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Inductive Reasoning can Facilitate Tribalism

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Note. We thank the late Jaap Rabbie for standing up for individualism in the midst of a tidal wave of social identity claims.

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Chaque homme porte la forme entière de l'humaine condition.

– Montaigne

Every Jew has two synagogues: the one that he goes to and the one he does not go to.

– Chassidic folk wisdom

If Montaigne's wisdom invokes the unity of the human species, Jewish tradition knows better. There is a synagogue one does not go to, a club one won't be a member of, and a university one must make sure it be known that one does not work there. Homo Heidelbergensis would not wish to be called Mannheimian and a Brunonian – God forbid – must not be mistaken for a Harvardian. This is tribalism in a nutshell: the perceptual, motivational, and behavioral emphasis on the importance of parochial intergroup distinctions that to the outsider seem petty and not worth the trouble.

The synagogue-goer believes that inter-synagogue distinctions are of utmost importance, while to him, intercollegiate distinctions are, as it were, academic. In turn, the Ivy Leaguer puzzles over the different strains of Judaism. Aren't 'they' all the same (Park & Rothbart, 1982)? The psychological import and impact of tribalism is local. Social categorization does not float above the landscape, affecting everyone in a society in the same way. The distinctions dominating the thinking of the politically progressive are different from the distinctions keeping up the devout theist at night. Yet, the progressive and the devout may be united in their contempt for heretics, each in their own way. At the same time, local preferences seem to be universal to the perceivers who proceed to project their parochial version of social categorization onto the population at large. The progressive activist believes that it is political tribalism that carves social nature at the joints, where the theist reserves this role for metaphysical tribes. In their own settings of social categorization, people of any type of tribe are "schematic" (Bem, 1981). They perceive the social world through the lens of their own scheme of categorization, and flexibly so. Meanwhile, they fail to take a step back to see that other perceivers may see a different tribal landscape altogether.

Although the social categorizations that organize social perception may originate as social constructions, their perceptual consequences and the troubles they create cannot be understood without reference to the individual. As such, the very phrase “social categorization” is a misnomer as it suggests the existence of a perceptual and universally valid structure, which is created and maintained at the social or societal level and handed down, in the same way, to all individuals living within this society. To be sure, the sociological perspective is not without merit (Gumplowicz, 1899/1975; Moscovici, 1981). There are perceptual structures, or “stereotypes”, that pervade a society in the sense that they are shared by a large proportion of the population (Krueger, 1996a). These stereotypes are perpetuated by lawful processes of communication (Kashima et al., 2008), learning (Krueger, 1992; Kutzner & Fiedler, 2017), and memory (Rothbart, 1981; Rothbart & Lewis, 1988). These psychological processes occur within individual minds. There is no “group mind” that does the thinking, while individual persons only “receive” thought by virtue of being sentient participants in the group mind. This view, articulated by Ludwig Gumplowicz, was shared by many sociologists (e.g., Halbwachs, 1925; 1947; Mauss, 1925) with a generally Durkheimian (1895) outlook. A psychological perspective, however, adheres to principle of methodological individualism (Watkins, 1952). According to this principle, the individual is the primary unit of analysis regardless of how similar are these processes of information processing and the outcomes they yield may be across different individuals.

The extent to which social perceptions are shared within a population is an empirical question. In research aligned with the sociological tradition, however, Devine (1989) famously and confidently declared that there are cultural stereotypes of races that no one can escape unless they are saved by error variance. Her demonstration of this presumed social consensus regarding cultural stereotypes consisted of a modest survey that failed to yield statistical differences between high- and low-prejudice White respondents in how they viewed Blacks. Devine took this lack of significance as empirical confirmation of what she considered true by definition, the idea that cultural stereotypes

are the same regardless of the perceiver's presence or absence of prejudice. This is essentially a collectivist position.

Devine's (1989) error was one of reification. Cultural stereotypes are not "things" that can be observed independently of what people say they are. Later research showed that people's perceptions of cultural stereotypes of Black and White US Americans are as variable as the respondents' personal stereotypes (Krueger, 1996b). Moreover, the former can be predicted from the latter, arguably thanks to processes of social projection. In other words, when people are asked to describe the cultural stereotype of a particular social group, their own personal beliefs come to mind because of their high accessibility (Clement & Krueger, 2000). From these beliefs people can then infer what the cultural stereotype might look like by projecting their own beliefs onto others.

Logically, of course, the inverse process might also occur. In theory, cultural stereotypes are so robust, so salient, and so baked into people's social perceptions that they come to mind first, only to then allow the person to ask what it is that they themselves believe. This is the presumed process upon which Devine's (1989) theory rested. In her view, cultural stereotypes are highly accessible and thus intuitive ideas, whereas personal beliefs emerge from hard-fought battles to replace those intuitions if they appear to be unacceptable. According to Devine's theory, political liberals are noble but troubled, but they ultimately vulnerable to the charge of hypocrisy. They cannot prove that they truly own the benign beliefs they report to the researchers. This failure to perform an impossible task has, in time, led to a cottage industry asserting that "everyone is biased" (Banaji & Greenwald, 2016).

The projection model assumes that what comes to mind first is the personal belief and that the (perception of) the cultural stereotypes is constructed on this foundation. To construct the cultural stereotypes, the perceiver must ask what most people believe, and the answer to this question requires memory sampling, which, in turn, takes time (Prager & Fiedler, 2021; Prager et al., 2018). The empirical evidence for the idea that reporting one's own beliefs takes less time than reporting the presumed beliefs of the majority is robust (Krueger, 2003). A fallback position for

Devine's collectivist theory is the claim that what people take to be their personal beliefs are, in fact, beliefs presented by their culture (cf. Gumpłowicz, 1899/1975), which the individual has in due course "introjected." This view has some appeal (Rhodes & Baron, 2019). In the Krueger (1996) study, both White and Black respondents reported that the cultural stereotype of Blacks is more negative than the cultural stereotype of Whites. This view cannot explain, however, why perceptions of cultural stereotypes are as variable as personal beliefs and why the former precede and predict the latter.

In the foregoing, we have tried to lay the foundations for an individual-level analysis of the origins of intergroup perception, and hence a psychological perspective on tribalism. The need for such an account is reinforced by the limitations of a purely collectivist approach (Krueger et al., 2006). It will not do to explain tribalism with reference to constructs such as social representations, social identity, or self-categorization. Any attempt to do so quickly runs into problems of tautology. To say that tribes have minds in which individuals participate, and thereby emerge as tribalist creatures is to beg the question of what exactly a tribal mind is. Where and how do tribalist ideas originate? By contrast, explaining tribalism, at least in part, with a theory grounded in methodological individualism is a more interesting and tractable matter. We attempt to provide such an account in this chapter.

