

Motivational and Contextual Considerations Concerning the Social Projection Hypothesis

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In a time with research in psychology being dominated by midlevel theorizing and a focus on moderators of established phenomena, Krueger, DiDonato, and Freestone (this issue) have done the field great service by taking an inspiring look at a puzzling paradox: In the prisoner's dilemma (PD), many people cooperate (e.g., Sally, 1995, for meta-analytic evidence). This robust finding is insofar a paradox as from a rational and normative perspective defection should dominate cooperation in the PD because it yields a higher individual payoff regardless of the other party's behavior. Given that in social dilemmas a person's self-interest is incompatible with mutual or the group benefit, most theories consequently consider cooperation in the PD as a behavioral anomaly (e.g., Dawes & Messick, 2000). Several approaches have been developed with the aim to explain the surprisingly high levels of cooperation in social dilemmas and the PD in particular. Whereas the social-normative approaches focus on the role of morality, reciprocity, and benevolence in explaining the cooperative behavior, the cognitive approaches regard cooperation as an error or cognitive illusion.

Krueger et al. (this issue) propose a critical review of these approaches, and after lining out their limitations they present their social projection hypothesis. According to this hypothesis people cooperate inasmuch as they believe others behave as they themselves do. The social projection hypothesis offers a compelling and integrative theoretical explanation based on the theory of evidential decision making (Rapoport, 2003) and research on social projection (Ames, 2004; Krueger, 1998). Although the hypothesis does not predict that everyone cooperates, it posits an increased outcome in social dilemmas as a function of the strength of individuals' projection. According to Krueger et al., projection is a rational strategy that can predict people's cooperation (but also defection) in social dilemmas.

In this commentary, we set out to first discuss research from our own and other laboratories that strengthens the proposed cooperation–projection link. We then raise the question of whether projection is indeed to be considered only as a rational strategy in light of evidence indicating strategic inclinations fueling projection in cooperative contexts. This leads

us to a consideration of motivational factors that may impact projection, and thus, according to the social projection hypothesis, also cooperation. We end by raising some questions regarding the implications of social projection hypothesis for repeated interactions and the role of some contextual factors that may be of relevance in explaining peoples' projective tendencies.

The Social Projection–Cooperation Link

According to Krueger et al. (this issue), several studies support the link between projection and cooperation. Individual differences in the strength of projection predict cooperation in prisoner dilemmas, voting intentions, and intentions to contribute to a public good (Acevedo & Krueger, 2004; Krueger & Acevedo, 2007, 2008). As in all social dilemmas, in the PD a person is faced with a situation of social interdependence. Although Krueger et al. set out to investigate the role of projection for a person faced with the choice to cooperate or defect, in our own research we tested the impact of the type of self-other interdependence (cooperative vs. competitive) on social projection (Toma, Yzerbyt, & Corneille, 2010). In two experiments participants projected their own characteristics, regardless of characteristics' valence, onto their partner more strongly when they expected to cooperate than when they expected to compete. Of interest, participants projected only in cooperation (but not competition) settings when they rated themselves *before* expecting to cooperate or to compete with their partner (structurally resembling a prechoice situation). However, we found evidence for projection in both contexts (though much weaker in competition) when they rated themselves *after* expecting to cooperate or to compete with their partner (structurally resembling a postchoice situation). Together, these findings strengthen the notion that although projection is a pervasive and robust phenomena (Robbins & Krueger, 2005), the strongest relation is to be found between projection and cooperation (for similar evidence at the group level, see Riketta & Sacramento, 2008; for evidence that cooperation activates an integration mindset with self-other similarities being emphasized, see Carnevale & Probst, 1998; Stapel & Koomen, 2001).

Why Do People Project in Social Dilemmas?

The fact that projection and cooperation are strongly related, however, does not answer the more fundamental question, namely, Why do people project in social dilemmas to begin with? Starting with studies on the “false consensus effect” (Ross, Greene, & House, 1977), most research on social perception concluded that people project because they tend to believe that most others behave and choose as they themselves do (Dawes, McTavish, & Shacklee, 1977; Marks & Miller, 1987). Social projection was therefore seen as an irrational and egocentric bias. But Krueger et al. (this issue) refute this idea and propose that projection is a rational and well-suited strategy in social dilemmas. They base their argument on Dawes’s (1990) approach, which demonstrated that in game settings individual players rationally believe their own choice to be that of the majority. Therefore projecting one’s choices or attributes onto others is, in statistical terms, a rational strategy.

