensus and debate on what social norms are not

While little universal consensus exists on what social norms are, much more exists on what they are not. Table 2 below summarizes the areas of implicit and explicit consensus and debate about what social norms are and are not.

Table 2.

Areas of consensus and debate across reviews.

Consensus		Debate
Social norms are not	Social norms are	
<p>Instinctual or biological reactions</p> <p>(Popitz 2017, Bell and Cox 2015, Anderson and Dunning 2014)</p>	<p>‘social’ and shared by some members of a group (all reviews)</p> <p>(Bicchieri and Muldoon 2014, Chung and Rimal 2016, Dannals and Miller 2017, Lapinski and Rimal 2005, Mackie et al. 2015, Vaitla et al. 2017, Anderson and Dunning 2014, Anderson 2000, Bell and Cox 2015, Boytsun, Deloof, and Matthyssens 2011, Burke and Young 2011, Cialdini and Trost 1998, Etzioni 2000, Gibbs 1965, Mahmoud et al. 2014, Morris et al. 2015, Popitz 2017, Young 2015, Reid, Cialdini, and Aiken 2010, Sunstein 1996, Siu, Shek, and Law 2012)</p>	<p>Social norms are individual constructs</p> <p>(Bicchieri and Muldoon 2014, Vaitla et al. 2017, Mackie et al. 2015, Reid, Cialdini, and Aiken 2010, Siu, Shek, and Law 2012, Sunstein 1996)</p>
<p>Personal tastes</p> <p>(Anderson and Dunning 2014, Bell and Cox 2015)</p>	<p>Related to behaviours and inform decision-making (all reviews)</p> <p>(Siu, Shek, and Law 2012, Mackie et al. 2015, Bicchieri and Muldoon 2014, Burke and Young 2011, Villatoro 2010, Sunstein 1996, Popitz 2017, Morris et al. 2015, Gibbs 1965, Mahmoud et al. 2014, Anderson 2000, Boytsun, Deloof, and Matthyssens 2011, Cialdini and Trost 1998, Vaitla et al. 2017, Anderson and Dunning 2014, Chung and Rimal 2016, Reid, Cialdini, and Aiken 2010, Bell and Cox 2015, Dannals and Miller 2017, Lapinski and Rimal 2005, Young 2015, Etzioni 2000)</p>	<p>Social norms are collective constructs</p> <p>(Anderson and Dunning 2014, Cialdini and Trost 1998, Etzioni 2000, Bell and Cox 2015, Anderson 2000, Villatoro 2010, Popitz 2017, Mahmoud et al. 2014, Gibbs 1965, Boytsun, Deloof, and Matthyssens 2011)</p>
<p>Personal habits</p> <p>(Dannals and Miller 2017, Bell and Cox 2015)</p>	<p>Norms can affect the health and well-being of groups of people</p> <p>(Anderson and Dunning 2014, Boytsun, Deloof, and Matthyssens 2011, Mackie et al. 2015, Villatoro 2010, Siu, Shek, and Law 2012, Mahmoud et al. 2014, Lapinski and Rimal 2005, Sunstein 1996, Reid, Cialdini, and Aiken 2010, Vaitla et al. 2017, Dannals and Miller 2017, Burke and Young 2011)</p>	<p>Social norms are a combination of both individual and collective constructs</p> <p>(Burke and Young 2011, Lapinski and Rimal 2005, Morris et al. 2015, Chung and Rimal 2016)</p>
<p>Behavioural regularities in a group per se due to demographic trends, common choice made under very limited options, aggregation of individuals with similar tastes</p> <p>(Anderson and Dunning 2014, Gibbs 1965, Bell and Cox 2015, Dannals and Miller 2017, Etzioni 2000)</p>	<p>Can be prescriptive or proscriptive</p> <p>(Anderson and Dunning 2014, Villatoro 2010, Lapinski and Rimal 2005, Bicchieri and Muldoon 2014)</p>	

Note. In the first column, we summarize theoretical positions that was either explicitly mentioned by reviewers or implied by their definitions of social norms.

Firstly, reviewers tend to agree that social norms are not instinctual or reactive behaviours such as crying while cutting onions, shivering from walking out in the cold or running away from wild dogs barking in a street at night (Bell & Cox, 2015; Popitz, 2017). Social norms are also different from personal tastes (e.g. I like lemon sorbet) (J. E. Anderson & Dunning, 2014; Bell & Cox, 2015). Reviews also specify that social norms are not personal habits, such as putting glasses in their case on the bedside table before going to sleep.

Social norms are not simple behavioural regularities in groups of people either (C. Bicchieri & Muldoon, 2014). Some behavioural regularities can be attributed to norms, while others may be the result of non-normative factors (J. E. Anderson & Dunning, 2014; Bell & Cox, 2015; Dannals & Miller, 2017; Etzioni, 2000). Non-normative factors shaping behavioural regularities include environment factors (a decrease in workers' productivity due to heat waves), policy or technological changes (an increase in the number of people working into older age following improvements in the healthcare system of a country) and scarcity of choice for other reasons (Irish people eating potatoes during the famine that hit Ireland in the nineteenth century). Non-normative regularities can also be attributed to individual characteristics and tastes. People tend to interact with those with whom they share a particular interest – for instance, Japanese cinema enthusiasts will autonomously join a Japanese cinema society. This process, through which people with common taste join together to pursue their interest, leads to similarities within a group that are not due to norms but to personal preferences, a phenomenon commonly referred to as “homophily” (McPherson, Smith-Lovin, & Cook, 2001).

Consensus and debate on what social norms are

Across the reviews, we found three points of consensus on what social norms are. Firstly, most agree that social norms must be ‘social’ in some sense (even though, as discussed

below, they disagree on what counts as ‘social’). Secondly, most reviewers agree that social norms inform action-oriented decision-making in some way (as we detail further in the section “normative pathways of influence”).

Finally, most reviews mention that social norms can affect people’s health and wellbeing. A majority note that social norms can be beneficial to cooperation and to social order (J. E. Anderson & Dunning, 2014; Boytsun, Deloof, & Matthyssens, 2011; Burke & Young, 2011; Cialdini & Trost, 1998; Dannals & Miller, 2017; Etzioni, 2000; Lapinski & Rimal, 2005; Mahmoud, Ahmad, Yusoff, & Mustapha, 2014; Siu, Shek, & Law, 2012; Villatoro, 2010; Young, 2015). However, although social norms can help people live together, focusing exclusively on their positive functions limits the potential of social norms theory to explain the persistence of harmful practices and behaviours (Mackie, Moneti, Shakya, & Denny, 2015; Mahmoud et al., 2014; Vaitla, Taylor, Van Horn, & Cislighi, 2017). A smaller number of reviews explicitly discuss social norms that are harmful. These reviews examine norms that: 1) encourage a variety of unhealthy behaviours, such as drinking alcohol, smoking cigarettes, or sharing needles (Bell & Cox, 2015; Dannals & Miller, 2017; Reid, Cialdini, & Aiken, 2010); 2) result in harmful practices such as child marriage (Vaitla, Taylor, Van Horn, et al., 2017) or female genital mutilation/cutting (Mackie et al., 2015); or 3) sustain discriminatory practices such as feuding norms (Young, 2015); norms authorizing violence in genocides (Popitz, 2017); and caste norms (Sunstein, 1996). Health and development practitioners have been mostly interested in using social norms theory to investigate why people comply with harmful health-related practices and what can be done to change their actions. Sociologists and moral psychologists have instead offered a large body of work on the benefits and evolutionary advantages of prosocial norms. We find it important to look at both positive and negative effects of complying with norms. Discarding their positive effect might make us mindless of the critical role that social norms play in human

societies; health interventions shouldn't aim to "remove" social norms, in the attempt to make people more independent of others. That is not only impossible but (as the evidence above suggests) it is also harmful to people's wellbeing. At the same time, norms can be harmful; studying why people comply with these norms and how can they be changed can equip policy-makers with important strategies to improve people's health and well-being.