The inductive reasoning model

The Inductive Reasoning Model (IRM) has evolved over the years to provide a sufficient, though not exhaustive or comprehensive, account of several social-perceptual phenomena (DiDonato, Ullrich, & Krueger, 2011; Krueger, Freestone, & MacInnis, 2013; Robbins & Krueger, 2005). The two phenomena of central interest to questions of tribalism are intergroup accentuation and ingroup favoritism. The full model also addresses the better-than-average effect in interpersonal perception and ingroup-outgroup differentials in perceptual accuracy (Krueger, Grüning, & Heck, 2023). Two premises lie at the core of the IRM. First, it is assumed, based on ample empirical evidence, that most individuals view themselves in rather positive terms (Krueger, Heck, &

Athenstaedt, 2017). Second, it is assumed, also based on empirical evidence, that individuals project their own attributes, preferences, or behaviors on those others who share their group membership, while not projecting (or projecting very little) to members of groups to which they themselves do not belong (Robbins & Krueger, 2005).

The differential-projection assumption is sufficient to account for intergroup accentuation, while in conjunction the two assumptions of differential projection and self-image positivity can account for ingroup favoritism. The cleanest and clearest demonstration of how the IRM works may be seen in the context of the so-called Minimal-Group-Paradigm (MGP), which is well familiar to students of social psychology. Henri Tajfel (1970) is commonly credited with the creation of the MGP (see Dunham, 2018, for a review), although there were predecessors (Rabbie & Horwitz, 1969). The MGP is typically understood to show both intergroup accentuation and ingroup favoritism, although in this paradigm the two phenomena are conflated. Research participants who have been assigned to one of two groups by arbitrary means quickly come to think that members of their own group are characterized by more desirable attributes than are members of the other group.

Although in their first investigation, Rabbie and Horwitz (1969) did not find these effects unless they gave participants an experience of “common fate” by having them all win (or not win) a small prize depending on the outcome of a coin flip, later experiments found replicable effects (e.g., Howard & Rothbart, 1980). Why did the effects of intergroup accentuation and ingroup favoritism occur, and did they both occur or did one masquerade as the other? Intergroup accentuation simply refers to the perception that two groups, or social categories, are more different than they really are. Ingroup favoritism refers to the perception that the ingroup comprises more desirable attributes than the outgroup. Accentuation in the MRP is achieved all too easily because, thanks to the random nature of categorization the true intergroup difference is zero and the metric allows no negative values. Random error – the trembling hand of the categorizer – is enough to lay the seed of accentuation.

Interestingly, the concept of accentuation arose in the context of experimental studies in which respondents judged non-human objects or stimuli placed along a graded dimension (Tajfel, 1959). Here, an arbitrarily drawn boundary separated the two categories; true differences did exist and were indeed quite large, thus putting the accentuation hypothesis to a tougher test (Tajfel & Wilkes, 1963). Perceived intercategory differences had to be greater than the true or physical differences (Corneille et al., 2002). To then extend the hypothesis to a set of two categories that do not differ in reality might look like a bold move to make an *a fortiori* claim, when in fact the evidence for accentuation is weaker (as it is too easily obtained) in this context. The IRM, as we shall see, provides a solution to this problem.

How did Tajfel explain accentuation and favoritism? Tajfel (1969) famously complained that conventional models of prejudice had nothing to offer but ideas drenched in blood and guts. Accentuation theory – and later social identity theory – he argued were an advance because they sought explanations in basic processes of perception and categorization. Yet, Tajfel left these processes unspecified. The accentuation of group differences may offer greater clarity and inductive power, but this explanation is but a thinly veiled allusion to the operation of (epistemic) needs. A revision of accentuation theory appealed to processes of memory – in contexts in which stimuli needed to be remembered – to account for the phenomenon (Krueger & Clement, 1994a; Krueger et al., 1989).

With regard to ingroup favoritism, Tajfel could do no better than to vaguely appeal to the operation of norms and needs (Tajfel & Turner, 1979). If, however, a norm of or a need for the perception of ingroup superiority must be invoked to explain the finding of perceived ingroup superiority, nothing much has been explained beyond the shadow of tautology. Jaap Rabbie, who used the MGP before Tajfel did, championed an individual-based theory of economic rationality according to which people favor fellow ingroup members because they rationally expect them to reciprocate favors with the greater likelihood than outgroup members do (Rabbie et al., 1989). The IRM can accommodate this finding by noting that perceived trustworthiness is, at least in part, the

result of a projection of one's own, self-ascribed, trustworthiness (Krueger et al., 2008). The more similar others are to the self, the more likely it seems that they will engage in cooperative behavior of the kind that the perceivers themselves are ready to emit (Evans et al., 2021; Krueger et al., 2006).

The IRM accounts for intergroup accentuation with differential projection. Suppose each respondent rates the self (S) on a set of trait adjectives. Next, the respondent estimates the proportion of ingroup members (I) and outgroup members (O) who endorse each trait as self-descriptive. For each respondent, the correlation between S and I judgments indicates projection to the ingroup, and the correlation between S and O judgments indicates projection to the outgroup. Using the multiplication rule, the IRM estimates intergroup accentuation as the correlation between I and O judgments, or $r_{S,I} \times r_{S,O}$. If the empirically observed correlation $r_{I,O} < r_{S,I} \times r_{S,O}$, an accentuation bias seems to exist. The respondent perceives the attributes of the two groups as less positively – or more negatively – than may be expected from differential projection alone. An additional index can be computed by correlating the endorsement proportions for members of two groups and asking whether this “true” degree of intergroup differentiation is less than either $r_{I,O}$ or $r'_{I,O}$. For minimal groups, this true correlation should be 1.0 if it weren't for sampling error or rater unreliability. Thus, a demonstration of perceptual accentuation faces a low bar. This index is more useful for social groups that may in fact differ due to their different cultures, ecologies, or predominant roles.

