

Norm Multiplicity

Folco Panizza¹

Alexander Vostroknutov²

1 IMT School for Advanced Studies, Lucca, Italy. E-mail: folco.panizza@imtlucca.it

2 Maastricht University, The Netherlands. Corresponding author: a.vostroknutov@maastrichtuniversity.nl

Keywords: social norms, multiple norms, punishment, tight/loose societies, cultural evolutionary mismatch, reference networks.

Abstract

Norm multiplicity, defined as co-existence of incompatible normative views in a population, is a widespread phenomenon that can have large societal consequences. In this review, we synthesize current theoretical perspective on norm multiplicity, why it may persist for long periods of time, and what effects it can have on behavior and society. Next, we discuss recently developed experimental tasks that were designed to quantify and measure norm multiplicity. The results of these measurements suggest that people naturally think in terms of multiple normative views, that multiplicity is ubiquitous, and that it has direct and measurable impact on behavior.

Introduction

Imagine you have been invited to a wedding, but the invitation does not include any instructions on dress code. What is an appropriate attire for such an event? The question is tricky because not everyone shares the same convictions: some people might believe that only formal suits are appropriate, others that attire should be neither too formal nor too casual, while still others believe that, since no dress code was specified, everyone can wear what they prefer.

In this example, people hold different beliefs about the *norm*, or individual belief about the rules of social conduct that are also believed to be shared by some social group (e.g., wedding guests). When different individuals in the same population adhere to different norms, we have a case of *norm multiplicity*.

Norm multiplicity occurs in many different situations, such as when new customs or technologies are introduced into a society and there is no normative consensus yet (Gelfand et al., 2024), or when different subgroups coexist. Crucially, multiplicity is not simply a norm that is loosely enforced (Gelfand et al., 2011), but rather different normative views that could not be enforced simultaneously because they would be to some extent mutually incompatible.

When multiple conflicting beliefs co-exist, this may create various group dynamics depending on *perceived norm multiplicity*. For example, during the wedding—when a member of the “formal” group gets into a conflict with a member of the “informal” one—attitudes and behaviors may polarize. Here, the member of the formal group does not perceive norm multiplicity and treats any deviation from the formal dress code as a norm violation. A member of the informal group may believe that there are multiple normative views about the dress code and so does perceive norm multiplicity and, as a result, does not think of formal group as norm violators. Note that perceived norm multiplicity is not synonymous with the absence of norms: even members of the informal group will think of someone who comes to the wedding naked as a norm violator.

Despite the intuitive ubiquity of (perceived) norm multiplicity and its obvious effects at all levels of society, our current understanding of this phenomenon is far from perfect. The studies that touch upon multiple norms and their perception are scattered across many branches of social sciences. In this review, we attempt to synthesize the current perspective on norm multiplicity from different fields and review the newly emerging methods that allow measuring (perceived) norm multiplicity and testing theoretical predictions.

Why does norm multiplicity persist?

Wide-spread consensus in the various literatures studying social norms posits that norms exist as a means to foster cooperation and coordination within social groups (e.g., Henrich, 2015). It is therefore quite puzzling why a multiplicity of norms should exist, let alone *persist*. Why do some societies tolerate norm multiplicity, potentially creating confusion and miscoordination, when one norm could do a better job?

One might be tempted to think that this seemingly suboptimal state pertains exclusively to complex, modern societies where extensive ethnographic and cultural blending of populations has inevitably led to multiplicity. Far from it, multiplicity has been observed in more isolated or traditional settings. For example, Efferson et al. (2015) find a large heterogeneity in rates of female genital cutting within rural communities in Sudan, which suggests that people who maintain this practice are mixed with people who do not support it. Similarly, there are cultural differences within South African communities that lead to widely varying rates of medical circumcision (Thomas et al., 2024). This evidence suggests that multiple traditions, moral views, and practices can and do co-exist within many different populations. What reasons could then lead to the persistence of multiple norms? We consider some perspectives in the literature that can illuminate this question.

Cultural evolutionary mismatches

Multiplicity may arise from *cultural evolutionary mismatches* (Gelfand et al., 2024). The concept of mismatch derives from the idea that norms evolve to promote cooperation or coordination in certain populations and in specific environments: norms will “work” as long as these conditions keep being relevant for society. However, when individuals from one culture move into different settings, or when the living conditions of the population change, a cultural mismatch can happen as people keep following norms they are used to without recognizing that the past contexts—in which these norms were relevant—do not apply anymore (Gelfand, 2021; Nunn, 2022; Gelfand et al., 2024). Cultural evolutionary mismatches may explain why multiple, possibly outdated, norms may stick in multicultural societies.

Tightness versus looseness

Past and present ecological factors can also play an important role in the characteristics and multiplicity of norms observed in a society. In this regard, Gelfand (2019) proposes a theory of tight (usually authoritarian) and loose (usually democratic) societies. The former are characterized by strict adherence to well-defined “official” norms and harsh punishments for deviations; the latter by tolerance for multiple moral views and less punishment. Gelfand et al. (2024) suggest that the types of norms that evolve in a society (tight or loose) are influenced by various ecological factors. Constant ecological threat, for example, has been suggested to produce tight societies with dominant, strictly enforced norms, while stable ecological conditions are conducive to loose societies with tolerance of norm multiplicity.