Despite the points of consensus mentioned above, profound theoretical disagreement exists on what norms are. As we mentioned, reviewers disagree on what it means for norms to be 'social'. To some reviewers, norms are social because they stem from human interactions (Burke & Young, 2011; Chung & Rimal, 2016; Cialdini & Trost, 1998; Lapinski & Rimal, 2005; Morris, Hong, Chiu, & Liu, 2015; Vaitla, Taylor, Van Horn, et al., 2017; Villatoro, 2010; Young, 2015), while other reviewers define them as social because they are expectations about other people's beliefs and behaviours (C. Bicchieri & Muldoon, 2014; Mackie et al., 2015), because they hold social meaning (Chung & Rimal, 2016; Morris et al., 2015; Popitz, 2017; Sunstein, 1996) or because they allow the functioning of the social structure (Popitz, 2017; Sunstein, 1996). We found further sources of disagreement among the reviews. One major distinction that emerged in our analysis is whether social norms are an individual or a collective construct.

Social norms as individual and collective constructs. As individual constructs, social norms are understood to be psychological states of individuals, such as beliefs or emotions. As collective constructs, they are understood to be conditions or features of social groups or structures. In Table 3, we grouped the definitions of social norms provided across the literature that fall into either conceptual category (individual or collective constructs).

Table 3.

Social norm as individual and collective constructs.

Level	Construct (Social Norms as...)	Definition	Reviewed by
Individual	Beliefs (perceptions or expectations)	what an individual holds true about others in the social group and/or about what others in the social group do or believe	(Chung & Rimal, 2016; Cialdini & Trost, 1998; Dannals & Miller, 2017; Lapinski & Rimal, 2005; Reid, Cialdini, & Aiken, 2010; Vaitla, Taylor, Van Horn, & Cislighi, 2017; Villatoro, 2010)
	Feelings or emotions	positive or negative emotional reactions to the idea of an action	(Anderson & Dunning, 2014; Gibbs, 1965; Siu, Shek, & Law, 2012; Vaitla et al., 2017)
	Interpretations of collective rules	an individual's understanding of a societal or collective rule / what a collective rule means to an individual	(Lapinski & Rimal, 2005; Morris, Hong, Chiu, & Liu, 2015)
	A kind of motivation	a reason for acting	(Burke & Young, 2011)
Collective	Social phenomenon of a group	a fact or situation that can be observed in a social group, or community	(Chung & Rimal, 2016; Lapinski & Rimal, 2005; Mahmoud, Ahmad, Yusoff, & Mustapha, 2014)
	Behavioural regularities	a pattern of behaviour that can be observed at the level of a population	(Anderson & Dunning, 2014; Burke & Young, 2011; Chung & Rimal, 2016; Dannals & Miller, 2017; Gibbs, 1965; Mahmoud et al., 2014; Young, 2015)
	Collective or group beliefs	beliefs ascribed to a social group, community or collective of individuals	(Anderson & Dunning, 2014; Gibbs, 1965; Mahmoud et al., 2014; Morris et al., 2015; Vaitla et al., 2017)
	Sanctions	Social reactions punishing norm violations or rewarding conformity to norms.	(Anderson & Dunning, 2014; Gibbs, 1965; Mahmoud et al., 2014; Morris et al., 2015; Popitz, 2017; Villatoro, 2010)

Rules, standards, guides	Statements that assign a value to an action or way of behaving (e.g., obligation, permissibility, appropriateness, prohibition) that are recognized in a society or social group.	(Anderson & Dunning, 2014; Boytsun, Deloof, & Matthysens, 2011; Chung & Rimal, 2016; Cialdini & Trost, 1998; Gibbs, 1965; Lapinski & Rimal, 2005; Mahmoud et al., 2014; Reid et al., 2010; Siu et al., 2012; Vaitla et al., 2017; Villatoro, 2010)
Equilibrium	An existing state in a population where no one individual or group is motivated to change the situation	(Bicchieri & Muldoon, 2014; Burke & Young, 2011; Villatoro, 2010; Young, 2015)

Although many reviewers recognize that different definitions exist in the literature, some privilege one type of construct in their definition. Specifically, six reviews focus mainly on theories that define social norms as individual constructs (Bicchieri & Muldoon, 2014; Mackie et al., 2015; Reid et al., 2010; Siu et al., 2012; Sunstein, 1996; Vaitla, Taylor, Van Horn, et al., 2017). Most theories of norms as individual constructs define them as the beliefs of an individual of what is common (what people do in situation X) and approved (the extent to which people approve of those who do Y in situation X) in a given group or society. Seminal here is the work by Cialdini and colleagues (Cialdini, Reno, & Kallgren, 1990), who call beliefs of the first type *descriptive norms*, and beliefs of the second type *injunctive norms*. A few reviewers mention emotions as part of their conception of social norms. Most refer to feelings in passing, but one review (Siu et al., 2012), explicitly defines prosocial norms as prosocial feelings.

By contrast, ten reviews privilege theories of social norms as collective constructs, external (as opposed to internal) forces affecting people's actions. These constructs include, for instance, shared or institutionalised community rules that are part of the cultural ethos of a group (such as family structure as monogamic or polygamic), or behavioural patterns observed within groups and societies (such as, for instance, voter turnout) (See Table 3). (E. Anderson, 2000; J. E. Anderson & Dunning, 2014; Bell & Cox, 2015; Boytsun et al., 2011;

Cialdini & Trost, 1998; Etzioni, 2000; Gibbs, 1965; Mahmoud et al., 2014; Popitz, 2017; Villatoro, 2010). Finally, six reviewers include both individual and collective constructs of social norms in their analysis (Burke & Young, 2011; Chung & Rimal, 2016; Dannals & Miller, 2017; Lapinski & Rimal, 2005; Morris et al., 2015; Young, 2015).

It comes as no surprise that the social norms literature includes theories that look at norms as either individual or collective constructs, or that strive to integrate the two. Both approaches have their own benefits. Understanding social norms as individual constructs is more appropriate to the study of the psychological mechanisms underlying normative phenomena. We found, for instance, greater advantages of using a norm as individual constructs in public health research and action, as well as in targeted behavioural change interventions in international development. Approaches that look at social norms as individuals' beliefs were widely used to design effective programmatic and measurement strategies for health promotion (Cislaghi & Heise, 2018b). On the other hand, theories that define social norms as collective constructs will be helpful to researchers investigating how norms operate and diffuse through time at population level, as it might happen, for instance, in historical and anthropological studies. Integrating the two approaches might finally be helpful to uncover their dialectically reciprocal influence, as some reviewers themselves suggested (Burke & Young, 2011; Morris et al., 2015; Young, 2015). Researchers interested in conducting cross-disciplinary work on social norms, for instance studying how people's normative beliefs are embodied and influenced by formal institutions (such as the education system or the family) will likely benefit from approaching both streams of thought on what social norms are. Research in international development, for instance, has often focused on the mechanisms through which social norms influence community practices and could be complemented by the understanding of how social norms are embedded in national economic and political structures, and how they interact with broader processes of change.