To account for ingroup favoritism, the IRM notes that positive images are projected more strongly onto the ingroup than onto the outgroup. The positivity of the self-image is given by the correlation between self-judgments (over attributes) and judgments of attribute desirability, or $r_{S,D}$. The perceived positivity of the ingroup is the product of self-positivity and ingroup projection, or $r_{S,D} \times r_{S,I}$, while the perceived positivity of the outgroup is the product of self-positivity and outgroup projection, or $r_{S,D} \times r_{S,O}$. Ingroup favoritism is then the difference between ingroup positivity and outgroup positivity, or $r_{S,D} \times r_{S,I} - r_{S,D} \times r_{S,O}$. Alternatively, we can write ingroup favoritism = $r_{S,D} \times (r_{S,I} - r_{S,O})$.

The IRM offers these estimates for intergroup accentuation and ingroup favoritism under the assumption that “nothing else is going on,” that is, under the assumption that the perceiver has no other relevant social information. As such, the IRM is well-suited to model these phenomena in the context of the MGP. Of course, in more realistic or non-minimal context the perceiver has other information available. Ingroup favoritism, as represented by the difference $r_{I,D} - r_{O,D}$ can then be compared with the estimate provided by the IRM. If, for example, $(r_{I,D} - r_{O,D}) > r_{S,D} \times (r_{S,I} - r_{S,O})$, the IRM underestimates ingroup favoritism. The perceiver might view the ingroup in particularly desirable terms because of comparatively large available samples of positive attributes and differential regression (Fiedler & Krueger, 2012; Fiedler & Wänke, 2009; Krueger, 2000; Moore & Healy, 2008). Compared with ingroup samples, outgroup samples may be small and more vulnerable to memory loss, so that estimates are more likely to regress to the neutral point. Inasmuch as desirability distribution are skewed with a higher frequency of positive attributes, differential regression contributes to ingroup favoritism. We shall shortly return to the issue of differential regression.

In the IRM, intergroup accentuation and ingroup favoritism are related to each other, but they remain conceptually and statistically distinct. Accentuation, that is, $r_{S,I} \times r_{S,O}$, increases (i.e., the product becomes less positive), inasmuch as ingroup projection or outgroup projection diminish. Ingroup favoritism, $r_{S,D} \times (r_{S,I} - r_{S,O})$, increases with the positivity of the self-images unless outgroup projection is equal to or greater than ingroup projection. More importantly, and given a positive self-image, ingroup favoritism increases with the difference between $r_{S,I}$ and $r_{S,O}$. A critical difference between accentuation and ingroup favoritism lies in how they respond to changes in ingroup projection. Greater ingroup projection increases favoritism, but it decreases accentuation.

To illustrate, imagine a self-positivity of $r_{S,D} = .5$, ingroup projection of $r_{S,I} = .4$, and outgroup projection of $r_{S,O} = .2$. Now, intergroup accentuation is estimated as $r_{S,I} \times r_{S,O} = .4 \times .2 = .08$, and ingroup favoritism is estimated as $r_{S,D} \times (r_{S,I} - r_{S,O}) = .5 \times (.4 - .2) = .2 - .1 = .1$. If ingroup projection increases from .4 to .8, accentuation decreases from .08 to .16 (recall that a more positive

product indicates less accentuation or greater perceived intergroup similarity), whereas favoritism increases from .1 to .3 (a more positive difference score indicates greater favoritism). This negative association between accentuation and favoritism holds only if both projection scores are positive. If perceivers were to project negatively to the outgroup, accentuation and favoritism would be positively related. Negative projection to an outgroup is rare (Froni et al., 2010), but has been reported under certain extreme conditions (Cuddy et al., 2007; Denning & Hodges, 2022).

Further considerations

The IRM, as presented here, operates at the level of individual perceivers each of whom judges multiple attributes. The indices of interest are within-person correlations and their derivatives (products and difference scores). As expressions of profile similarity, these correlations come with alternatives. Cadinu and Rothbart (1996), for example, preferred squared difference scores to index self-group similarity to capture what they called self-anchoring. Correlations and squared differences are conceptually independent, but may be expected to be correlated with each other (or show small distances) in practice. Distance metrics comprise not only the aspects of similarity captured by correlations, but also similarities in the variables' means (elevation) and standard deviations (dispersion; Cronbach, 1955). Correlations are cleaner but also less complete than distance metrics (Krueger, 2009), and they allow the recombinatorial operations needed for the IRM, of having a neutral zero point, and of enabling the machinery of (differential) regression.

The IRM uses within-person correlations, when correlations might as well be computed within attributes and across respondents. In classic work on accentuation (Tajfel & Wilkes, 1963) and on projection (Ross et al., 1977) this was the method of choice. The use of within-person correlations springs from the IRM's commitment to methodological individualism, which holds that psychological events occur in individual brains and minds. For the study of projection, Hoch (1987) is remembered as a pioneer of the within-perceiver approach. An alternative version of the IRM, operating on within-attribute correlations, will likely yield similar patterns of results, but their conceptual location will be problematic. If there is, for example, a positive correlation between self-

judgments and desirability judgments for a given trait, there is evidence for self-positivity, but the data rather speak to a group phenomenon (see Sinha & Krueger, 1998, for a discussion and a way to extract individual scores from such data).

For the IRM to be sound, its assumptions must be well justified. One might be satisfied with the empirical support for the assumptions of self-positivity and differential projection. These two phenomena have reached the status of stylized facts and they may be accepted without continual renewal and replication. And yet, facts, however stylized, have a way of begging the question. Why is it that most people have positive self-images and why is it that they project to in- and outgroups differentially?

Let us first consider the question of self-positivity. It is well-established that biometrical variables such as body height are normally distributed. The “average person” is surrounded by a crowd of Gaussian errors (Quetelet, 1835). The joint distribution of men’s and women’s height would be bimodal only if the means of the sexes were more than two standard deviations apart (Schilling et al., 2002). Galton (1869) extended the Gaussian paradigm to the mental world, and psychological tests are conventionally designed to yield a bell curve distribution of results (see Furnham & Robinson, 2022, for a recent example). Why then do self-report measures of happiness (Diener & Diener, 1996), self-esteem (Baumeister et al., 2003), and other sentiments and attitudes show a skew with a hump on the right (good) side and a long tail on the left (bad) side?

Psychophysics offers an explanation. Human sensation is not neatly interval scaled, nor does it have a convenient neutral point. Philosophers from Epicurus to Schopenhauer have warned about the stubbornness of human suffering and the fleeting nature of bliss. It is easier to inflict pain than it is to inflict pleasure.