Non-overlapping reference networks

Norm multiplicity can persist within a social group due to dependence of perceived norms on specific, individual reference networks. For example, Bellani et al. (2023) report that norms related to employment of women in Bangladesh depend on the views of their fathers or husbands on the matter, thus creating persistent difference in norms. Neighbors et al. (2010) find that the norms related to drinking alcohol among students depends on the views in their reference network such as same-sex, same-race, or same-Greek-status students. Heinicke et al. (2022) find similar results in mini-Dictator games.

Meta-perceptions

Lack of communication and public discourse on moral views in a society can significantly distort the beliefs held by various groups about each other's norms. For example, Bursztyn et al. (2023) report wide-spread false consensus, overweighting of the minority views, and gender stereotyping in nationally representative datasets from 60 countries, which suggests that (perceived) norm multiplicity can originate from lack of communication, absence of information, or ignorance. Distorted perception of the outgroup can also be self-serving, as it can justify a stronger ingroup identity and anti-outgroup behavior (Lees, Cikara, 2020; Moore-Berg et al., 2020), with potentially dire societal consequences (Braley et al., 2023; Pasek et al., 2022; Landry et al., 2023).

Effects of norm multiplicity

From the perspective of economic efficiency, multiplicity of norms might not be preferable to a single norm simply because multiplicity can create confusion or miscoordination. However realistically, within a society or a social group, individuals might never have exactly identical moral views due to, for example, different traditions or simply due to different information that they may possess (Tremewan, Vostroknutov, 2021). Thus, any society has to deal with norm multiplicity to some extent, at least as much as it has to deal with poor communication among separate social groups.

Figure 1 (from Merguei et al., 2022) showcases the extent to which the perceived norms can be different in a simple economic experiment. These are individual normative evaluations (from “very inappropriate” to “very appropriate”) of actions in the Dictator game where a participant called “dictator” divides \$1 between herself and the recipient. Notice that monetary incentives in the experiment (via the Krupka-Weber task, Krupka, Weber, 2013) pushed participants to report what they believed is the norm *in the population* and not their personal norm (see Gross, Vostroknutov (2022) for review). Thus, Figure 1 shows a remarkable heterogeneity in what people believe the prevailing views are among other participants.

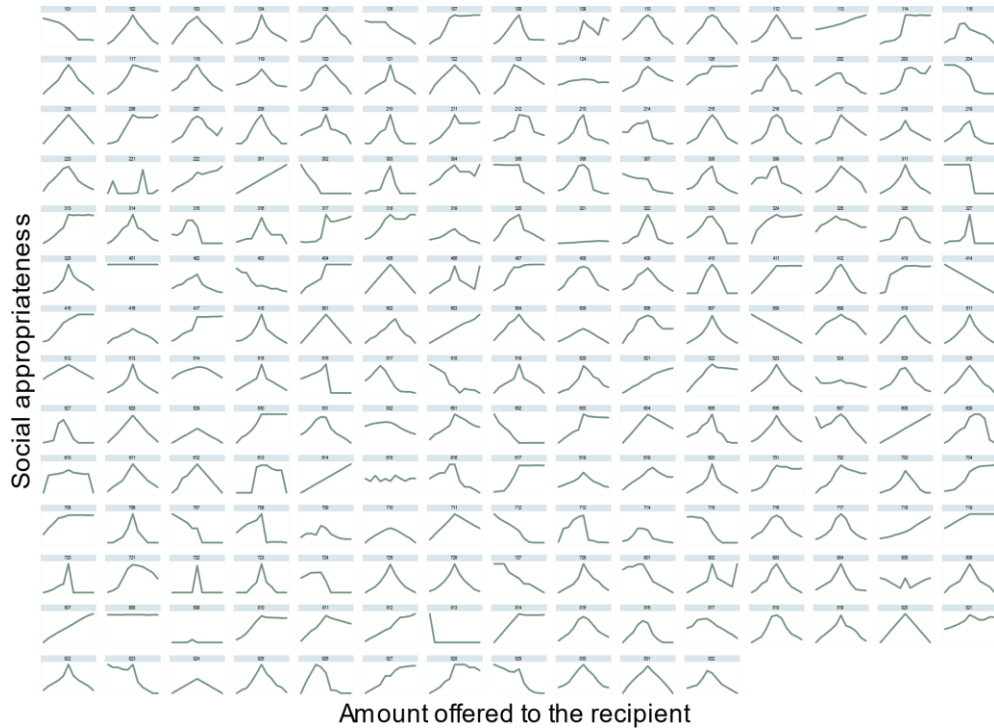


Figure 1. Individual moral views in the Dictator game (from Merguei et al., 2022). Each graph represents one participant. On the x-axis is the amount out of \$1 offered to the recipient. On the y-axis is social appropriateness expressed as a continuous measure from “very inappropriate” to “very appropriate.”