What pathways of normative influence are commonly identified in the literature?

Across the reviews we found further disagreement, mostly reflecting disciplinary boundaries, on the relation between norms and behaviour. This disagreement specifically related to: 1) whether reviewers consider one or multiple pathways of influence from norm to action, and 2) whether they understand norms as ‘direct’ or ‘indirect’ (see below) sources of influence.

Reviews that consider one normative pathway include, for example, the suggestion that norm compliance is exclusively motivated by the presence or anticipation of positive or negative sanctions (Villatoro, 2010) or by the simultaneous presence of both empirical and normative expectations (two concepts not too conceptually distant from, respectively, descriptive and injunctive norms) (Bicchieri and Muldoon 2014). One implication of this position is that without the required sanctions or beliefs in the case of Bicchieri and Muldoon (2014), the reviewers assume that compliance will not follow from the norm. Other reviewers, instead, suggest multiple pathways to compliance. Here, they recognize that norms can translate into action in a variety of situations and under different conditions. Some look at descriptive and injunctive norms as two pathways of influence: descriptive norms offering information people can use to orient their actions and injunctive norms putting pressure onto people to meet other people’s expectations (J. E. Anderson & Dunning, 2014; Lapinski & Rimal, 2005; Mahmoud et al., 2014; Morris et al., 2015; Reid et al., 2010). Others investigate an even wider array of pathways of normative influence. One review (Bell & Cox, 2015), for example, presented four: 1) Uncertainty (e.g. people look at what others do when they are unsure about what is the best course of action); 2) Identity (e.g. people comply with social norms to express membership in a group); 3) Reward (e.g. people anticipate rewards for compliance); and 4) Enforcement (e.g. the group forces individuals into compliance).

The second main difference in how reviews explain how norms affect behaviour is whether they understood social norms as ‘direct’ or ‘indirect’ sources of influence. Norms are

direct sources of influence when they are alone sufficient to direct behaviour (J. E. Anderson & Dunning, 2014; Bell & Cox, 2015; Bicchieri & Muldoon, 2014; Burke & Young, 2011; Dannals & Miller, 2017; Gibbs, 1965; Goldstein & Mortensen, 2012; Villatoro, 2010; Young, 2015). As an example, think of a person who joins a bus line simply because he or she knows that others do so. Changes in norms that exert direct influence should, logically, result in a change in people's behaviour: if people stop queuing for the bus, latecomers will not queue either. By contrast, when a norm is an indirect source of influence, it intersects with one or multiple intermediary factors to cause that action (Boytsun et al., 2011; Chung & Rimal, 2016; Lapinski & Rimal, 2005; Morris et al., 2015; Reid et al., 2010; Siu et al., 2012; Sunstein, 1996). For example, one review (Chung and Rimal 2016) suggests that norms lead to an intermediary element, a behavioural intention, that is mediated by various behavioural, individual and contextual factors that can either strengthen or reduce the influence of a norm. These factors include, for instance, the perceived cost of acting in accordance with the norm or the time constraints the individual faces in making a choice about how to behave. When a norm exerts indirect influence, changing norms may not be sufficient to change behaviour, as the ecology of factors sustaining that behaviour might still hold.

In addition to the two differences above, we also found that reviewers disagree on the specific pathways that lead from norm to action. Three pathways in particular emerged from our analysis. According to these, norms affect behaviour by: 1) providing value-neutral information; 2) creating external obligations; and 3) becoming internal obligations.

Norms providing value-neutral information

Some social norms provide neutral information about what action is common, indicating practical or efficient courses of action for what the individual had set out to do (e.g., navigate a new city, use public transportation, feed oneself or coordinate with others). Social norms that provide information are often referred to as either descriptive norms

(Chung & Rimal, 2016; Cialdini & Trost, 1998; Lapinski & Rimal, 2005; Reid et al., 2010), empirical expectations (Bicchieri & Muldoon, 2014) or collective expectations (Gibbs, 1965).

Norms motivate actions by providing information in situations where:

- 1) people must choose between different value-neutral courses of action and do not have a strong preference for either alternative (e.g. since everyone is walking on the left side of the sidewalk, I will also walk on the left side) (J. E. Anderson & Dunning, 2014; Bell & Cox, 2015; Cialdini & Trost, 1998);
- 2) people use benchmarks or points of reference as heuristic standards of what they should achieve in life and when (e.g. I aspire to have my first child by thirty because that is when most people normally have their first child in my social group) (Young, 2015);
- 3) people try to figure out the most efficient courses of action to achieve a concrete goal (e.g. if everyone else drives to work, it must be the most effective way of getting there) (Bell & Cox, 2015; Burke & Young, 2011; Chung & Rimal, 2016; Cialdini & Trost, 1998; Dannals & Miller, 2017; Reid et al., 2010); and
- 4) people need a convention to allow their interaction (e.g. everyone speaks English at this meeting, so I will speak English too) (Burke & Young, 2011; Dannals & Miller, 2017; Villatoro, 2010; Young, 2015).

When they provide information, norms do not necessarily affect people's attitudes, as opposed to when they create external obligations.

Norms creating external obligations.

In addition to providing neutral information, social norms can exert pressure on individuals to act in a specific way (Mahmoud et al., 2014; Sunstein, 1996; Vaitla, Taylor, Van Horn, et al., 2017; Villatoro, 2010). When norms follow this pathway to action, people consider the possible positive or negative consequences that will follow their compliance or lack of it (J.

E. Anderson & Dunning, 2014; Bell & Cox, 2015; Chung & Rimal, 2016; Morris et al., 2015; Reid et al., 2010; Sunstein, 1996; Young, 2015). These consequences can be economic (e.g. having to pay a fee for violating the norm) (E. Anderson, 2000; Mahmoud et al., 2014; Vaitla, Taylor, Van Horn, et al., 2017; Villatoro, 2010); reputational (e.g. being ostracised by other family members after getting divorced, because they consider divorce unacceptable) (Bell & Cox, 2015; Bicchieri & Muldoon, 2014; Mackie et al., 2015; Morris et al., 2015; Villatoro, 2010); and emotional (e.g. feeling shame when arriving underdressed at a party) (Etzioni, 2000; Mackie et al., 2015; Morris et al., 2015). External influence can take many forms, including:

- 1) role modelling (e.g. celebrities in the media marketing compliance with a given norm as a sign of fashionable attractiveness) (Cialdini & Trost, 1998; Lapinski & Rimal, 2005; Siu et al., 2012; Vaitla, Taylor, Van Horn, et al., 2017);
- 2) social pressure (e.g. adolescent peers pressuring a friend to smoke), subtle encouragement (e.g. parents complementing their sons for being brave and their daughters for being pretty) and active enforcement (e.g. teachers or religious leaders using violence to punish norm violators) that occur before or after one acts in accordance to or in violation of a norm (J. E. Anderson & Dunning, 2014; Mahmoud et al., 2014; Morris et al., 2015; Villatoro, 2010);
- 3) anticipation of (as opposed to actual) rewards and penalties, including the anticipation of social approval or disapproval (e.g., anticipation of gossip or the desire to be seen as a good marriage partner) and being accepted in or excluded from a given social group (e.g. the group of the cool kids at school or the intellectuals in a village) (Bell & Cox, 2015; Cialdini & Trost, 1998; Dannals & Miller, 2017; Mahmoud et al., 2014; Morris et al., 2015; Vaitla, Taylor, Van Horn, et al., 2017). Sometimes, the threat or anticipation of punishment can be enough

(e.g. fear of violence for violating a norm) (Anderson & Dunning, 2014; Bell & Cox, 2015).