The worst possible pain is more extreme than the best possible pleasure (save, perhaps, for certain states of spiritual ecstasy). Due to this biologically ordained dominance of the bad (Baumeister et al., 2001), humans and other mammals are more strongly motivated to avoid pain than to find pleasure (Tversky & Kahneman, 1991) – and they do so with some success. However,

great pain is not only a salient event on the sensational spectrum, it is also rare. With the distribution of hedonic states being skewed, most people find themselves above the midpoint of the scale, although only half can be, by definition, better or happier than the median. Assuming that the logic of hedonic sensation extends to the experiences people have with personal attributes of varying desirability, we find that range-frequency theory provides an acceptable account of the stylized fact that most people have positive self-images (Parducci, 1965). They do so for the same reason that they tend to be somewhat happy overall (Wort et al., 2022).

Now to the question of social projection and why it should be differential. Why do we talk about projection at all and not about self-anchoring as some authors do (e.g., Scheller & Sui, 2022; Wang et al., 2022)? The term social projection is traditional, taking its current, non-psychoanalytical, usage from Floyd Allport's (1924) description of individuals in crowds, and indeed tribalism. The term social projection expresses the idea that people, by thinking inductively, come to assume that others are similar to them. By contrast, the term self-anchoring brings to mind – as an anchor, as it were – the heuristic of anchoring-and-(insufficient)-adjustment as introduced by Tversky and Kahneman (1974). The claim that social projection is akin to anchoring processes seen elsewhere in human judgment carries a baggage of additional assumptions that may not always hold. Most notably, the notion of anchoring implies the presence of a bias and a judgmental error that could only be avoided by removing the anchor altogether or by achieving the kind of adjustment that would render these judgments indistinguishable from judgments made without any anchor. Another implication of the anchoring view is that, thanks to the adjustments, group ratings should cluster more tightly around the scale midpoint than self-ratings do. In other words, the standard deviation of group ratings should be smaller than the standard deviation of self-ratings. The more general concept of social projection does predict that group ratings are regressive with regard to self-ratings, but this regressiveness may simply arise from the imperfect correlation between the two (Krueger, 2000). A reduction in the variance of the group ratings is not necessary.

Social projection is essentially a rational form of inductive reasoning, although it may, like any type of reasoning, be overdone. People may project too much (Krueger & Clement, 1994b) or too little (Dawes & Mulford, 1996); it is much to ask for them to get it just right. Why do people project *differentially* to ingroups and outgroups? Arguably, this is what people *should* do. Observed data provide estimates for the properties of the population from which they were sampled. The puzzle is why people project so little to outgroups when those outgroups are subsumed under the same general population as is the ingroup (Krueger & Clement, 1996). Whereas the existence of differential projection *per se* is not contentious, the very low levels of projection to outgroups typically seen is.

The warren of social categories

It does not take much to rationalize a lack of projection to outgroups. People's own attributes, preferences, and behaviors are, after all, no samples of those groups. A moment of reflection, however, reveals that outgroupers are members of shared superordinate categories (Krueger & Clement, 1996). If women project to women and also project to humans, while not projecting to men, are they not "othering" the other sex? Are they not creating a subtype when classifying the male outgroup as an atypical subtype of the larger, inclusive category (Rothbart, Dawes, & Park, 1984; Wenzel, Mummendey, & Walkdzus, 2007)? By the same token, progressives who condemn liberals as enablers of a White patriarchy are impressed by the suite of shared interests at election time. The binding force of a common opponent (or enemy) may deliver strong affect and promote a coordinated response, also in chimpanzees (Brooks, Onishi, Clark, Bohn, & Yamamoto, 2021), but its root cause may simply be a matter of categorization and perception instead of motivation and instinct, what Tajfel dismissed as blood and guts.

What is more, a person who is an outgroup member by one standard of categorization is an ingroup member by another (Clement & Krueger, 2002; Crisp & Hewstone, 2007; Krueger & DiDonato, 2008). A perceiver taking a panoramic view of the social scene would realize that since any person is a fellow ingroup member in innumerable ways, strong social projection to that person is justified –

except on those dimensions that define a category or are known to be closely correlated with it. It makes no sense for a Catholic to project her faith in the Virgin to a Protestant. A panoramic view of social categories remains however an idealization much like Thomas Nagel's (1986) philosophical "view from nowhere." In psychological and social reality, the locally salient categorization operates like a focal stimulus. It dominates perception and judgment. A broader view demands "extensional thinking" and a more powerful reflective cognitive system than most people can muster (Kahneman, 2011).

There are instances in which the attributes of two groups are uncorrelated (or even negatively correlated), that is, there are subtypes that can be readily perceived as such with the aid of Gestalt principles and without a need to appeal to the workings of social construction (Campbell, 1958). Whether what is learned about one group can be generalized to other groups depends on the attribute being studied and on what other background knowledge is available. We may, for example, observe that certain fungi habituate to repeatedly encountered noxious stimuli (Boisseau & Dussutour, 2016), and infer that humans do too, thanks to the shared biochemical properties of living things. At the same time, we recognize that what we learn about human breathing during sleep cannot be generalized to fungi.

The world of human tribes and social categories is unlike the biological world of (fairly) discriminable species. Social psychologists habitually bemoan the messiness of social categories and after this ritualistic exhalation proceed to generalize ("project") the principles of categorization from a neater interspecies world to the carnivalesque world of clans, communes, and countries, in other words "tribes" (Cantor & Mischel, 1979). A walk through a zoo will show anyone where the joints are at which nature is carved. The graded structure of natural categories and the presence of prototypes notwithstanding, few will mistake an elephant for a rhinoceros (Rosch, 1973). It is comparatively easy (for an American) to mistake a Dutchman for a German, and *vice versa*.

Members of social categories often puzzle over whether they belong. Such questions pervade the search for identity (Charness & Chen, 2020). Likewise, observers who one day think

that the definitions of the social categories they care about are crystal-clear find themselves in doubt and search for guidance. Who is a Jew? How many gender categories are there and how ought I define myself? Human nature offers few joints for carving. Because of the indeterminacy of social categories, the boundaries people perceive change over historical time, and sometimes within a day (Rothbart et al., 1997). Hermann Göring, when told that one of his trusted generals was a Jew, famously shouted “Wer Jude ist, bestimme ich!” (I decide who is a Jew!). This elasticity of category definitions and boundaries enables the surrender to the view that it is all just a social construction.

