

# How minimal social identity affects misreporting behaviors in competition?

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Competitive incentives are widely used in organizations because they push people to give the best of themselves and thus increase productivity and overall performance. However, it is well known that those incentives can also drive people to act unethically (Belot and Schröder, 2013; Cartwright and Menezes, 2014; Conrads et al., 2014; Faravelli et al., 2015; Friesen and Gangadharan, 2012; Schwierien and Weichselbaumer, 2010). This potential effect of competition is an important concern due to the cost of unethical behaviors for organizations and more generally for the economy. For a given organization dishonest behavior lead to losses that are estimated around 5% of revenues in a given year. Globally, it corresponds to a loss of about 6.3 billion dollars (ACFE, 2016). An important point is that what we call unethical behaviors refer to a wide range of actions, for instance, it can be keeping information or giving false information to colleagues, taking credit from the work of another person, lying to a client to get a contract signed or in transaction involving credence goods (Dulleck et al., 2012) or lying to improve another's payoff (Erat and Gneezy, 2012). In this article we focus on two types of unethical behaviors which consist either in misreporting (*i.e.*, by extension lying) to improve one own performance or in misreporting to sabotage others' performance. Previous literature has shown that those two types of lies do not bear the same intrinsic costs in the presence of competitive incentives (Rigdon and D'Esterre, 2015). Although competition incentives drive

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people to act unethically, another component of organization could affect such actions, namely social identity. Indeed, any organization is a social place, with people binding, hanging out with some of their colleagues. It can even be created by managers through team building events in order to generate a sense of belonging expected to create cooperation and improve productivity. This sense of belonging can be referred to as social identity and when two workers are in competition, their opponent's identity should matter in the decision to engage in an unethical action or not.

To summarize, in this study we tackle the following question, is the social identity of one's opponent affects one's willingness to lie and whether this is conditional on the possibility to inflate one's performance or deflate others' performance.

A wide range of studies have shown that social identity affects people's behavior, however, few of them get interested on its potential effect on lying or more generally on unethical behavior. The relationship between identity and lying has been mostly studied when lying can benefit for one's team. The results are that team incentives modulate the intrinsic cost of lying (Conrads et al., 2013; Danilov et al., 2013; Sutter and Strassmair, 2009). In addition, some studies focus on dishonesty that can benefits to other and not to the liar. For instance, Cadsby et al., (2016) show that, using a die-roll task (Fischbacher and Föllmi-Heusi, 2013), the distribution of the reported die rolls are biased to favor an in-group members at the expense of an out-group member. In addition, Jiang (2014), shows that more pro-social subjects cheat more for out-group than in-group.

To the best of our knowledge, four studies get close from our research question. In the first one (Chakravarty et al., 2015), authors find that subjects are less likely to deceive a friend than an anonymous player while lying may increase their payoff and decrease the profit of the other in a sender-receiver game. In the second one (Feldhaus and Mans, 2014), using a sender-receiver game too and natural identities, authors report no effect of group identity on deception

behaviors. In the third one (Charness et al., 2014), authors investigate the effect of competition for social status on effort. Their results suggest that cheating and sabotage are modulated by the identity of the other group members, although the effect is modest and not systematic. The fourth and last study (Banerjee et al., 2016) shows an effect of social identity (*i.e.*, Indian casts) on misreporting behavior in a die-roll task. One may have noticed that all of the previous studies use natural identities (e.g friends, group based on university membership or Indian casts). In contrast in our experiment we choose to use a minimally induced identity to get a more controlled identity without any concern about a possible selection bias or a social norm embedded in the identity. In light of the lack of clear evidence toward a potential interaction between lying in competition and social identity, we designed a novel experiment based on a competition game in which we induced minimal identity and vary the nature of the lies.

Our experimental design is based on a repeated two-player Tullock contest. The output of the contest is determined by the subjects' score which is the sum of their performance in a real effort task plus an exogenous random shock (*i.e.*, a random number). After the real effort task, subjects are asked to report the random number. More precisely, in one condition subjects have to report their own random number while in another condition they have to report their opponent's random number. In all cases no sanction is applied if subjects decide to misreport the random number. In addition to these two conditions, implemented within subject, we vary, between subjects, the existence or not of a social identity through two treatments. A baseline treatment (No Identity treatment) in which no identity is induced and an Identity treatment in which a minimal identity is induced based on the design by Chen and Li, (2009).

Based on previous results from Rigdon and D'Esterre, (2015), we make the assumption that subjects will misreport their own random number more often than they will misreport their opponent's one. This difference reflects a difference of intrinsic cost between the two actions as the latter directly "harms" the opponent while the former "harms" him indirectly. In addition,

we expect that opponent's identity will matter in the way that subjects will misreport less often when facing an in-group member than when they face an out-group member for both misreporting types.

Interestingly, our results are not totally following our assumptions. We show that subjects misreport their own performance as often as they misreport their opponent's performance. This first result goes against what the study by Rigdon and D'Esterre, (2015) shows. Furthermore, our results show a concern for identity, subjects decide to misreport less often when they face an in-group member than when they face an out-group member. However, opponent's identity only matters when subjects can misreport their own random number but not when they can misreport their opponent's one. We interpret these results as a potential deleterious effect of time repetition leading subjects to adapt their beliefs during the session.

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