Norms that create external obligations do not need to be aligned with individuals' attitudes to motivate compliance. The term *pluralistic ignorance* refers to cases in which most people disagree with a norm but comply with it because they do not know the extent to which others disapprove of it too. Similar discrepancies between a group's norm and group members' individual attitudes have raised the interest of those who looked at new avenues for harm reduction; they suggest that interventions could uncover pluralistic ignorance by correcting people's misperceptions of what others approve of, eventually reducing compliance with the harmful practice sustained by the norm (J. E. Anderson & Dunning, 2014; Dannals & Miller, 2017; Lapinski & Rimal, 2005; Mackie et al., 2015; Reid et al., 2010). However, when these interventions are not well-designed, they can inadvertently have negative consequences. Take, for instance, interventions that intend to increase awareness of a given harmful practice in the general population. With the purpose of shocking the audience, these interventions might unwittingly publicise the spread of a harmful norm (e.g. 80% first-year students experience sexual violence in University campuses), ultimately generating a "boomerang effect" that would increase the very harmful behaviour that these interventions are trying to reduce (Dannals and Miller 2017).

Norms becoming internal obligations.

Compliance with social norms can be motivated by internal factors and preferences (E. Anderson, 2000; Etzioni, 2000; Siu et al., 2012). Here, people recognize the validity of the norm in and of itself, and comply with it because of the value they attach to it, rather than because they anticipate consequences for complying with it or not (Etzioni, 2000). The process through which people assimilate social norms to the point that they become internally driven motivations is often referred to as *internalization* (Bell & Cox, 2015; Bicchieri &

Muldoon, 2014; Dannals & Miller, 2017; Etzioni, 2000; Morris et al., 2015). When they are internalized, social norms shape an individual's beliefs about how they should act (E. Anderson, 2000). On this pathway, people follow the norm from then on, even when others around them do not, which is why some reviewers call these norms *personal* while others go so far as to call them *moral*. Several reviews disagree that these moral and personal norms can be considered social norms, precisely because of their internal character (J. E. Anderson & Dunning, 2014; Bicchieri & Muldoon, 2014; Dannals & Miller, 2017; Mackie et al., 2015; Vaitla, Taylor, Van Horn, et al., 2017). People comply with a norm on this pathway because:

1. They believe it embodies their values (E. Anderson, 2000; Bell & Cox, 2015; Chung & Rimal, 2016);
2. Compliance contributes to their self-understanding or identity (E. Anderson, 2000; Bell & Cox, 2015; Cialdini & Trost, 1998; Lapinski & Rimal, 2005)
3. Lack of alternatives impinges people's capacity to envision change, inducing them to comply willingly with the norm because they view it as the only option available to them (E. Anderson, 2000; Bell & Cox, 2015; Chung & Rimal, 2016; Dannals & Miller, 2017; Etzioni, 2000; Lapinski & Rimal, 2005; Mahmoud et al., 2014; Morris et al., 2015; Siu et al., 2012), e.g. women who wear high heels at work because they have never seen working women dressed differently (an example included in Dannals and Miller, 2017) .

Even though some reviewers divide these three pathways (providing value-neutral information, creating external obligations and becoming internal obligations) into separate categories, in practice we suggest they are intersecting and non-exclusive. Even though their separation (as the one we offered) can be helpful for conceptual clarity, in practice these conceptions overlap and can be interlinked. For instance, norms can act on individuals as both external pressures and as shaping intrinsic motivations (Bell & Cox, 2015; Dannals &

Miller, 2017; Etzioni, 2000; Mahmoud et al., 2014; Morris et al., 2015). Etzioni (2000) calls for a view that combines stances, suggesting that norms are stronger when they exert both internal and external influences. Boytsun and colleagues (2011) echo this idea, suggesting that norms might be stronger when more community members agree with the norm. Social norms theory would benefit from future research on these three distinct pathways, particularly on the ways in which norms across these three pathways vary in strength. Future research trajectories that aim to understand what influences the strength of social norms could build on earlier theoretical work carried out by Jackson (1966) on the Return Potential Model (largely absent from the reviews). The model suggests that compliance with a norm doesn't necessarily result in approval: overcompliance might generate return to disapproval of over-compliers. Take the following example. A norm might exist that a worker should stay at the office until 5pm, so that non-compliers who leave at 3pm are frowned upon. However, over-compliers (who, say, work until 8pm) might also be frowned upon as they threaten the current equilibrium, pushing towards a normative model that might be difficult for other actors to follow (Jackson, 1966). As researchers try to understand what influences patterns of norms emergence, change and maintenance, they might find inspiration in Jackson's model as an example of how other group-related factors (such as the extent to which the group cares about the norm) will influence its strength.

What types of mechanisms are described in the reviews for how social norms come about, evolve and dissipate?

The life cycle of social norms

Three stages of a norm's life cycle surface as common themes across the reviews: 1) emergence: when a norm comes into being; 2) maintenance: when an established norm continues to influence behaviour and practices over time; and 3) change and disappearance: when a norm ceases to exist or to exert influence. While we found some concordance on

these three themes, we found debates and unanswered questions with regard to the mechanisms by which social norms move across these three stages.

We found diverging language and understanding of the key stages in the life cycle of a social norm. Reviewers describe the key stages in different ways and break them down into different sub-stages. In Table 4, we report the different conceptions included within these three categories, before discussing the points of consensus and divergence about these three life stages in greater detail.

Table 4.

Stages in the life cycle of a norm.

Broad Stage	Cluster	Sub-stage	Description
Emergence	The moment when a norm is instigated, when it comes into being as a candidate for a new norm	Creation	“The process of presenting a new norm in a normative system is called norm creation.” (Mahmoud, Ahmad, Yusoff, & Mustapha, 2014)
		Norm innovation	When individuals “create new norms without any external interference.” (Mahmoud et al., 2014). Also mentioned but not defined by (Anderson & Dunning, 2014; Bell & Cox, 2015; Bicchieri & Muldoon, 2014; Lapinski & Rimal, 2005)
		Norm ideation	“Ideation is how an idea of behavior becomes a norm in the first place and filtering which ideas are accepted and rejected.” (Mahmoud et al., 2014)
		Norm acquisition	“how norms are acquired” (Anderson & Dunning, 2014) Also mentioned by (Dannals & Miller, 2017; Etzioni, 2000; Morris, Hong, Chiu, & Liu, 2015)
	Process by which a norm starts to become recognized and accepted as a norm	Norm assimilation	“norms assimilation is the process of joining and abiding by the rules and norms of a social group.”