The specter of meaninglessness is to be taken seriously. As distributions of people over attributes are more similar than they are alike, the inductive power of social projection should extend to outgroups more liberally than it does. If, as we suspect, social categories only differ to an appreciable amount on the dimensions selected to demarcate these categories (and dimensions that are highly correlated with these), the MGP shines in a particularly bright light. The standard defense of the MGP as a research strategy is to say that it is reductionist in a good way. By stripping away category content, the MGP reveals the skeleton of human separation. It thereby achieves a high level of internal validity in the study of basic mental processes, which would be otherwise obscured by excess social information. By this logic, external validity is sacrificed. In the MGP, we can see the pure processes at work, but we can’t generalize very well to “real” social groups because there is so much else going on.

Perhaps the MGP holds a surprise. The malleability of social categories, their shifting boundaries, and the mobility of the human animal render many social categories rather minimal, however entitative they may seem and however strong the sense of an essence may be (Rothbart & Park, 2004). Comedian Jerry Seinfeld quipped that the only constant feature of a professional sports team is its jersey. The fans, Seinfeld noted, effectively cheer on a piece of fabric. In this light, Rabbie and Horwitz’s (1969) classification of the participating boys as “the blues” and “the greens” sounds more realist than reductionist. The deminimalization of the minimal group has an important corollary. If social group boundaries are effectively arbitrary with regard to most psychological

dimensions, then the much-bemoaned lack of external validity is a false alarm. If most social groupings rest on fragile criteria, whatever psychological-behavioral finding is reported for one group might be quite generalizable to another. The stern warnings against the generalization of findings to excluded groups are arguably grounded in basic properties of inductive reasoning, and ideas about how it should be done. With this grounding in place, political interests in controlling how researchers collect data have easy play. To demand larger and more diverse samples has the air of moral prudence. The demand for more poses as a demand for better – an inductive fallacy in its own right.

Tribes at war

Allport (1924) planted the flag of methodological individualism in an intellectual climate chilled by the shadow of Le Bon (1895). Crowds, it was generally believed, are both more effeminate and more aggressive than individuals, the common denominator being greater suggestibility and hence reduced impulse control. Freud (1921) accepted and elaborated this view in his analysis of the psychology of the masses, a nuance politely glossed in the English translation of “group psychology.” Across different intellectual traditions, the existence of a separate group mind was an accepted idea. Allport, however, rejected it, arguing that when in a group, people act as they would otherwise, only more so. Experimental social psychology came into being, and yet, a basic mistrust of groups (crowds), from groupthink (Janis, 1972) to myside bias (Stanovich, 2021) remained. Cutting through these traditions and paradigms is the finding that groups are more competitive and aggressive than are individuals (Wildschut et al., 2003).

Instead of refuting this fact, and without disputing any of the myriad explanations that have been offered, we note that the concept of differential projection offers a simple and sufficient explanation. We consider it established that social projection increases the probability of cooperation in a prisoner’s dilemma, and especially in one-shot games played by strangers (Krueger, 2013). The key idea here is that people know they will project before they have chosen a strategy. They know

that once they cooperate (defect) they will have to rationally assume that their chosen strategy is that of the majority (Grüning & Krueger, 2021; Krueger et al., 2012; Krueger & Grüning, 2022).

Now imagine two tribes under the threat of war. Within each tribe, individuals (presumably similar as to being mostly young men) find themselves in a prisoner's dilemma – or public goods dilemma – with all others. To dodge mobilization is literally to defect; to enlist is to cooperate for the sake of the group. A bird's eye view – or a view from nowhere – however reveals that each tribe can be viewed as an actor in a two-tribe prisoner's dilemma. A tribe's successful mass mobilization amounts to an act of defection against the other tribe. A lack of mobilization is an act of cooperation, entailing the efficient collective outcome of peace if chosen by both tribes (Krueger, 2007). The moral implications of this analysis are profound. To what “moral” standard should an individual be held? How is a thoughtful and sensitive person to solve the dilemma between allegiance to the concrete ingroup and respect for a higher-order imperative. We might give some credence to the view that a rejection of moralistic ingroup pressures requires more strength than yielding to the call to arms. To ask “What if they gave a war and no one came,” is, alas, easy to the point of glibness. This is a dilemma after all. For a more detailed and nuanced treatment of the complex issues arising in nested social dilemmas, we recommend the works of the late Gary Bornstein (2003).

Outlook

The current concern about tribalism and the specter of tribes tearing society apart is, in our view, not new; nor is the tension – and tribal antagonism – between the individualists and the collectivists. A prevailing feature of the discussion of this topic is the appeal to grand motives and great feelings – Tajfel's blood and guts. The Pleistocene mind is said to hit the Holocene wall. If so, we either have to go back to the stone age or we need a new mind. Rather than attempt to solve this puzzle, we have offered a modest proposal, trying to understand tribal and intertribal dynamics from the point of view of a mind that has evolved to think inductively, that is, to reasonably go beyond the information given. An inductive mind is a learning mind. Perhaps it can learn to overcome tribalism.

References

- Allport, F. H. (1924). *Social psychology*. Boston, MA: Houghton Mifflin.
- Banaji, M. R., & Greenwald, A. G. (2013). *Blindspot: Hidden biases of good people*. New York, NY: Delacorte Press.
- Baumeister, R. F., Bratslavsky, E., Finkenauer, C., & Vohs, K. D. (2001). Bad is stronger than good. *Review of General Psychology*, *5*, 323–370.
- Baumeister, R. F., Campbell, J., Krueger, J. I., & Vohs, K. (2003). Does high self-esteem cause better performance, interpersonal success, happiness, or healthier lifestyles? *Psychological Science in the Public Interest*, *4*, 1-44. <https://doi.org/10.1111/1529-1006.01431>
- Bem, S. L. (1981). Gender schema theory: a cognitive account of sex typing. *Psychological Review*, *88*, 354–364. <https://doi.org/10.1037/0033-295X.88.4.354>.
- Boisseau, R., & Dussutour, A. (2016). Habituation in non-neural organisms: evidence from slime moulds. *Proceedings of the Royal Society B*, *283*, 20160446.
<https://10.1098/rspb.2016.0446>
- Bornstein, G. (2003). Intergroup conflict: Individual, group, and collective interests. *Personality and Social Psychology Review*, *7*, 129 – 145.
- Bornstein, G., Gneezy, U., & Nagel, R. (2002). The effect of intergroup competition on group coordination: An experimental study. *Games and Economic Behavior*, *41*, 1–25.
[https://doi.org/10.1016/S0899-8256\(02\)00012-X](https://doi.org/10.1016/S0899-8256(02)00012-X)
- Brooks, J., Onishi, E., Clark, I. R., Bohn, M., & Yamamoto, S. (2021). Uniting against a common enemy: Perceived outgroup threat elicits ingroup cohesion in chimpanzees. *PLoS ONE*, *16*(e0246869), 1-17. <https://10.1371/journal.pone.0246869>
- Cadinu, M. R., & Rothbart, M. (1996). Self-anchoring and differentiation processes in the minimal group setting. *Journal of Personality and Social Psychology*, *70*(4), 661–677.
<https://doi.org/10.1037/0022-3514.70.4.661>

