Extended Abstract

Title: **Social Closeness and Peer Effects**

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Understanding the determinants of human preferences, and how they can be changed, is one of the key obstacles towards a more thorough comprehension of economic decision-making, as well as efficient policy interventions. A crucial role in the shaping of preferences is uncontestably played by the social environment and particularly so by peers. A large and still growing body of literature has unambiguously demonstrated their importance for people's choices even in the absence of any payoff-interdependencies. By changing a private decision setting into a public one, the mere presence of others carries the potential to cause changes of behavior in various economically important strands of life. Evidence from both lab and field ranges from as diverse settings as education (Sacerdote 2001, Bursztyn et al 2015, and Bursztyn et al 2018) or labor markets (Mas, Moretti 2009, Falk/Ichino 2006), to charitable giving (DellaVigna et al QJE 2012), social program participation (Dahl et al 2014), or financial decision-making (Bursztyn et al 2014). The defining distinction between private and public settings is the observability of choices: a decision-maker's choices are observable to others, and others' choices are observable to the decision-maker.

We theoretically and experimentally investigate two important features of real-life peer-to-peer environments.

The first relates to the notion that people may feel closer to some of their peers, and more distant to others. These different degrees of social closeness may likely be reflected in the occurrence and magnitude of such potential social influences. However, so far studies on peer effects have looked at only one instance of social closeness at a time: Lab experiments typically study peer effects under full anonymity; field experiments naturally cover a greater variety of social closeness between interacting peers (e.g. college students or grocery store checkers), but often times lack the necessary control for systematic manipulations of social closeness while holding other potentially important elements of the decision setting constant. The closeness between peers as a driver of mutual influence has thus yet been ignored.

The second contribution our study is seeking to make is to isolate two typically simultaneously active channels in peer effects. Observability, the pre-requirement for peer effects to occur, changes the decision setting in two important ways at once: choices of others become observable, and own choices are no longer private. The former may cause imitation and conformity due to an aversion to stand out, the latter may induce social pressure and reputational concerns. The empirical relevance of both channels is well documented in the literature, but little is know about their relative importance for peer effects – particularly so with respect to socially differently close peers.

We show theoretically that social closeness may play a decisive role in determining peer effects in both of these channels. To address our research question empirically, we propose a novel experimental design. It uses exogenous variations of social closeness

between peers to pin down its impact on peer effects. Futhermore, it enbles us to carefully disentangles effects of being observed from those of observing others. It thereby allows ruling out potentially confounding factors such as strategic considerations, direct social preference links between agent and peer, and information spillovers. In particular we can also control for a notorious confound in the peer effects literature, namely unobserved similarities of preferences, and hence isolate the pure peer effect.
Our study is embedded in the context of cooperation in social dilemmas. In the center of our analyses is a one-shot contribution decision to a public good. Some subjects are observed while making their decisions, other subjects get to observe another subject's contribution prior to making their own decisions. In a between-subject design we vary the social closeness between observation pairs to get a measure of its relative weight in determining the strength of potential peer effects.

We provide causal evidence for social closeness to determine the prevalence and magnitude of peer effects in economically and statistically significant ways. The effect of social closeness is heterogeneous with respect to whether subjects are observed or observing.

For observed peers we find that social closeness induces prosociality in cases where, arguably, reputation is at stake. This is true both for the prevalence of free-riding on other subjects' contributions to a common public good, as well as for overall cooperativeness. Depending on the degree of social closeness, the average increase of contributions to the public good ranges between 1% and 40% relative to unobserved subjects.

For observing peers we find an increase of imitation of others with social closeness. As a prototypical illustration of this result may serve our finding that subjects contribute almost twice as much if they have seen a socially very close peer making a high contribution, compared to someone who has seen an equally close person contributing a low amount, while observing a high versus a low contribution from an anonymous peer does not seem to affect contribution decisions in any way. Importantly, we are able to attribute similar choices of socially close subjects to be causally driven by peer effects, rather than e.g. hidden similarities of preferences.

Understanding how peer effects change relative to more natural circumstances is important when it comes to applying them to the real world. An inevitable part of social life are different degrees of closeness to one's peers. Based on both our theoretical as well as on our empirical results we conclude that peer effects mainly exist conditional on the degree of social closeness to the respective peer. Not taking into account how close a decision-maker feels to its peer may therefore lead to inconclusive perceptions of the power of peer effects. This has direct public policy-relevance for any intervention that seeks to influence people in adopting desired behaviors such as getting vaccinations, using mosquito nets, etc. If it matters, whether a close person or a total stranger approaches people, then this needs to be taken into account.