

Qualitative judgments, quantitative judgments and norm-sensitivity

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Commentary on Joshua Knobe's BBS target paper 'Person as scientist, person as moralist'

Abstract: Moral considerations and our normative expectations influence not only our judgments about intentional action or causation, but also our judgments about exact probabilities and quantities. Whereas those cases support the competence theory proposed by Knobe in his paper, they remain compatible with a modular conception of the interaction between moral and non-moral cognitive faculties in each of those domains.

Joshua Knobe makes three main claims in his paper. The first is that the influence of moral considerations on our judgments “does not appear to be limited to the concept *intentionally*, nor even to closely related concepts such as *intention* and *intending*” (sect.2.2). Thus it appears to affect our judgments about causation, knowledge, desire and a number of other attitudes or processes. Knobe’s second main claim is that the asymmetry found by Knobe and colleagues in people’s judgments for such cases depends essentially on our normative evaluation with regard to counterfactual actions or situations; namely on what should or could have been the case. Knobe’s third claim and fairly radical conclusion, finally, is that we cannot make “a clear division whereby certain psychological processes are devoted to moral questions and others are devoted to purely scientific questions” (sect. 5). In this commentary I would like to add further evidence in support of Knobe’s first two claims, but to express why I think one should be sceptical of the main conclusion he draws from them.

In agreement with Knobe’s first claim, it may be pointed out that moral considerations influence at least two other general competences that would appear *prima facie* to be non-moral and that are not mentioned in Knobe’s paper, namely our qualitative evaluations of precise numerical *probabilities* and our qualitative evaluation of precise *quantities* (Egré 2010). The evaluation of identical numerical probabilities is known to be subjectively influenced by how detrimental the outcome is perceived. The effect has been called the *severity bias* in the psychological literature (see Weber et Hilton 1990, Bonnefon et Villejoubert 2006, Pighin et al. 2009).

For instance, Pighin et al. 2009 run an experiment comparing the evaluation made by four groups of pregnant women of a scenario in which a gynaecologist tells Elisa, a thirty-year old pregnant woman, that “there is a risk of [1 in 28 ; 1 in 307] that your child will be affected by [Down Syndrome; Insomnia]”. Subjects in each group were asked to rank the probability communicated for each disease on a 7-point scale ranging from “extremely low” to “extremely high”. What their study found is that when the numerical risk for the two conditions was made the same, the women still ranked the probability of the child getting Down’s syndrome as significantly higher than for insomnia. Even the probability of 1/307 for the child getting Down Syndrome was ranked higher than the probability 1/28 for insomnia. Moreover, subjects were asked to rank each disease according to how severe they judged it to be. Their assessments of probabilities were found to correlate with those probability judgments

F. Cova and I looked for the same effect regarding people’s qualitative evaluation of identical quantities in terms of the word *many*. Subjects were given a scenario reporting that a fire had broken out in a school in which there were 10 children, 5 of which died in the fire, and 5 managed to escape. Each subject had to judge true or false the two sentences: “many children [perished in / survived from] the fire”. Irrespective of the order in which the sentences were presented, the vast majority of subjects agreed that many children had perished, but did not agree that many children had survived, despite the identical quantities and ratios involved.

Such cases comport with Knobe's model and main explanatory hypothesis in his paper (see also Pettit and Knobe 2009), namely they suggest that our subjective evaluation of quantities or probabilities, just like our evaluation of causation or intentional action, is sensitive not only to extensive magnitudes or processes, but to *normative expectations* that are highly context-dependent and that vary with the kind of outcome under consideration. For instance, it is known from the semantics literature that our judgments concerning whether *many As are Bs* are not purely *extensional* (see Sapir 1944, Fara 2000, Lappin 2000): that is, as the data with Cova confirm, those judgments do not merely depend on the cardinality of As and Bs and on the ratio of As to Bs, but they *intensionally* depend on the kind of entities referred to by A and B, and on what is taken to be either normal or more desirable relative to context.

In agreement with Knobe's remark about the importance of counterfactual evaluations, presumably we judge that *many children died* because we reason that in a better and alternative course of events, *fewer children would have died* (and as a result, that *more would have survived*). Similarly, how high a probability value is considered for an outcome may depend on how much more probable or less probable we consider that outcome could be or should have been.

It would be quite doubtful, however, to infer from those considerations that we cannot distinguish between the moral processes that influence our qualitative evaluation of quantities or probabilities, and the non-moral processes that underly our scientific judgments based on numerical quantities or probabilities. Indeed, when it comes to having a scientific attitude towards relative or absolute quantities, our evaluation of quantities can safely rely on our non-moral capacity to compare extensional magnitudes (contrast 'did *many* children die?', which calls on our subjective and moral evaluation, with '*how many* children died?', which can be given an exact and objective answer).

More generally, I wish to make the qualification that while sensitivity to normative expectations is most likely directly encoded in the *lexical semantics* of most of our *qualitative* expressions (see Kennedy 2007, Egré 2010), including for vague concepts such as *knowing*, *desiring*, *causing*, and so on, this remains compatible with the hypothesis which Knobe appears to reject in his paper. That is, it is compatible with the view that our *cognitive competence* in each of those domains works in a modular way, based on the interaction of nonmoral evaluative faculties and moral evaluative faculties.

From Knobe's interesting data and examples, it would be safer to conclude that our folk concepts of causation, knowledge or desire are irreducibly norm-sensitive, without that impugning the division between moral and nonmoral cognition.

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