- Campbell, D. (1958). Common fate, similarity, and other indices of status of aggregates of persons as social entities. *Behavioral Science*, 3, 14–25.
- Cantor, N., & Mischel, W. (1979). Prototypes in person perception. In L. Berkowitz (Ed.), *Advances in experimental social psychology* (Vol. 12, pp. 3-52). New York: Academic Press.
- Charness, G., & Chen, Y. (2020). Social identity, group behavior and teams. *Annual Review of Economics*, 12, 691–713.
- Clement, R. W., & Krueger, J. (2000). The primacy of self-referent information in perceptions of social consensus. *British Journal of Social Psychology*, 39, 279-299.
<https://10.1348/014466600164471>
- Clement, R. W., & Krueger, J. (2002). Social categorization moderates social projection. *Journal of Experimental Social Psychology*, 38, 219-231. <https://10.1006/jesp.2001.1503>
- Corneille, O., Klein, O., Lambert, S., & Judd, C. M. (2002). On the role of familiarity with units of measurement in categorical accentuation: Tajfel and Wilkes (1963) revisited and replicated *Psychological Science*, 13(4) (2002), pp. 380-383, <https://doi.org/10.1111/1467-9280.00468.x>
- Crisp, R. J., & Hewstone, M. (2007). Multiple social categorisation. *Advances in experimental social psychology*, 39, 163–254.
- Cronbach, L. J. (1955). Processes affecting scores on “understanding others” and “assumed similarity”. *Psychological Bulletin*, 52, 177–193.
- Cuddy, A. J. C., Fiske, S. T., & Glick, P. (2007). The BIAS map: Behaviors from intergroup affect and stereotypes. *Journal of Personality and Social Psychology*, 92(4), 631–648.
<https://doi.org/10.1037/0022-3514.92.4.631>
- Dawes R.M., Mulford M. (1996). The false consensus effect and overconfidence: Flaws in judgment or flaws in how we study judgment? *Organizational Behavior and Human Decision Processes*, 65(3). 201-211.
- Denning, K. R., & Hodges, S. D. (2022). When polarization triggers out-group ‘counter-projection ’

- across the political divide. *Personality and Social Psychology Bulletin*, 48, 638–656.
- Devine, P. G. (1989). Stereotypes and prejudice: Their automatic and controlled components. *Journal of Personality and Social Psychology*, 56(1), 5–18. <https://doi.org/10.1037/0022-3514.56.1.5>
- Diener, E., & Diener, C. (1996). Most people are happy. *Psychological Science*, 7, 181–185. DOI: <https://doi.org/10.1111/j.1467-9280.1996.tb00354.x>
- DiDonato, T. E., Ullrich, J., & Krueger, J. I. (2011). Social perception as induction and inference: An integrative model of intergroup differentiation, ingroup favoritism, and differential accuracy. *Journal of Personality and Social Psychology*, 100, 66-83. <https://10.1037/a0021051>
- Dunham, Y. (2018). Mere membership. *Trends in Cognitive Sciences* 22(9), 780–93. <https://doi.org/10.1016/j.tics.2018.06.004>
- Durkheim, É. (1895). *The rules of sociological method*. Free Press.
- Evans, A. M., Ong, H. H., & Krueger, J. I. (2021). Social proximity and respect for norms in trust dilemmas. *Journal of Behavioral Decision Making*, 35, 657-668. <https://doi.org/10.1002/bdm.2238>
- Fiedler, K., & Krueger, J. I. (2012). More than an artifact: Regression as a theoretical construct. In J. I. Krueger (Ed.), *Social Judgment and Decision Making* (pp. 171-189). New York: Psychology Press.
- Fiedler, K., & Wänke, M. (2009). The cognitive-ecological approach to rationality in social psychology. *Social Cognition*, 27(5), 699–732. <https://doi.org/10.1521/soco.2009.27.5.699>.
- Foroni, F., Pong, V., Rothbart, M., & Pearce, G. (2010). Does the correlation between self and ingroup/outgroup depend on group favorability? *Group Processes & Intergroup Relations*, 13(4), 515–524. <https://doi.org/10.1177/1368430209353632>

- Freud, S. (1921). *Massenpsychologie und Ich-Analyse*. Wien: Internationaler Psychoanalytischer Verlag.
- Furnham, A., & Robinson, C. (2022). Sex difference in estimated intelligence and estimated emotional intelligence and IQ scores, *The Journal of Genetic Psychology*, <https://doi.org/10.1080/00221325.2022.2140025>
- Galton, F. (1869). *Hereditary genius: An inquiry into its laws and consequences*. London, U: MacMillan.
- Grüning, D. J., & Krueger, J. I. (2021). Strategic thinking: A random walk into the rabbit hole. *Collabra: Psychology*, 7(1): 24921. <https://doi.org/10.1525/collabra.24921>
- Gumplowicz, L. (1899/1975). *Grundriss der Sociologie* [The outlines of sociology]. Translated by F. W. Moore, Arno Press.
- Halbwachs, M. (1925). *The collective memory*. Harper & Row.
- Halbwachs, M. (1947). *On collective intelligence*. University of Chicago Press.
- Hoch, S. J. (1987). Perceived consensus and predictive accuracy: The pros and cons of projection. *Journal of Personality and Social Psychology*, 53(2), 221–234. <https://doi.org/10.1037/0022-3514.53.2.221>
- Howard, J. W., & Rothbart, M. (1980). Social categorization and memory for in-group and out-group behavior. *Journal of Personality and Social Psychology*, 38(2), 301–310. <https://doi.org/10.1037/0022-3514.38.2.301>
- Janis, I. L. (1972). *Victims of groupthink*. Boston, MA: Houghton Mifflin.
- Kahneman, D. (2011). *Thinking, fast and slow*. Farrar, Straus and Giroux.
- Kashima, Y., Fiedler, K., & Freytag, P. (2008). *Stereotype dynamics: Language-based approaches to stereotype formation, maintenance, and transformation*. New York, NY: Erlbaum.
- Krueger, J. (1992). On the overestimation of between-group differences. *European Review of Social Psychology*, 3, 31-56.

