



Social Norm Change: Drivers and Consequences Workshop
16-17 June 2022

Institute for Future Studies, Holländargatan 13, Stockholm

June 15 (Wednesday)

18:00	Pre-workshop drinks: Urban Deli rooftop , Sveavägen 44, 9th floor
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June 16 (Thursday)

9:30-9:45	<i>Gustaf Arrhenius</i> Welcome
9:45-10:30	<i>Cristina Bicchieri</i> Difficulties of norm-nudging
10:30-11:15	<i>Giulia Andrighetto</i> Dynamics of Social Norms Under Collective Risk
11:15-11:30	Coffee Break
11:30-12:15	<i>Wojtek Prezziorka</i> Newcomers, normative disagreement, and cooperation
12:15-13:30	Lunch
13:30-14:15	<i>Sergey Gavrilets</i> Disentangling material, social, and cognitive determinants of human behavior and beliefs
14:15-15:00	<i>Nanda Wijermans</i> Normative decision making under risk: An agent-based modelling approach
15:00-15:15	Coffee Break
15:15-16:00	<i>Anxo Sanchez</i> The effectiveness of prosocial policies: Gender differences arising from social norms
16:00-16:45	<i>Luca Tummolini</i> The evolution of revenge norms with individual and group reputation
18:00	Social Dinner: Villa Godthem , Rosendalsvägen 9

June 17 (Friday)

9:30-10:15	<i>Simon Gächter</i> Low-cost social control for sustaining the common good
10:15-11:00	<i>Eva Vriens</i> The formation and decay of Covid-19 social distancing norms
11:00-11:15	Coffee Break
11:15-12:00	<i>Catherine Molho</i> Direct and indirect punishment of norm violations in daily life
12:00-13:30	Lunch
13:30-14:15	<i>Pontus Strimling</i> Argument advantage as a driver of norm change
14:15-15:00	<i>Amalia Alvarez Benjumea</i> The contagion of Anti-immigrant Views
15:00-15:15	Coffee Break
15:15-16:00	<i>Aron Szekely</i> Changes in Social Norms After the Onset of COVID-19 Across 43 Countries
16:00-16:10	Closing remarks



Organizers

- **Giulia Andrighetto** - Institute of Cognitive Sciences and Technologies (Rome); Institute for Future Studies (Stockholm); Mälardalen University (Vasteras) (giulia.andrighetto@gmail.com)
- **Eva Vriens** - Institute of Cognitive Sciences and Technologies (Rome); Institute for Future Studies (Stockholm) (evavriens@gmail.com)
- **Nanda Wijermans** - Stockholm Resilience Center (Stockholm); Institute for Future Studies (Stockholm) (nanda.wijermans@iffs.se).

Participants

- Dr. Amalia Alvarez Benjumea - Max Planck Institute for Research on Collective Goods (alvarezbenjumea@coll.mpg.de)
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- Dr. Aron Szekely - Collegio Carlo Alberto (aron.szekely@carloalberto.org);
- Dr. Pontus Strimling - Institute for Future Studies (Stockholm) (strimling.research@gmail.com);
- Dr. Luca Tummolini - Institute of Cognitive Sciences and Technologies (Rome)
- Dr. Eva Vriens - Institute of Cognitive Sciences and Technologies (Rome); Institute for Future Studies (Stockholm) (evavriens@gmail.com);
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Difficulties of norm-nudging

Prof. Cristina Bicchieri

Dynamics of Social Norms Under Collective Risk

Dr. Giulia Andrighetto

There is a fundamental need to understand how to deal with global threats facing human beings like climate change, natural disasters, and pandemics. Managing these emergencies requires collective behavioral changes, wherein each individual action makes a difference. This implies solving a collective risk dilemma: individuals should make efforts not to realize a personal gain but to avoid a collective loss that has some risk of occurring (e.g., dangerous climate change). Norms have often been praised as potential solutions to this type of dilemma. Despite their relevance, how norms shape cooperation under risk is still insufficiently understood. We use a 30-day collective-risk social dilemma experiment to observe and measure norms dynamics in a controlled setting and their effect in promoting cooperation under risk. We find that social norms strengthen and make people more cooperative under risk. Yet, we also observe that as risk decreases norms lose their strength and cooperation declines. Taken together these results indicate that it is not obvious that norms are effective solutions to deal with (changing) collective risk, since the norms themselves are affected by risk as well. If we want to leverage social norms to promote long-lasting cooperation, we need a better understanding of the feedback cycle between norms, risk, and behavior.