We fully agree that in the absence of further information projection constitutes a rational and well-suited strategy. Nonetheless, one might argue that when anticipating cooperating with others, people project differentially as a function of what aspects of the self they deem relevant in a given situation. Indeed, this is what we found in a set of two studies in which we investigated the impact of trait relevance for a specific task on people’s projection of their characteristics onto a cooperative partner (Toma, Yzerbyt, & Corneille, 2012). In cooperative situations, participants projected more on task-relevant traits than on task-irrelevant traits. For example, in a first study we found enhanced projection on traits that participants idiosyncratically judged more task-relevant. In a second study participants projected more on competence than on warmth traits if the to-take-place task was described as intellectual, but they projected more on warmth than on competence traits if the task was described as social. These results suggest that people’s concern with the outcome of cooperation colors their projective representation of the other in a strategic manner. Had participants merely engaged in overall projection they would have projected *all* their characteristics. However, the data clearly show that participants did not project on task-irrelevant characteristics.

Although these findings do not contradict Krueger et al.’s (this issue) contention that social projection may be considered a rational strategy, they do point to potentially biasing motivational and strategic considerations. Specifically, people who overestimate self-other similarity concerning characteristics relevant for a task at hand may overlook that often divergence of competencies is necessary to succeed. Thus, the rational projection strategy may lead to not-so-rational, but sometimes biased, representations and expectations.

Social Projection, a Motivated Strategy in Social Dilemmas

In our opinion social projection may be considered a rational and at the same time motivated process. People may project in social dilemmas not only because they rationally believe that they belong to the majority, but also because projection may serve self-serving motives. However, motivational accounts of social projection have so far received limited attention, with only a few studies supporting a motivated approach to social projection. For example, Arndt, Greenberg, Solomon, Pyszczynski, and Schimel (1999) as well as Pyszczynski et al. (1996) demonstrated that social projection may serve a need for connectedness, which arises when participants’ own mortality becomes salient. Similarly, the desire to be close to one’s partner was found to increase projection and perceived self-other similarity (Slotter & Gardner, 2009). Also in line with the contention that projection may constitute a motivated process, other researchers have conceived social projection as an approach motion on the social dimension of psychological distance (Nussinson, Seibt, Häfner, & Strack, 2010). Moreover, Maner et al. (2005) showed that the arousal of specific motivational states (i.e., having a self-protection or a mate-search goal) leads people to perceive relevant emotional expression (i.e., anger or sexual arousal) in goal-relevant targets, thus providing empirical support for functional projection. Overall, there is some evidence as to projection being motivated and goal dependent (see also Kawada, Oettingen, Gollwitzer, & Bargh, 2004).

The motivated projection approach may reveal meaningful implications for the social projection hypothesis. For example, in the context of social dilemmas people may especially project onto their partner when this serves their goals. Given that Krueger et al. (this issue) demonstrated participants’ judgments to be sensitive to the principle of payoff maximization, it is therefore possible that projection serves people’s goal to succeed, to end up with the maximum payoff in social dilemmas. We recently tested whether people’s projection is influenced by outcome considerations concerning success. Specifically, we (Toma, Corneille, & Yzerbyt, in press) examined whether in interdependent contexts people project the self onto their partner as a function of whether or not they believed to ultimately succeed in cooperation. In these studies, participants rated themselves on a list of traits, then they imagined completing a cooperative task with an unknown partner, and finally they rated the partner on the same list of traits. In two studies (one with imagined cooperation and one involving a real cooperative task), participants projected their own personality traits onto their partner when the probability to succeed was high; on the contrary, we found no evidence of projection when the probability to succeed

was low. Overall, these findings are in line with research on functional projection (Maner et al., 2005) suggesting that people project onto others when this can serve their goals. In our studies, the high chances of succeeding incited participants to see a potential partner as similar to them, but they stopped projecting when they doubted the success of cooperation.

A third study (Toma et al., in press) provided even clearer evidence for projection being a motivated process in the service of people's self-interest and self-image. In this study participants expected a high probability to succeed in cooperation, but they were told that either their own characteristics or those of the partner were responsible for the success. Participants projected only when they were ensured that the success of cooperation was attributed to them, indicating that only when projection came with the benefit of an improved self-image people did project. This suggests that the outcome consideration (concerning success) is a necessary but not a sufficient condition for social projection to occur. People need to believe that their characteristics lead to success in order to project them onto their partner.