	(Mahmoud et al., 2014)
Norm acceptance	<p>“Norm acceptance is the process of conflict resolution where external enforcements on the agent vie against its internal desire.” (Mahmoud et al., 2014)</p>
Norm learning and social learning	<p>“Norm learning is the ability of learning from others and it is an active technique to complement and support the learning of individual.” (Mahmoud et al., 2014)</p> <p>“individuals learn social norms via social learning whereby they observe others and enact behavior that others seem to approve of or endorse, while avoiding behavior that they see results in punishment.” (Dannals & Miller, 2017).</p> <p>“When an actor observes a customary action, the actor tries to make sense of this pattern. One inference that the actor might make is to infer that the action is customary because the action has provided benefits to others. (...) In a social learning process, it is not rewards from the group after performing the action that motivate the actor but the actor’s belief that the action will be rewarding in itself because other members of the group have previously been so rewarded.” (Bell & Cox, 2015)</p> <p>“process in which women gain information about the benefits and costs from the experiences of other women in their social network.” (Young, 2015)</p> <p>Can also involve “ritualized infant-caregiver interaction and mimicry.” (Anderson & Dunning, 2014), and mentioned by (Morris et al., 2015; Siu, Shek, & Law, 2012).</p>
Norm adoption	<p>When a norm is adopted by a significant number of people in a population. (Anderson & Dunning, 2014; Mahmoud et al., 2014; Siu et</p>

			al., 2012)
	How norms emerge throughout a population or a group	Spreading and transmission	“The process of distributing norms in a society or social group” (Mahmoud et al., 2014). Also in (Anderson & Dunning, 2014; Lapinski & Rimal, 2005; Morris et al., 2015; Siu et al., 2012)
		Diffusion	How innovations are disseminated from a few individuals to a greater number of individuals in a population. (Anderson & Dunning, 2014; Lapinski & Rimal, 2005; Morris et al., 2015)
Maintenance	How norms become more established in a society or in individuals	Stabilization and crystallization	The process by which norms become more stable in a culture. (Morris et al., 2015; Popitz, 2017)
		Institutionalization	The process by which norms become codified or encoded in institutions as formal rules in society. (Bell & Cox, 2015; Morris et al., 2015; Popitz, 2017)
		Internalization	<p>“A classic theory is that people follow the social patterns that they have internalized as personal norms. (...) this means that objective social structures—regularities, sanctions and institutions—affect judgment and behavior via the personal norms that they inculcate.” (Morris et al., 2015)</p> <p>“Internalization is an element of socialization whereby the actor learns to follow rules of behavior in situations that arouse impulses to transgress and there is no external surveillance or sanctions.” (Etzioni, 2000)</p> <p>“when a norm in a society is widely accepted and becomes a routine task for the followers.” (Mahmoud et al., 2014)</p> <p>“individuals internalize these persistent social pressures from external forces to internal</p>

preferences.” (Dannals & Miller, 2017)

Group norms can be “internalized by the individual as accurate information”, “internalizing the values associated with a particular group and identifying with the attitudes and behaviors of other members of the group.” (Chung & Rimal, 2016). Also mentioned by (Anderson & Dunning, 2014; Lapinski & Rimal, 2005; Siu et al., 2012)

	Norms already exist but are only relevant in certain situations	Norm activation	Cognitive process by which an intention to act in a certain way becomes triggered in an individual’s mind, influencing them to act in accordance with the norm (Chung & Rimal, 2016; Morris et al., 2015; Siu et al., 2012).
		Norm detection	“Norms detection is the process of updating an agent’s norms based on discovering a society’s potential norms through some detection mechanisms which rely on observing or interacting with other agents to infer the potential norms.” (Mahmoud et al., 2014)
	Long-term persistence of the norm	Cultural continuity and stability	The extent to which norms persist across generations and are not altered (Morris et al., 2015).
Change	Norms change from their original/prior form	Creative mutation	Part of cultural dynamics whereby systems of norms or values are both reproduced and altered. (Morris et al., 2015)
	Norms become more important	Norm bandwagons and cascades	<p>“Norm bandwagons occur when small shifts lead to large ones, as people join the “bandwagon”; norm cascades occur when there are rapid shifts in norms.” (Sunstein, 1996)</p> <p>“includes wide norm acceptance specified by imitation, which attempts to socialize others to become followers.” (Mahmoud et al., 2014)</p>

Also in (Morris et al., 2015)

Norms become less important	Decrease in validity or diminish	The norm becomes less important to the majority of people, one can observe “the decrease in validity of a norm” (Popitz, 2017).
Norms disappear	Norm removal	“Norm removal is the ability of removing an obsolete norm and replacing it with a new norm which occurs when there is a conflict between the domain’s new norm and an internalized obsolete norm of an agent.” (Mahmoud et al., 2014)

Emergence. Fifteen reviewers discuss theories of norm emergence, examining why and how an action or social practice becomes accepted as a norm in some populations (E. Anderson, 2000; J. E. Anderson & Dunning, 2014; Bell & Cox, 2015; Bicchieri & Muldoon, 2014; Burke & Young, 2011; Cialdini & Trost, 1998; Dannals & Miller, 2017; Etzioni, 2000; Mahmoud et al., 2014; Morris et al., 2015; Popitz, 2017; Siu et al., 2012; Vaitla, Taylor, Van Horn, et al., 2017; Villatoro, 2010; Young, 2015). A new norm can involve an action that was previously carried out by some people in the community but that was not considered a norm or a radically new way of acting and doing. Reviewers who discuss norm emergence conceptualize the transition from one sub-stage to the next in different ways. Some theorise that behaviour changes first, and norms follow (Bell & Cox, 2015; Morris et al., 2015; Popitz, 2017). For instance, when smoking in restaurants and bars was first outlawed in Norway, people stopped smoking in public spaces before they began to believe that smoking in public was socially unacceptable. Other reviewers suggest instead the opposite: that norms change first, and behaviours follow, as it happens, for instance, when a certain ‘tipping point’ is reached (see below, in the change and dissipation section) (Bell & Cox, 2015; Bicchieri & Muldoon, 2014; Mahmoud et al., 2014). For example, there might be a norm that people should shake hands when they meet. At a time of an infectious epidemic, people might begin

to prefer not doing so (as it would spread germs) and yet shake hands for fear of what others might say. These people would stop shaking hands only when they know that the norm has changed, that it is now acceptable not to shake hands¹. Finally, reviewers also consider the possibility of a process of mutual influence between the two levels: the more regular a behaviour becomes in a population, the more individuals will believe there is a norm, and the more individuals believe that a norm exists, the more they will comply with it. As a result, the behaviour becomes more common in the population (Burke & Young, 2011; Villatoro, 2010; Young, 2015). This last interpretation seems to us the most reasonable one. The norm might change first in a given core group of people in a society (e.g. university students believing buying plastic bottles is inappropriate) and then be followed by a new behaviour in that group (e.g. university students only buying glass bottles). Then, as their new actions become public, other might adopt them too (e.g. students' families and friends buying plastic bottles), eventually bringing about further normative change in the larger society.

Maintenance. Seven reviewers include a discussion of norm maintenance and continuity: why and how norms tend to persist for long periods of time, how they persist after losing their original relevance or significance (Bicchieri & Muldoon, 2014; Cialdini & Trost, 1998; Young, 2015) and what forces underlie these phenomena. Some discuss how norms persist because new group members learn and adopt them (Dannals & Miller, 2017). Others call attention to the fact that norms are transmitted over generations, and thus can persist even when the original group of norm followers has disappeared (Bicchieri & Muldoon, 2014; Cialdini & Trost, 1998; Etzioni, 2000; Morris et al., 2015). Finally, another set of reviews (Boytsun et al., 2011; Dannals & Miller, 2017; Morris et al., 2015) emphasize norms' relation

¹ We are grateful for this example to Molly Melching, of the NGO Tostan, who uses this example in their training programme, building on their observations during the recent Ebola epidemics in West Africa.

to culture as the way to understand norm persistence. We thus note the recognition across reviews that norms persist and that norm continuity is a key feature of norms' life cycle, although much of the literature does not address the processes and forces sustaining norms.