Newcomers, normative disagreement, and cooperation

Dr. Wojtek Przepiorka

Cooperation in groups often requires individual members to make costly contributions that benefit the group as a whole. Prior research suggests that shared norms can help to support ingroup cooperation by prescribing common standards of how much to contribute. However, these common standards may be disrupted due to membership change, e.g., when newcomers enter a group of incumbents. We study the effects of changes in group composition on cooperation in a laboratory experiment and by means of analyses of digital trace data from a massive multiplayer online game. In the laboratory experiment, we manipulate whether newcomers and incumbents disagree about how much to contribute in a public goods game with peer punishment. We examine whether normative disagreement between newcomers and incumbents affects newcomer-incumbent relations in terms of group identification, the emergence of a social norm, and costly punishment. Contrary to expectations, normative disagreement does not affect cooperation negatively. Incumbents direct their punishment at low-contributing newcomers, leading them to conform to the incumbents' cooperation levels. In the second study, we analyze a large dataset from an online public goods game comprising around 1.5 million contribution decisions made by 135 thousand players in 11.3 thousand groups with 234 thousand recorded changes in the composition of these groups. We find that changes in group composition negatively relate to cooperation in public good provision, mainly because newcomers contribute less than incumbents. However, during the process of moving from newcomer status to incumbent status, individuals increase their contributions to the public good. Our findings advance our understanding of how the interplay of normative expectations and sanctioning behavior affects cooperation in changing groups of heterogeneous agents.



Disentangling material, social, and cognitive determinants of human behavior and beliefs

Prof. Sergey Gavrilets

From our everyday experience we all know that material, social and cognitive factors are important for our actions and beliefs. Previous research has shown that these factors often have statistically significant effects on individual actions. Using a novel integrative mathematical model and long-term behavioral experiments we directly measure and compare the weights of different forces affecting human behavior and beliefs in economically and practically meaningful ways. We show that material payoffs accounted only for about 20% of decision-making. The remaining 80% was due to non-material factors (cognitive and social) which we evaluate quantitatively. Between-individual variation was present in all measured parameters notably affecting group behavior. At the same time, gender differences were not significant. Our results have implications for understanding and predicting social processes triggered by certain shocks (e.g., social unrest or a pandemic) or identifying suitable policy intervention strategies (e.g. actions aimed at environment protection or climate change mitigation) for different contexts.

Normative decision making under risk: An agent-based modelling approach

Dr. Nanda Wijermans

To advance the understanding of the role of norms under collective risk, we develop and explore an agent-based model to address behavioural diversity under changing norm and risk. Our model contains agents with different decision-making modes. These agent types are based on the clusters we derived from an behavioural experiment of an iterative collective risk social dilemma. Each agent type has a different tendency to contribute and has a different sensitivity to norms and risk. During our talk, we will detail how these agents decide and interact with each other. In particular, we will focus on the role normative decision making under dynamic risk in a population of heterogeneously deciding agents.

The effectiveness of prosocial policies: Gender differences arising from social norms

Prof. Anxo Sánchez

We study policies aimed at discouraging behavior that produces negative externalities, and their differential gender impact. Using driving as an application, we develop a model where slowest vehicles are the safest choice, whereas faster driving speeds lead to higher potential payoffs but higher probabilities of accidents. Faster speeds have a personal benefit but create a negative externality. The model motivates four experimental policy conditions. We find that the most effective policies use different framing and endogenously determined punishment mechanisms (to fast drivers by other drivers). These policies are only effective for female drivers which leads to substantial gender payoff differences. Our data suggest that these results arise from differences in social norms across genders, thus opening the way to designing more effective policies.



The formation of revenge norms with individual and group reputation

Dr. Luca Tummolini

In contrast with norms that promote cooperation and forgiveness, revenge norms prescribe aggressive, and even violent, responses to offenses. Under what conditions do these norms form? Theoretical models have so far investigated the effect of reputation of individuals but empirical studies have also attested that violence and aggression often follow offenses to the group one belongs to. Importantly, the cooperation problem that needs to be addressed to sustain group reputation suggests that solutions to this social dilemma may play an overlooked role in turning revenge into a group-level social norm. In this talk I will address this question using the experimental game approach. In our experiment, subjects face an indefinitely repeated Hawk-Dove game either as attackers or defenders. In six treatments, we vary the value of the contended resource relative to the cost of losing a fight and the kind of information that defenders transmit to attackers. In particular, we explore the role of group reputation and of two social mechanisms that may sustain it: status rewards and peer punishment. To identify and measure the formation of social norms we elicit social expectations.

Low-cost social control for sustaining the common good

Prof. Simon Gächter

Human cooperation likely evolved in communities where people knew each other, and people's cooperativeness was transparent to everyone. By contrast, modern societies often require the cooperation of strangers or those acting under the cover of anonymity, e.g., in online settings. How can social control sustain efficient cooperation for the common good across this spectrum of social settings? Here we present a comprehensive experimental model using laboratory public goods games without and with punishment. We vary the degree of social information about the identity and actions of group members as well as the length of interaction and the costliness of punishment. Our results show that punishment is more frequent in anonymous than non-anonymous settings but much more efficient in the latter. The reason is that near-full cooperation can be achieved even when punishment becomes very rare: punishment can "piggyback" on cooperation induced by non-anonymous and transparent interaction, rendering punishment less necessary. We show that the power of social control can be harnessed at very low cost but only if the interaction is non-anonymous and long-term and if punishment is costlier for the punished individual than for the punisher. Our experimental models of cooperation help to explain the evolution of punishment as a fundamental mechanism of social control; they also provide a framework for understanding naturally occurring problems of cooperation, in terms of key features of their social interaction structures, in settings ranging from the workplace to cyberspace.