This, in turn, reveals the importance of people's egocentric beliefs in social projection. Toma et al. (in press) found that projection could be explained by people's belief according to which partners' similarity with the self leads to success in cooperation. In other words, people seem to assume that similarity is an asset for cooperation, but they approach this similarity in a rather partisan way, namely, by inferring that their partner should resemble them rather than that they should resemble their partner (see also Holyoak & Gordon, 1983). This inference stems from people's self-serving theories about success and competence (Dunning, Leuenberger, & Sherman, 1995) and their self-serving conceptions of traits and abilities (Dunning & Cohen, 1992). In short, people are prone to believe that their personal characteristics and choices are conducive to success and so generally think their personal characteristics should be shared by their partner.

In the context of social dilemmas, if mutual cooperation occurs, people may think this is because they themselves choose cooperation and because they possess those qualities that ensure being successful in the task. This reasoning is in line with work on motivated inference showing that whatever people's attributes are, they come to believe that their attributes are more likely than others' attributes to facilitate desired outcome (Kunda, 1987). Thus, although projection may constitute a rational strategy in social dilemmas, this process may nonetheless be egocentric and self-serving. Those people who pursue self-serving motives are, in our opinion, more prone to use projection and therefore, according to the social projection hypothesis, more willing to cooperate in social dilemmas. An implication of this would be that people

project strategically in those situations that may convey a good self-image. For example, people should be more motivated to project their choices in nice games, because the probability to gain and to satisfy this goal (i.e., a good self-image as being successful) is high.

Contextual Considerations for the Social Projection Hypothesis

The social projection hypothesis proposes a simple theoretical explanation that, according to Krueger et al. (this issue), can account for empirical data in simple scenarios such as in symmetrical, anonymous, two-person one-shot social dilemmas as the PD and is also "likely account for at least of portion of the empirical data in the complex scenario" (p. 6). However, most real-life social dilemmas involve repeated interactions and the opportunity to meet the other party. This raises the question of whether social projection hypothesis can account for cooperation in more face-to-face, repeated interactions. We agree that social projection triggers cooperation in one-shot social dilemmas, but whether cooperation is maintained in repeated interaction is, in our opinion, an open question. One possibility is that initial cooperation will be reinforced with each new interaction because of established mutual trust (De Cremer, Snyder, & Dewitte, 2001). Another possibility is that during repeated interactions people realize that they were wrong in assuming that their partner is similar. Because projection is a pervasive phenomenon, apart from projecting their own choices people may also project more general characteristics like personality traits, preferences, behaviors (Krueger, 1998; Riketta & Sacramento, 2008; Ross et al., 1977). During repeated interactions and face-to-face encounters, people may come to realize that their partner is not as similar as they had imagined. Could be this an obstacle for cooperation? We believe so. As stated previously, projection in interdependence situations is driven by the egocentric belief according to which similarity with the self is beneficial for cooperation (Toma et al., in press). Because the probability that the partner shares similarities on multiple characteristics is objectively low, people should eventually stop projecting their own choice and so mutual cooperation should decrease.

Another important issue is that most social dilemmas involve a notion concerning one's partner's (dis)similarity, group membership, as well as other contextual factors which may impact on whether and to what extent people project. Krueger et al. (this issue) set forth their reasoning for one of these variables: social distance. We agree with them that social distance impacts on the key parameter of projection, notably the probability that the other person will behave like the self (p_r) and that therefore with increases in social

distance the threshold for cooperation should rise. For example, according to the social projection hypothesis, people cooperate less with outgroups because people belonging to outgroups are seen as more distant and thus less similar (Krueger & Zeiger, 1993). However, Riketta and Sacramento (2008) found that in cooperative contexts in which people perceive no conflict between their ingroup and an outgroup, people are also willing to project onto outgroup members (see also Stathi & Crisp, 2008). This suggests that the perceived intergroup relation may interfere with social distance when modulating projection and cooperative behavior in social dilemmas. Stated differently, may an initial notion of cooperation overrule implications stemming from social distance?