- Krueger, J. (1996a). Probabilistic national stereotypes. *European Journal of Social Psychology*, 26, 961-980. [https://10.1002/\(SICI\)1099-0992\(199611\)26](https://10.1002/(SICI)1099-0992(199611)26)
- Krueger, J. (1996b). Personal beliefs and cultural stereotypes about racial characteristics. *Journal of Personality and Social Psychology*, 71, 536-548. <https://10.1037/0022-3514.71.3.536>
- Krueger, J. (2000). The projective perception of the social world: A building block of social comparison processes. In J. Suls & L. Wheeler (Eds.), *Handbook of social comparison: Theory and research* (pp. 323-351). Plenum/Kluwer.
- Krueger, J. (2001). The psychology of social categorization. In N. J. Smelser & P. B. Baltes (Eds.), *International encyclopedia of the social & behavioral sciences* (Vol. 21, pp. 14219-14223). Elsevier.
- Krueger, J. I. (2003). Return of the ego—self-referent information as a filter for social prediction: Comment on Karniol (2003). *Psychological Review*, 110, 585-590. <https://doi.org/10.1037/0033-295X.110.3.585>
- Krueger, J. I. (2007). From social projection to social behaviour. *European Review of Social Psychology*, 18(1), 1-35. <https://doi.org/10.1080/10463280701284645>
- Krueger, J. I. (2009). A componential model of situation effects, person effects and situation-by-person interaction effects on social behavior. *Journal of Research in Personality*, 43, 127-136. <https://doi.org/10.1016/j.jrp.2008.12.042>
- Krueger, J. I. (2013). Social projection as a source of cooperation. *Current Directions in Psychological Science*, 22, 289-294. <https://doi.org/10.1177/0963721413481352>
- Krueger, J. I., Acevedo, M., & Robbins, J. M. (2006). Self as sample. In K. Fiedler & P. Juslin (Eds.), *Information sampling and adaptive cognition* (pp. 353-377). Cambridge University Press.
- Krueger, J., & Clement, R. W. (1994a). Memory-based judgments about multiple categories: A revision and extension of Tajfel's accentuation theory. *Journal of Personality and Social Psychology*, 67, 35-47. <https://doi.org/10.1037/0022-3514.67.1.35>

- Krueger, J., & Clement, R. W. (1994b). The truly false consensus effect: An ineradicable and egocentric bias in social perception. *Journal of Personality and Social Psychology*, *67*, 596-610. <https://doi.org/10.1037/0022-3514.67.4.596>
- Krueger, J., & Clement, R. W. (1996). Inferring category characteristics from sample characteristics: Inductive reasoning and social projection. *Journal of Experimental Psychology: General*, *125*, 52-68. <https://doi.org/10.1037/0096-3445.125.1.52>
- Krueger, J. I., & DiDonato, T. E. (2008). Social categorization and the perception of groups and group differences. *Social and Personality Psychology Compass: Group Processes*, *2*, 733-750. <https://doi.org/10.1111/j.1751-9004.2008.00083.x>
- Krueger, J. I., DiDonato, T. E., & Freestone, D. (2012). Social projection can solve social dilemmas. *Psychological Inquiry*, *23*, 1-27. <https://doi.org/10.1080/1047840X.2012.641167>
- Krueger, J. I., Freestone, D., & MacInnis, M. L. (2013). Comparisons in research and reasoning: Toward an integrative theory of social induction. *New Ideas in Psychology*, *31*, 73-86. <http://dx.doi.org/10.1016/j.newideapsych.2012.11.002>
- Krueger, J. I., & Grüning, D. J. (2023). Strategy, trust, and freedom in an uncertain world. In J. P. Forgas, W. D. Crano, & K. Fiedler (eds.), *The psychology of insecurity. The Sydney Symposium on Social Psychology*, *24*. 150-169. Routledge.
- Krueger, J. I., Grüning, D. J., & Heck, P. R. (2023). *Inductive reasoning model*. <https://psyarxiv.com/3yasf/>
- Krueger, J. I., Heck, P. R., & Athenstaedt, U. (2017). The search for the self. In T. Nelson (Ed.), *Getting grounded in social psychology: The essential literature for beginning researchers* (pp. 15-36). New York: Routledge.
- Krueger, J. I., Heck, P. R., Evans, A. M., & DiDonato, T. E. (2020). Social game theory: Preferences, perceptions, and choices. *European Review of Social Psychology*, *31*, 322-353

- Krueger, J. I., Massey, A. L., & DiDonato, T. E. (2008). A matter of trust: From social preferences to the strategic adherence to social norms. *Negotiation & Conflict Management Research, 1*, 31-52. <https://doi.org/10.1111/j.1750-4716.2007.00003.x>
- Krueger, J., Rothbart, M., & Sriram, N. (1989). Category learning and change: Differences in sensitivity to information that enhances or reduces intercategory distinctions. *Journal of Personality and Social Psychology, 56*, 866-875. <https://doi.org/10.1037/0022-3514.56.6.866>
- Krueger, J. I., Ullrich, J., & Chen, L. J. (2016). Expectations and decisions in the volunteer's dilemma: effects of social distance and social projection. *Frontiers in Psychology: Cognition, 7*, article 1909. <https://doi.org/10.3389/fpsyg.2016.01909>
- Kutzner, F., & Fiedler, K. (2017). Stereotypes as pseudocontingencies. *European Review of Social Psychology, 28*(1), 1-49. <https://doi.org/10.1080/10463283.2016.1260238>
- Le Bon, G. (1895). *La psychologie des foules*. Paris: Alcan.
- Mauss, M. (1925). *The gift: Forms and functions of exchange in archaic societies*. Norton.
- Moscovici, S. (1981): On social representations. In J. P. Forgas (ed.). *Social cognition: Perspectives on everyday life*. London: Academic Press.
- Moore, D. A., & Healy, P. J. (2008). The trouble with overconfidence. *Psychological Review, 115*(2), 502-517. <https://doi.org/10.1037/0033-295X.115.2.502>
- Nagel, T. (1986). *The view from nowhere*. Oxford University Press.
- Parducci, A. (1965). Category judgment: A range-frequency model *Psychological Review, 72*, 407-418.
- Park, B., & Rothbart, M. (1982). Perception of out-group homogeneity and levels of social categorization: Memory for the subordinate attributes of in-group and out-group members. *Journal of Personality and Social Psychology, 42*(6), 1051-1068. <https://doi.org/10.1037/0022-3514.42.6.1051>
- Prager, J., & Fiedler, K. (2021). Forming impressions from self-truncated samples of traits—interplay of Thurstonian and Brunswikian sampling effects. *Journal of Personality and Social Psychology*