Change and dissipation. Reviews that examine when norms change tend to focus specifically on when norms shift naturally and quickly after long periods of stability. Three overlapping concepts are used to describe the process of quick normative change after long periods of persistence: 1) tipping point, the specific moment when enough people are holding attitudes against the existing norm and are ready to change; 2) norm cascades, the process of norm change after a tipping point has been reached as more and more people start imitating those who are changing their behaviour (enough people privately accept same sex marriage that it becomes widely accepted in society) (J. E. Anderson & Dunning, 2014; Burke & Young, 2011; Morris et al., 2015; Sunstein, 1996; Young, 2015); and 3) punctuated equilibria, an overall description of the evolution of norms, in which a norm persists for a long period of time until it suddenly changes or disappears once it reaches a tipping point followed by a norm cascade (Burke & Young, 2011; Young, 2015). We found only two reviewers who discuss how norms can change while not completely disappearing: norms can be altered (Morris et al., 2015) or weakened (Popitz, 2017), suggesting the need for further enquiry into gradual norm change.

We suggest that these three life stages have potential conceptual overlaps. Norm *change* and norm *emergence*, for instance, are tightly linked: an emerging norm can potentially interfere with one that existed before, changing the latter. Similarly, an emerging norm can strengthen an existing one, facilitating the maintenance of this latter norm.

Mechanisms underlying norm dynamics

In addition to looking at these three life stages, some reviews discuss how norms move across stages, identifying several mechanisms that can impel norms to emerge, evolve and dissipate.

We mention five in particular: 1) Correction of misperception; 2) Structural changes; 3) Legal reforms; 4) Role models; and 5) Power dynamics.

Correction of misperceptions. Several reviewers suggest that people's normative beliefs can change as they receive accurate information about what others in their group do and approve of (Chung & Rimal, 2016; Lapinski & Rimal, 2005; Morris et al., 2015), specifically when the group's beliefs are wrong as they overestimate people who engage in and approve of a given harmful norm. This strategy, often referred to as 'correcting misperceptions,' was historically adopted by health interventions that aimed to change harmful social norms by providing accurate information on what others in a given group did and approved of (J. E. Anderson & Dunning, 2014; Bell & Cox, 2015; Bicchieri & Muldoon, 2014; Dannals & Miller, 2017; Lapinski & Rimal, 2005; Mackie et al., 2015; Mahmoud et al., 2014; Reid et al., 2010; Vaitla, Taylor, Van Horn, et al., 2017). The reviews discussed different sources of information, including: interpersonal communication (Chung & Rimal, 2016; Cialdini & Trost, 1998; Vaitla, Taylor, Van Horn, et al., 2017), mass media (Chung & Rimal, 2016; Lapinski & Rimal, 2005; Reid et al., 2010), informational campaigns (Dannals & Miller, 2017; Reid et al., 2010), small focus group interventions (Dannals & Miller, 2017), observation of others (Chung & Rimal, 2016; Dannals & Miller, 2017), and online platforms and video games (Siu et al., 2012). Correcting misperceptions was, by far, the most commonly cited mechanism across the reviews. Two reviews also mentioned that strategies that increase the salience of positive norm can also work when there is no misperception to be corrected; that is, when people targeted by the intervention do not have any ideas of what others in their group are doing and approving of in relation to a given practice. While studying this mechanism can yield important insights into how norms change, it needs to be integrated with other mechanisms explaining, for instance, how internalized norms can change.

Structural changes. Five reviews explore how variations in the social structure can influence the life trajectory of a norm. Background conditions, whether ecological (Morris et al., 2015), historical (Etzioni, 2000) or economic (Burke & Young, 2011), can affect the existence and evolution of norms and normative systems. Morris and colleagues (2015) find that perceived external threats (such as natural disasters, epidemics or war) can increase the resilience of a norm, as well as increasing people's readiness to sanction deviant individuals. Another review (Etzioni, 2000) argues that historical processes can affect what practices and values become normative at a given time in a given society, to the extent that they give rise to "traditional" institutions and practices that demand compliance by virtue of their (real or perceived) traditional nature (Etzioni, 2000). Finally, changes in broader economic structures and institutions can influence people's actions (Vaitla, Taylor, Van Horn, et al., 2017) by changing the economic implications of violating or complying with a norm; that is, by altering the costs and benefits of compliance (Burke & Young, 2011) or more generally by affecting the nature of social interactions and hierarchies. One reviewer (Young, 2015), for instance, discusses how changes in both economic and social structures were necessary for feuding norms to dissipate. References to technological changes were absent from the reviewed literature, indicating important opportunities for future research.

Legal reforms. Two reviews suggest that legal reforms change social norms because they change what people believe to be approved or valued in their society (partly conflating this mechanism with the one on "changes in information") (Morris et al., 2015; Sunstein, 1996). However, as Sunstein (1996) notes, the coercive function of a law can act as an enforcement mechanism shaping new external obligations. Legal reforms are not always effective in changing the norm: social norms and legal rules are not always aligned and can, in fact, have contradictory effects (Mackie et al., 2015) or act as substitutes for one another (Boytsun et al., 2011; Etzioni, 2000). At times, changing legal rules might not be effective in

changing social norms (Boytun et al., 2011), as they might, for instance, force practices to go underground, in effect strengthening them by making them undetectable at the eyes of those would disapprove of it (which would eventually contribute to changing the norm). Scope exists for future research to explore under what circumstances legal reforms do change social norms, including in states that do not have strong control over their territory.

Role models. Nine reviewers highlight the role that influential individuals can play in inducing others to change their behaviour, referring to them as leaders (Mahmoud et al., 2014), norm entrepreneurs (Mahmoud et al., 2014; Sunstein, 1996; Young, 2015), opinion leaders (Burke & Young, 2011; Lapinski & Rimal, 2005; Mackie et al., 2015), social referents (Dannals & Miller, 2017; Mackie et al., 2015) or role models (Siu et al., 2012). These individuals exert social influence and persuasion through emotions, social attachment, personal connections, institutionally or socially-conferred authority, or ease of personal identification. Examples of potentially influential individuals include authority figures such as religious leaders or village elders (Etzioni, 2000; Mackie et al., 2015), individuals holding a special status in society (Young, 2015), peers or friends (Lapinski & Rimal, 2005; Siu et al., 2012). They can influence norm dynamics at all stages of a norm's life cycle: from facilitating the diffusion, transmission and spreading of norms, to encouraging others to adopt a new norm or abandon an existing one, instigating norm cascades.