Furthermore, perceptions of social distance may also be shaped by contextual variables and mindsets, and thus by factors only weakly or not at all related to one's task partner. For example, one's time perspective and level of construal have been found to impact on social distance, with expectations of temporally remote social interactions and more abstract construal of social targets resulting in increased social distance (Stephan, Liberman, & Trope, 2011; but also see Levy, Freitas, & Salovey, 2002). Thus, would people's level of projection and in turn cooperation in social dilemmas differ depending on whether, for example, they are to cooperate with the same partner today versus 3 weeks from now?

Other researchers have demonstrated that simple metacognitive experiences of ease/difficulty serve as a quick and direct signal of closeness/distance and influence social comparisons, with ease experiences leading to assimilation and difficulty to contrast (Häfner & Schubert, 2009). At the most basic level, whether people start by asking themselves what their partner might do in the social dilemma (comparison focus other → self) rather than first asking themselves what they might do (comparison focus self → other) might already suffice to differentially shape initial similarity estimations, as research on the selective accessibility model shows (Mussweiler, 2003). Also, whether people approach the situation with a similarity or a dissimilarity mindset (which can be unrelated to both the situation or the social target in the situation) is likely to impact on their level of projection via selective (dis)similarity testing (Mussweiler, 2001).

We therefore believe that especially, but not exclusively, when dealing with more real life social dilemmas, the social projection hypothesis should attempt to account for such target-independent variables likely to impact initial similarity notions.

Finally, as one example of how the social projection may improve collective outcomes in real life social and economic exchange, Krueger et al. (this issue) extend their reasoning to empathy gaps. More specifically, they consider the underestimation of the endow-

ment effect (i.e., people owning a good value it more than people not owning it; Kahnemann, Knetsch, & Thaler, 1991) and suggest that here projection facilitates trade. Yet in seemingly stark contrast, van Boven and Loewenstein (2005) stated that their "analysis of social projection in producing costly social behavior implies that reducing social projection would produce more optimal social behavior" (p. 57). Nonetheless, the diverging conclusions may be reconciled by taking into account whom the target of comparison is. If sellers focus on other *sellers*, as Krueger et al. suggest, this may indeed lead to them perceiving their good as less scarce and thus to them demanding lower prices, which in turn facilitates successful sales. If, however, they focus on potential *buyers*, projection of the endowment effect will lead them to demand higher prices than buyers are willing to pay (van Boven, Dunning, & Loewenstein, 2000). Thus, in this case projection reduces trade. Indeed, research from our own lab indicates that apart from factors impacting on similarity, the target of the comparison process may play a crucial role in empathy gaps (Wolfin, Yzerbyt, & Corneille, 2011). Overall, reducing empathy gaps thus depends not only on the role of projection but also on who one projects onto.

Furthermore, empathy gaps in social predictions result from a combination of erroneous predictions of one's own preferences and decisions and an erroneous adjustment of these self-predictions to accommodate perceived similarities or differences between oneself and others (e.g., Van Boven et al., 2000; Van Boven & Loewenstein, 2005). Thus, it is important to note whether the empathy gap stems from an under- or overestimation of self-other similarities. Although projection should reduce the first type of empathy gaps, in the latter case social projection might even exacerbate them (e.g., when people in "cold" states of not being hungry make less favorable evaluations of related impulsive behavior of people in "hot" states engaging in impulsive eating; Nordgren, van der Pligt, & van Harreveld, 2007).

In sum, we believe that the social projection hypothesis as set forth by Krueger et al. (this issue) will benefit from conceptualizing also contextual variables. Apart from building on its integrative potential, this might render the account more ecologically valid and at the same time allow for the generation of more concrete predictions in various social dilemmas and settings.

Conclusion

The target article takes an inspiring and fresh look at the paradox of cooperation in the prisoner's dilemma by proposing the social projection hypothesis and testing some of its unique predictions. We applaud the authors on resolving the paradox without falling into the inconsistencies previous social-normative

and cognitive-bias approaches have been faced with. Although the current approach's fascination lies within its simplicity, we note that solely focusing on symmetrical anonymous two-person one-shot social dilemmas such as the prisoner's dilemma leaves open several questions pertaining to variables that are likely to impact on the assumed processes when dealing with other types of social dilemmas in real life. These variables might be internal (such as motivational or strategic considerations) or external (such as contextual considerations of factors shaping initial notions of social distance). We believe that by taking into account such variables this research will have an impact on many research programs that over time will further develop, test, and refine this approach to cooperation in social dilemmas.

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Note

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