- Psychology*, 121(3), 474–497. <https://doi.org/10.1037/pspa0000274>
- Prager, J., Krueger, J. I., & Fiedler, K. (2018). Towards a deeper understanding of impression formation: New insights gained from a cognitive-ecological analysis. *Journal of Personality and Social Psychology*, 115(3), 379–397. <https://doi.org/10.1037/pspa0000123>
- Quetelet, A. (1835). *Sur l'homme et sur le développement de ses facultés, ou Essai de physique sociale*. Paris: Bachelier.
- Rabbie, J. M., & Horwitz, M. (1969). Arousal of ingroup-outgroup bias by a chance win or loss. *Journal of Personality and Social Psychology*, 13(3), 269–277. <https://doi.org/10.1037/h0028284>
- Rabbie, J. M., Schot, J. C., & Visser, L. (1989). Social identity theory: A conceptual and empirical critique from the perspective of a behavioral interaction model. *European Journal of Social Psychology* 19, 171–202.
- Rhodes, M., & Baron, A. (2019). The development of social categorization. *Annual Review of Developmental Psychology*, 1, 359–386. <https://doi.org/10.1146/annurev-devpsych-121318-084824>
- Robbins, J. M., & Krueger, J. I. (2005). Social projection to ingroups and outgroups: A review and meta-analysis. *Personality and Social Psychology Review*, 9, 32–47. https://10.1207/s15327957pspr0901_3
- Rosch, E. H. (1973). Natural categories. *Cognitive psychology*, 4, 328–350.
- Ross, L., Greene, D., & House, P. (1977). The "false consensus effect": An egocentric bias in social perception and attribution processes. *Journal of Experimental Social Psychology*, 13, 279–310.
- Rothbart, M. (1981). Memory processes and social beliefs. In D. L. Hamilton (Ed.), *Cognitive processes in stereotyping and intergroup behavior* (pp. 145–181). Hillsdale: Erlbaum.

- Rothbart, M., Davis-Stitt, C., & Hill, J. (1997). Effects of arbitrarily placed category boundaries on similarity judgments. *Journal of Experimental Social Psychology, 33*(2), 122–145.
<https://doi.org/10.1006/jesp.1996.1315>
- Rothbart, M., Dawes, R. M., & Park, B. (1984). Stereotyping and biases in intergroup perceptions. In J. R. Eiser (Ed.), *Attitude Judgement*, (pp. 109-134). Springer-Verlag, New York, NY.
- Rothbart, M., & Lewis, S. (1988). Inferring category attributes from exemplar attributes: Geometric shapes and social categories. *Journal of Personality and Social Psychology, 55*(6), 861–872.
<https://doi.org/10.1037/0022-3514.55.6.861>
- Rothbart, M. & Park, B. (2004). The mental representation of social categories: Category boundaries, entitativity, and essentialism. In V. Yzerbyt, C.M. Judd, & O. Corneille (Eds.), *The psychology of group perception: Perceived variability, entitativity, and essentialism* (pp. 79-100). New York, NY: Psychology Press.
- Scheller, M., & Sui, J. (2022). The power of the self: Anchoring information processing across contexts. *Journal of Experimental Psychology: Human Perception and Performance, 48*(9), 1001–1021. <https://doi.org/10.1037/xhp0001017>
- Schilling, M. F., Watkins, A. E., & Watkins, W. (2002). Is human height bimodal? *American Statistician, 56*(3), 223-229. <https://doi.org/10.1198/00031300265>
- Sinha, R. R., & Krueger, J. (1998). Idiographic self-evaluation and bias. *Journal of Research in Personality, 32*, 131-155. <https://doi.org/10.1006/jrpe.1997.2211>
- Stanovich, K. E. (2021). *The bias that divides us: The science and politics of myside thinking*. Cambridge, MA: MIT Press.
- Tajfel, H. (1959). Quantitative judgement in social perception. *British Journal of Psychology, 50*, 16-29.
- Tajfel, H. (1969). Cognitive aspects of prejudice. *Journal of Social Issues, 25*, 79-97.
- Tajfel, H. (1970). Experiments in intergroup discrimination. *Scientific American, 223*, 96-102.

- Tajfel, H., & Turner, J. C. (1979). An integrative theory of intergroup conflict. In W. G. Austin & S. Worchel (Eds.), *Psychology of intergroup relations* (pp. 33–47). Chicago, IL: Nelson-Hall.
- Tajfel, H., & Wilkes, A. L. (1963). Classification and quantitative judgment. *British Journal of Social Psychology*, *54*, 101-114.
- Tversky, A., & Kahneman, D. (1974). Judgment under uncertainty: Heuristics and biases. *Science*, *185*, 1124–1130. <https://doi.org/10.1126/science.185.4157.1124>
- Tversky, A., & Kahneman, D. (1991). Loss aversion in riskless choice: A reference dependent model. *Quarterly Journal of Economics*, *106*, 1039-1061.
- Watkins, J. W. N. (1952). The principle of methodological individualism. *The British Journal for the Philosophy of Science*, *3*, 186–189.
- Wang, Y. A., Simpson, A. J., & Todd, A. R. (2022). Egocentric anchoring-and-adjustment underlies social inferences about known others varying in similarity and familiarity. *Journal of Experimental Psychology: General*. Advance online publication. <https://doi.org/10.1037/xge0001313>
- Wenzel, M., Mummendey, A., & Waldzus, S. (2007). Superordinate identities and intergroup conflict: The ingroup projection model. *European Review of Social Psychology*, *18*(1), 331-372. <https://doi.org/10.1080/10463280701728302>
- Wildschut, T., Pinter, B., Vevea, J. L., Insko, C. A., & Schopler, J. (2003). Beyond the group mind: A quantitative review of the interindividual-intergroup discontinuity effect. *Psychological Bulletin*, *129*, 698 –722. <https://doi.org/10.1037/0033-2909.129.5.698>
- Wort, F., Walasek, L., & Brown, G. D. A. (2022). Rank-based alternatives to mean-based ensemble models of satisfaction with earnings: Comment on Putnam-Farr and Morewedge (2020). *Journal of Experimental Psychology: General*, *151*(11), 2963–2967. <https://doi.org/10.1037/xge0001237>