Power dynamics. Five reviews discuss how power relations can affect the emergence or dissipation of social norms, as happens when, for instance, the diffusion of a new norm in a group encounters active resistance from some powerful members (Mackie et al., 2015; Mahmoud et al., 2014; Popitz, 2017; Sunstein, 1996; Vaitla, Taylor, Van Horn, et al., 2017). Vaitla and colleagues (2017) argue that power is central to understanding norm compliance. They divide the literature into theories that favour "power explanations" (norms take hold top-down, through formal institutions and powerholders) and those that favour "historical

explanations” (norms emerge and change bottom-up, naturally through time). The study of how power dynamics affect norms requires an understanding of the ways in which groups and individuals can affect norm dynamics based on the place they occupy on the social hierarchy (Mackie et al., 2015) (Popitz, 2017; Sunstein, 1996) and which specific individuals or groups have the ability to enforce or resist the adoption of a norm (Popitz, 2017) as, for instance, in the case of a trade union dominated by people of a given race or gender who carry out exclusionary strategies to maintain their privileged position in the labour force. When powerful groups or individuals have an important role to play in norms transformation collective action and social movements must offset established hierarchies and powerful groups (Burke & Young, 2011) or involve them strategically in the movement for social improvement (Mackie et al., 2015) (Vaitla, Taylor, Van Horn, et al., 2017).

Looking at these mechanisms synoptically allows greater critical awareness of the appropriateness of existing methods to shift harmful norms. The traditional social norms approach has largely focussed on correcting misperceptions (Alan Berkowitz, 2002; Goldstein & Mortensen, 2012). These health interventions aim to increase people’s awareness that only a low percentage of people engages in a harmful practice. Often, these interventions (common in US university campuses) spread messages such as: “At Stanford University, 9 students out of 10 do not drink alcohol on Saturday night”; or “93% of men living in Paris agree that only cowards hit women”. However, such an approach only works when there is widespread (mostly tacit) support to changing the norm and, for this reason, it has recently been criticised as a “narrow” approach to social norms change (Bingenheimer, 2019). New approaches are now integrating strategies that work with core group of populations to change their attitudes first, and equip them with skills and knowledge to become agent of change in their community, with effective results in changing social norms by working with powerholders, role models, and law makers (Cislaghi & Heise, 2018a; Pulerwitz et al., 2019).

As practitioners and scholars collaborate further to bridge social norms theory and practice, taking into account the five mechanisms we identified, and testing how they can be integrated into effective programmes, has the potential to improve social norms interventions in the field.

What categories of agents are identified in the reviews as relevant in the study of social norms?

Several reviews mention the “reference group” (defined below) as an important element of social norms theory (Bicchieri & Muldoon, 2014; Chung & Rimal, 2016; Dannals & Miller, 2017; Lapinski & Rimal, 2005; Mackie et al., 2015; Vaitla, Taylor, Van Horn, et al., 2017). Those that did not mention the concept explicitly still discuss how different social norms are created and reproduced within social groups, sustaining practices that are ritualized as symbols of group membership in ways that affect people’s self-understanding (E. Anderson, 2000; J. E. Anderson & Dunning, 2014; Bell & Cox, 2015; Boytsun et al., 2011; Burke & Young, 2011; Cialdini & Trost, 1998; Etzioni, 2000; Gibbs, 1965; Mahmoud et al., 2014; Morris et al., 2015; Popitz, 2017; Reid et al., 2010; Siu et al., 2012; Sunstein, 1996; Young, 2015). In this section, we discuss the categories of groups that are relevant to understanding social norms, as revealed by our analysis.

In broad terms, “reference group” refers to the relevant others whose behaviour and (dis)approval matter in sustaining the norm. Different social norms can have different reference groups (smoking might be a norm in a group of adolescents, but not in the adolescents’ families) and the same norm can change across different groups (tipping is prescribed in the United States but proscribed in Japan) (Popitz, 2017; Vaitla, Taylor, Van Horn, et al., 2017).

Across the reviews, and even within reviews, we found several – sometimes conflicting – uses of the term “reference group”. The confusion is problematic because many

methods for studying norms and norm change involve identifying the reference group related to a norm (Mackie et al., 2015), but might in practice be measuring different groups of people. We identified three categories of people that are key to understanding how social norms are sustained: 1) *Norm targets*, the people who comply with the norm; 2) *Norm drivers*, the people who exert influence over the norm's life cycle; and 3) *Norms beneficiaries and victims*, the people who are affected by the social norm, including when they are neither actors or influencers (See Table 5).

Table 5

Actor categories mentioned in the reviews.

Category	Sub-category	Description	Mentioned by review	Example
<i>Targets</i>	Subjects	The group of people the norm applies to. The individuals who are supposed to follow the norm.	(J. E. Anderson & Dunning, 2014; Cialdini & Trost, 1998; Lapinski & Rimal, 2005; Popitz, 2017; Sunstein, 1996; Villatoro, 2010)	Subway passengers in the norm "You should let people off the subway before going on"
	Members of a group I want to belong to	The group of people that are members of social groups one wants to be a part of or identifies with.	(E. Anderson, 2000; Bell & Cox, 2015; Bicchieri & Muldoon, 2014; Boytsun, Deloof, & Matthyssens, 2011; Chung & Rimal, 2016; Dannals & Miller, 2017; Etzioni, 2000; Lapinski & Rimal, 2005; Morris, Hong, Chiu, & Liu, 2015)	Popular students in the norm "Popular students get drunk when partying".
<i>Norm drivers</i>	Enforcers	People who apply sanctions, react to violations of a norm or reward compliance. In the case of institutionalized norms, the state might be the enforcer, in other cases it can be community members or even the entire population.	(E. Anderson, 2000; J. E. Anderson & Dunning, 2014; Boytsun et al., 2011; Chung & Rimal, 2016; Mackie, Moneti, Shakya, & Denny, 2015; Mahmoud, Ahmad, Yusoff, & Mustapha, 2014; Popitz, 2017; Vaitla, Taylor, Van Horn, & Cislighi, 2017)	Parents punishing their children for not complying with the norm that "children should obey to their parents".

	Social influencers	People who exert social influence on individuals (other than sanctions), motivating them to comply with the norm.	(Boytsun et al., 2011; Burke & Young, 2011; Chung & Rimal, 2016; Dannals & Miller, 2017; Etzioni, 2000; Siu, Shek, & Law, 2012)	Peers, family, role models, teachers.
	Norm leaders	Individuals with the ability to influence or convince others to adopt a new norm or change their behaviour. (Also called: opinion leaders, norm entrepreneurs, change agents).	(Burke & Young, 2011; Chung & Rimal, 2016; Etzioni, 2000; Morris et al., 2015; Sunstein, 1996; Young, 2015)	Religious leaders calling for an end to child marriage.
	Norm followers	Majority of the population that follows norm leaders to update their beliefs, evaluations or behaviors.	(Burke & Young, 2011; Morris et al., 2015; Sunstein, 1996; Young, 2015)	People who buy a smartphone because it is now a popular trend.
	Powerful groups	Groups that have the ability to direct/control norm dynamics, such as introducing a new norm, or resisting norm change.	(Mackie et al., 2015; Popitz, 2017)	Religious groups that oppose women's use of the contraceptive pill.
<i>Beneficiaries and victims</i>	Beneficiaries	The people who benefit from the norm or its consequences. This can include the entire population in the case of norms of cooperation, or a specific group.	(J. E. Anderson & Dunning, 2014; Villatoro, 2010)	Non-smokers benefiting from a norm that "smokers should not smoke in public places".
	Victims	Those negatively affected by a norm.	(Vaitla et al., 2017)	Girls who do not want to get married in the norm that "girls should get married soon after puberty".

