

A review of the Krupka-Weber Norm Elicitation Mechanism

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Abstract:

Krupka and Weber's (2013) method for incentivized norm elicitation has been extensively used within the field of experimental economics to empirically estimate injunctive social norms. Due to its widespread use for measuring norms, subsequent work has explored and tested some of the methodological assumptions underlying the approach. Research has tested how well the elicited norms track ex-ante identified norms, the robustness of the approach to competing focal points and to response bias. The approach has been shown to be resilient to these concerns and remains an important methodology for the investigation of norms. Future work should continue to test novel affordances and limits of this method such as the assumption that there exists a single, stable, commonly known norm or the role that social networks play in the emergence, transmission and maintenance of social norms.

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Krupka and Weber's (2013) incentivized norm elicitation is extensively used to empirically estimate injunctive, and to a lesser extent, descriptive social norms.¹ They define injunctive social norms as jointly recognized beliefs among members of a population, regarding the appropriateness of different behaviors. They characterize the social norm by appropriateness ratings over the actions available to a decision-maker and show that the most socially appropriate behavior and the differences in the relative appropriateness of other available actions influence choice.

The method relies on *coordination games* to generate an empirical proxy for the norm. Subjects play a “pure matching” coordination game (Schelling 1960; Mehta et al. 1994) on whether an action is socially appropriate or inappropriate; the incentives of the game reward them for matching their appropriateness ratings to those provided by other respondents.² The aggregation of responses yields a profile of perceived social appropriateness ratings over the set of actions for a particular situation and reference group. Due to its widespread use, subsequent work has explored and tested several methodological assumptions underlying the approach.

Several papers vary the reference group in the coordination game. Burks and Krupka (2012) and Krupka et al. (2022) show that norms elicited using the coordination game are distinct from responses elicited without the coordination game. Vesely and Klöckner (2017) elicit norms when the reference group is, and is not, explicitly defined. Consistent with Chang et al. (2019), they find that “...members of different subgroups do not use subgroup-specific shared perceptions to guide them in the rating task *unless* their subgroup identity is made salient to them...”.³

One concern is that subjects may be using other focal points to coordinate. Krupka et al. (2022) and Burks and Krupka (2012) compare norms elicited using the coordination game to social norms already known to exist (eg. tipping norms for specific situations). They find that the norms elicited using the coordination game track the ex-ante identified norms reliably. Norms elicited without the coordination task or incentive does not reliably do so (see also Chang et al. 2019).

¹ Coleman: “Both the evident importance of norms in the functioning of societies and the importance of a norm as a concept throughout the history of social theory underlie the importance of this concept in contemporary social theory.” (Coleman, Chapt. 10, 1990). Fehr and Fischbacher (2004) state “...the ability to develop and enforce social norms is probably one of the distinguishing characteristics of the human species. It is, therefore, not surprising that social scientists, at least those outside of economics, invoke no other concept more frequently than that of “norms” (Sills, 1968, p. 208).”

² Veselý, Š. (2015) finds that people provide virtually the same responses in incentivized and non-incentivized versions of the Krupka-Weber game. See also a recent working paper by Castillo et al. (2022) who show that respondents report similar social norms in the presence of incentives not to do so. A working paper by König-Kersting (2021) elicits the dictator game norms and systematically changes the salience of incentives by explaining the incentive once (at the beginning) or at each choice during the experiment, removing the financial incentive and either asking for first order or second order beliefs. The author finds no differences in ratings across treatments for the dictator game.

³ See also Gangadharan et al. (2016) who vary the reference group in the coordination task to men, or women, or others with no reference to identity. They use this approach to provide insight into discriminatory behavior. Dimant (2023) varies the reference group to be other participants who either had an aligned or misaligned opinion about Trump.

Lane and Nosenzo (2021) test the assumption that norms create focal points. They employ vignettes that describe, for example, someone exceeding the speed limit and explicitly introduce a competing focal point when they identify what constitutes legal behavior. They find that subjects do not appear to use legality as a coordination strategy. Fallucchi and Nosenzo (2022) and Krupka et al. (2017) test whether ratings are sensitive to individual characteristics, beliefs about the descriptive norm, or salient features of the choice environment and find that they are not.

Lane and Nosenzo (2021) offer a comparison of the coordination game methodology and a sequential opinion-matching methodology (e.g., Bicchieri and Xiao 2009; Bursztyn et al. 2020a; Bursztyn et al. 2020b).⁴ The sequential opinion-matching method incentivizes subjects to guess the most prevalent opinion about acceptable behavior among other subjects who have already completed the study.⁵ They find consistency between the two different elicitation methods. However, the latter approach measures first-order beliefs about first-order beliefs rather than second-order beliefs that are conceptually aligned with the notion of norms.⁶

Erkut et al. (2015) test whether responses vary if provided by subjects who read about the dictator game or just played it.⁷ They find that norms of the dictator game elicited from “stakeholder” subjects (i.e. those who play and do the norm elicitation task) and “spectators” are similar. d’Adda et al. (2016) use a within-subject design to elicit norms before or after subjects make choices and find no evidence of order effects.⁸

Theories of norm following tend to assume that there exists a single, stable, commonly known social norm for a given choice setting. Groenendyk et al. (2022) find that individual-level variation in reported norms between people and within people across time has an interpretable structure using a series of latent transition analyses (LTA). They also incorporate network analysis to enrich our understanding of the role of reference groups. However, the coordination game approach may not be well suited when there is no consensus about the norm⁹ or distinguishing when personal normative beliefs diverge from norms (Behnk, S. et al. 2022; Bursztyn et al., 2020b; Erkut and Reuben 2019). Future work will be required to test further affordances and limits of this method.

⁴ See also Bicchieri and Chavez (2010) and Bicchieri and Dimant (2019).

⁵ In sequential opinion matching, a first group of subjects reports their personal beliefs about how appropriate the behavior described in a vignette was. Responses are not incentivized and they are indicated on a four-point scale. In a second condition, different subjects are asked to guess the most common appropriateness judgment among the first group. Yet a different approach to eliciting norms is to use third party advisors (Schram and Charness, 2015), however, this approach is more challenging to adapt to the study of identity-dependent norms.

⁶ As Nosenzo & Görges (2020) note, first- and second-order beliefs also need not coincide.

⁷ Biases that can result from eliciting norms from the same subjects who played the games are sometimes referred to as “consistency bias” and “social desirability bias”.

⁸ Schmidt et al. (2022) note that the Krupka and Weber approach is useful to elicit beliefs about questions without ground truth (eg. hypothetical, counterfactual or far-future events) while still providing monetary incentives to induce cognitive effort.

⁹ Using econometric techniques, one can use the data to shed light on situations where there are multiple norms (Fallucchi and Nosenzo, 2022; Fromell et al. 2021).

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