The formation and decay of Covid-19 social distancing norms

Dr. Eva Vriens

The Covid-19 pandemic required large-scale, rapid behavioral change, where traditional norms had to be replaced with new norms that prevent physical contact and promote social distance. Since compliance with these new norms is conditional on the risk level, the pandemic provided a unique opportunity to study processes of norm formation and norm decay in real-world contexts within short time frames. We tracked empirical and normative expectations of social distancing in public spaces and empirical and normative expectations of punishment from June 2021 to February 2022 to see how norms and meta norms of punishment evolved as the Covid-19 risk decreased and increased. Our goal was to study how resilient norms are to changing risk and particularly whether they recover when risk increases again. We found meta norms of punishment to follow risk dynamics, while social norms of distance—initially more resilient—recover too late. The results suggest that risk alone is insufficient to recover social norms when the lack of meta norms of punishment introduce tolerance for norm violations.

Direct and indirect punishment of norm violations in daily life

Dr. Catherine Molho

Across societies, humans punish norm violations. Theoretical accounts and field observations suggest that, to intervene against offenders, people use a variety of tactics which differ in their benefits and costs. Here, we draw a distinction between direct punishment tactics (i.e., physical and verbal confrontation) and indirect reputation-based tactics (i.e., gossip and ostracism) to intervene against norm violations. In a longitudinal study conducted in the Netherlands, we document punishment responses to norm violations that people experience over the course of their daily lives ($k = 1507$; $N = 257$). Using this rich dataset, we test pre-registered hypotheses about the situational, relational, and emotional antecedents of direct, confrontational punishment and indirect punishment, via gossip and social exclusion. Overall, we find that people use confrontation versus gossip in a context-sensitive manner. Confrontation is more likely when punishers have been personally victimized, have more power, and value offenders more. Gossip is more likely when norm violations are severe and when punishers have less power, value offenders less, and experience disgust. Overall, we find that people weigh the benefits of changing others' behavior against the costs of potential retaliation when they decide how to punish.



Argument advantage as a driver of norm change

Dr. Pontus Strimling

Over the past 50 years, opinions about political moral issues, such as gender equality and same-sex marriage, have shifted in the liberal direction. We argue that this is because liberal opinions are more supported by arguments that tap into generally recognized moral concerns (such as liberty, fairness, and harm). This gives liberal opinions an *argument advantage* that allows them to gradually outcompete opinions supported by less generally recognized moral concerns (such as purity, loyalty, and authority). Through surveys directly measuring the perceived connection between different moral concerns and specific opinions, we have calculated the argument advantage of different opinions. Incorporating these measurements into dynamic models has allowed us to both account for historical opinion change and predict the speed and direction of future change on a large variety of issues. We are now applying this method to explain global opinion trends and to examine how sociological and cognitive factors affect individual differences in moral opinions.

Changes in Social Norms After the Onset of COVID-19 Across 43 Countries

Dr. Aron Szekely

The emergence of COVID-19 dramatically changed social behavior across societies and contexts. Did social norms also change? We study this question for cultural tightness (the degree to which societies generally have strong norms), specific social norms (e.g. stealing, handwashing), and norms about enforcement, using survey data from more than 30,000 respondents in 43 countries recorded recently before and recently after the emergence of COVID-19. Exploiting variation in disease intensity, we shed light on the mechanisms promoting changes in social norm measures. We find that COVID-19 strengthened handwashing norms, did not change most other norms, and, surprisingly, slightly decreased tightness in the early stages of the pandemic. Thus, at least in the short term, it seems the cultures are largely stable to pandemic threats except in those norms that are directly relevant to dealing with the collective threat.

Uncovering Hidden Opinions: The contagion of Anti-immigrant Views

Dr. Amalia Alvarez Benjumea

Social norms against the expression of hate prevent people from publicly expressing hostility or bigoted attitudes in public. This experiment seeks to explain the short-term dynamics of normative change induced by the observed pattern of behavior. Participants were invited to take part in an online forum discussing immigration issues. We manipulate the social acceptability of expressing prejudice by continuously increasing the proportion of hate comments - violations of the anti-hate norm. This allows for testing the dynamics that underlie normative change, and the resulting pattern of behavior. We recorded participants' comments and classified them based on their perceived social acceptability. We measure how the proportion of norm violations influences how the participants' comments change over time. The empirical results show that participants exposed to norm violations were more prone to express anti-immigrant views and use hateful language. Results confirm that compliance with the anti-hate norm depends on the social acceptability inferred from the context.