Norm targets. At times, the term "reference group" is used to define the people to whom the norm applies (Chung & Rimal, 2016; Dannals & Miller, 2017; Lapinski & Rimal, 2005; Mackie et al., 2015; Morris et al., 2015), the subjects or – using a term coined by Coleman (1990) – the *targets* of the norm (J. E. Anderson & Dunning, 2014; Mackie et al., 2015; Villatoro, 2010). Take, for instance, a group of people living in a condominium. They hear domestic violence but decide not to intervene, because there is a norm that "people in

this neighbourhood do not intervene in other family's business". The norm thus targets "people in this neighbourhood". Targets can be either members of specific groups or social categories (pedestrians, adolescent girls, CEOs, for instance). Two reviews mention that people can spontaneously make themselves targets of a norm, motivated by the desire to be associated with specific social categories (E. Anderson, 2000; Bicchieri & Muldoon, 2014).

Norm drivers. At other times, "reference group" alludes to the group of people whose influence contributes to maintaining a given norm. Norm drivers would be, for instance, a group of adolescents exerting pressure on a peer to make him comply with a smoking norm (Bicchieri & Muldoon, 2014; Mackie et al., 2015; Vaitla, Taylor, Van Horn, et al., 2017). These *norm drivers* do not necessarily comply with the norm themselves, but their opinions and actions matter in shaping people's beliefs about what important others do and approve of. Several types of norm drivers exist (see Table 5). *Enforcers* actively encourage conformity with the existing status quo and contribute to maintaining a social norm in place. *Norm leaders*, by contrast, set norm change in motion (J. E. Anderson & Dunning, 2014; Dannals & Miller, 2017; Etzioni, 2000; Lapinski & Rimal, 2005; Mahmoud et al., 2014; Morris et al., 2015; Sunstein, 1996; Vaitla, Taylor, Van Horn, et al., 2017; Young, 2015), either because they are particularly influential (Mackie et al., 2015) or because they are more willing to bear the costs of violating a norm (Villatoro, 2010). Finally, *norm followers* are those who change their actions to comply with a new, emerging norm after norm leaders do or after a large proportion of the population do so; they are key to moving a population into a new normative equilibrium, where a large majority complies with the new norm (J. E. Anderson & Dunning, 2014; Mackie et al., 2015; Mahmoud et al., 2014; Vaitla, Taylor, Van Horn, et al., 2017; Villatoro, 2010).

Norm beneficiaries and victims. No reviews use the term "reference group" to refer to those who are affected by a norm – those who here we call norm "beneficiaries and

victims”. We believe this third category to be important enough to deserve separate recognition. Norm beneficiaries are those who gain from the existing normative equilibrium. In the domestic violence example offered earlier on, a perpetrator of domestic violence benefits from a norm that “people in this neighbourhood do not intervene in other family’s business” as they are not reported. Norm victims are those who lose from the existing normative equilibrium (as the victim of domestic violence above). The distinction between beneficiaries and victims is not always straightforward and will sometimes depend on the observer’s judgement. An adolescent might say they “benefit” from binge drinking in that they receive the approval of their peers, thus improving their sense of belonging, while a public health policy-maker might believe that that same adolescent is harmed by the norm. While for conceptual clarity we have presented three separate categories (norm targets, norm drivers, and norm beneficiaries/victims), in the real world they often overlap. Targets can influence others through their compliance as well as benefiting or being harmed by the norm. Take, for instance, the norm that prescribes punctuality in an organization. Here, all three groups are the same: norm targets (who comply with the norm by arriving on time for meetings) are also norm drivers (as they disapprove or complain about violators) and norm beneficiaries (as by complying with the norm they save time and ensure that their work can be achieved more effectively). A norm that adolescent girls should get married soon after puberty offers instead an example where only some of the three groups overlap. Norm targets are the adolescent girls, who must get married soon after puberty, but (especially when they don’t want to marry young) they are also norm victims. Parents, community members, and traditional leaders, could be both norm drivers and norm beneficiaries (Vaitla, Taylor, Horn, & Cislighi, 2017).

Conclusion

In this paper, we set out on a path to investigate how multi-disciplinary reviews of social norms theory organised this large body of literature. Four thematic areas of investigation emerged as we explored the papers that made it through our screening. The first related to the nature of social norms; here, we identified areas of debate and consensus, especially with regard to whether social norms are individual or collective constructs (see Tables 2 and 3). We suggested that these two approaches might be useful to different scholars and practitioners (e.g. the former to those working on behavioural change in global health and international development, the latter to historians and sociologists). The second area of investigation related to the pathways through which norms influence people's actions. Areas of consensus and debate related to whether one or multiple pathways lead from norms to action, with our preference for the latter explanation. The pathways in the reviews naturally clustered into three categories: 1) norms offering value-neutral information, 2) norms creating external obligations, and 3) norms becoming internal obligations. The third area related to the life-stages of social norms: how they emerge, survive, and dissipate. We identified several sub-stages across the reviews (see Table 4) and uncovered five key mechanisms that facilitate movement of a norm across these life-stages: 1) Correction of misperception; 2) Structural changes; 3) Legal reforms; 4) Role models; and 5) Power dynamics. We suggested that efforts to change social norms should look at how these five together interact and overlap, rather than investing time and resources only into one of them. Finally, the fourth and last area of investigation related to the groups relevant to the study of social norms. We discussed the role that norm targets, norm drivers, and norm beneficiaries/victims have to play. Even though the last of these categories was not found in the reviews, we argued for its inclusion in further work on social norms. Overall, we also found that reviews of the social norms literature could benefit from a closer engagement with social theory and related literature in

the social sciences. Future cross-disciplinary reviews of social norms theory might cover bordering theoretical space, engaging with the relation between norms theory and, for instance, theories looking at social capital (Lin, Cook, & Burt, 2001), social dominance (Sidanius & Pratto, 2001), and intersectional inequalities based on gender, class, or race (Samuels & Ross-Sheriff, 2008). Very few of the reviews included in this study tried to accomplish such a task. Popitz (2017) is one exception, as his work looked at how norms intersect with power relation in ways that sustain or undermine a given social order. Etzioni (2000) is the only other exception; his work partly looks at how acculturation and involvement in social or religious movements can change social norms.

From the present study, two important lines of enquiry emerge as trajectories for future research. Firstly, future research could investigate how the different mechanisms underlying social norms dynamics operate at different stages in the life of a norm. Future theoretical and empirical studies could map out what specific mechanisms are relevant to particular stages and sub-stages in the life cycle of a norm. Here, engagement with theories of diffusion (Cislaghi et al., 2019), acculturation (Ward & Geeraert, 2016), and structural ritualization (Knottnerus, 1997) might be particularly fruitful. Secondly, future research could increase our understanding of the relations and transitions between the three normative pathways we identified (providing information, creating external obligations and becoming internal obligations). Research questions in this line of enquiry would include: How and when are norms internalized? How and when do changes in individuals' preferences weaken social norms? And, how do people navigate conflicting influences from different normative pathways? Here, action identification theory (Vallacher & Wegner, 2011) and social identity theory (Hogg, 2016) might come in assistance of researcher looking at further integration between social norms and social theory. As empirical and theoretical work on social norms advances into its next phase of investigation, we hope for greater cross-disciplinary work to

extend and improve our understanding of the rules that bind us, expanding what may be one of the oldest research trajectories in the history of human thought.

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