Merguei et al. (2022) also investigated the behavioral effects of recipients’ observing the normative views of their dictators (one individual graph from the figure). Recipients could subtract money from the dictator, but were faced with perceived norm multiplicity with regard to whose norm (their own or the dictator’s) to use for punishment. The participants reacted to observed differences in normative views by punishing the dictator using the “cheapest” norm, or the view that entailed less punishment costs. This experiment demonstrated that perceived norm multiplicity has tangible behavioral implications in the form of reduced punishment (see also Xiao, Bicchieri (2010) for similar results). Consistently, Panizza et al. (2024a) also suggest that third-party punishment is lower among participants who perceive multiple norms as compared to those who perceive only one.

Measuring norm multiplicity

Many studies in social sciences deal with norm multiplicity directly or indirectly. For instance, the results of political polls reported on TV are examples of observations of norm multiplicity in specific contexts. A poll might suggest, for example, that people, who identify as Republicans, support certain political measures more than people who identify as Democrats. This is an instance of norm multiplicity that can inform us about current beliefs among different groups in the society.

Even though such knowledge about moral views in different social groups can be very useful, and there is plenty of data to show that normative views do differ, it does not say anything about the actual norm multiplicity or how it is perceived. In a typical survey or even in the norm elicitation task described above (based on Krupka, Weber, 2013), participants are typically asked about a *single measure* of their perception of social appropriateness of some action or policy. Thus, the very nature of the procedure prevents

researchers from learning if participants perceive that multiple views apply to the context. Therefore, there is a need to establish some measurement procedures that could help to understand in principle if and what kind of (perceived) norm multiplicity exists.

Several recent studies tackle this problem directly. In Peeters, Wolk (2019) and Fragiadakis et al. (2019) the general, incentive-compatible tasks for eliciting any multiple beliefs are proposed. These methods can be used to elicit beliefs of participants in the form of frequencies of various alternatives. The methods can be modified to fit most experimental designs keeping the incentive-compatibility of the procedure intact.

Such methods can also be used to measure perceived norm multiplicity. For instance, for a given action in the Dictator game (e.g., give 30% of the pie to the recipient), we can learn about different appropriateness levels that participants deem possible and their believed frequencies in the population. Dimant et al. (2023) use such techniques to obtain distributions of appropriateness ratings from each participant in a Public Goods game (see also Dimant, 2023, 2024). They study the effects of participants' observing various distributions of views (corresponding to tight, loose, and polarized scenarios) and find that the behavioral reactions are very different: participants adjust their contributions to the type of norm multiplicity they face. Specifically, it seems that each scenario promulgates itself by creating the behavior consistent with the observed beliefs.

Methods such as these are useful to get an average picture of the distribution of normative views and their perception in a population. However, they do not allow to separate the actual social norms that prescribe the *relative appropriateness* of the whole spectrum of actions. For example in the Dictator game, the norm "we should share the pie equally" suggests not only that the 50/50 split has high social appropriateness but also that unequal splits like 100/0 or 0/100 have low appropriateness (these can be seen on Figure 1 as hump-shaped norms). The norm "we should be nice to others" can also be seen on Figure 1: an increasing norm that assigns the highest appropriateness to giving everything to the recipient, and the lowest appropriateness to giving nothing. Thus, a norm is defined by the relative appropriateness ratings of all available actions and not just a single one. Methods based on eliciting distributions cannot separate different norms of this kind.

To overcome this problem, Panizza et al. (2024a) propose a novel Norm-Drawing Task that provides an incentive-compatible procedure to elicit multiple normative views over a set of actions where the number of views is also chosen endogenously. Here participants are asked to draw many separate norms (in each norm, appropriateness is specified for all actions) that represent different views that participants believe are present in the population. For example, participants can express the belief that both "share the pie equally" and "be nice to others" are present with certain frequencies. The study finds that in the Dictator game participants express around four separate normative views on average and that participants who perceive more norms punish others less, which is consistent with the findings in Merguei et al. (2022).

The Norm-Drawing Task can illuminate both the normative landscape surrounding some issue and the perception of this landscape by various agents. Panizza et al. (2024b) use this method to elicit political views among Republicans and Democrats and report a large number of normative views not only across but also within political parties. They also find significant differences in the perception of norm multiplicity with Democrats being better at predicting multiple norms of their own group than Republicans.

Taken together, all this evidence suggests that (perceived) norm multiplicity is ubiquitous and that the better understanding of normative landscape in a society requires better understanding of the variety of moral views and their perception. The new tasks reviewed above can help researchers to address issues related to (perceived) norm multiplicity and to take its effects into account.

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This is the latest interdisciplinary perspective on social norms paradigm that amalgamates the current knowledge coming from many social sciences. The article covers a wide range of topics from the mechanisms driving norm-following behavior, as well as the emergence,

change, and persistence of norms. It can be useful to any social scientist who deals with social behavior and policy.

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