

The Fragmented Folk: More Evidence of Stable Individual Differences in Moral Judgments and Folk Intuitions

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Abstract

In a series of five experiments, we demonstrate that moral judgments and folk intuitions are often predictably fragmented. Drawing on the domains of ethics and action theory, we illustrate ways in which judgment tends to be associated with stable individual differences such as personality traits and reflective cognitive styles. We argue that these individual differences pose several unique challenges as well as provide opportunities for further theoretical development in the emerging field of experimental philosophy. Implications are briefly discussed.

Keywords: moral judgment; folk intuitions; ethics; action theory; experimental philosophy; individual differences; adaptive judgment and cognition.

Experimental Philosophy

Experimental philosophy uses psychological methodologies to uncover what ordinary people think about philosophically and in many cases psychologically important issues. These findings are then used to refine and inform theoretical debates. Nadelhoffer and Nahmias think there are at least three key projects for experimental philosophy: (a) “to explore in a controlled and systematic manner what intuitions ordinary people tend to express and examine their relevance to philosophical debates” (2007, p. 126); (b) “to try to determine how these intuitions are generated” (2007, p. 127); and (c) “to show that some of the methods and techniques that philosophers working in the analytic tradition have taken for granted are threatened by the gathering empirical evidence concerning both the diversity and the unreliability of folk intuitions” (2007, p. 128).

To put experimental philosophy in context, some philosophers take themselves to be analyzing philosophically interesting folk concepts. For example, Fred Adams (1986) argues that the following condition captures part of *the* folk concept of intentional action: If one intentionally performs an action *A*, then one intends to *A*. Likewise, Michael Smith (1994) claims all competent users of moral language (e.g. 'good', 'right', 'wrong') think that it is a platitude that those who judge that it is wrong to perform an action *A* will have some motivation not to *A*. In these ways, the traditional orthodoxy in philosophy tends to

assume uniformity of intuitions for those who are competent and error free.

The philosophical claims made by Smith and Adams are substantive and empirically testable. However, Adams and Smith do not provide evidence for their claims from controlled studies. Rather, their preferred method, which is typical of many traditional philosophers, is to rely on “armchair theorizing” about the folk. For example, some philosophers think, as Frank Jackson (1998) does, that their intuitions about a particular case are “typical and so can generalize from it to” intuitions others have (p. 37). Experimental philosophy is skeptical of this assumption, and therefore attempts to provide evidence for theoretically interesting empirical claims.

The majority of research in the emerging field of experimental philosophy has relied on survey and scenario based empirical methods. These surveys are meant to probe non-philosophers' intuitions about philosophically relevant topics in service of a-c. Indeed, these methods have provided an important first step in understanding folk intuitions. However, we argue that other methodologies used in the social sciences, particularly those from cognitive and experimental psychology, have been underutilized and are increasingly necessary for further theoretical refinement. To illustrate, there are many questions about folk intuitions that current surveys are simply ill-suited to answer such as: (1) What are the cognitive processes that generate intuitions? (2) Do folk intuitions reflect folk concepts? (3) Do all folk have the same intuitions and differ only as a result of occasional errors?

In this paper, we review five experiments from a research program we have developed using an individual differences and process tracing approach. Our work is among some of the first to demonstrate that in diverse domains folk intuitions tend to be fragmented in systematic and theoretically interesting ways. In contrast to philosophical orthodoxy, evidence indicates that there is not necessarily a “the folk,” but instead that stable, identifiable groups of people express different intuitions and judgments about theoretically important topics. As an introduction to our program, we have selected and briefly review five recent studies from two of these domains: (i) ethics (e.g. moral judgments) and (ii) intentional action (e.g. theory-of-mind).

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Unfortunately, as a result of space constraints, and considering our desire to include a wide variety of new findings and issues, we have limited the discussion of our theoretical motivations (e.g. adaptive behavior and cognition) and specific implications for each study (for detailed discussions please see Cokely, 2007; Cokely & Feltz, submitted; Feltz, in press; Feltz & Cokely, 2007; submitted).

Ethics

Ethics is a broad field of philosophy that attempts to give answers to issues such as what makes a right action right or whether there are objective moral facts in the world. Nichols (2004) performed a series of experiments that tested, among other things, a claim by Smith (1994) that “the folk” are objectivists about ethics. For example, when two people make contradictory moral statements, at most one of the statements can be true. Nichols found that while most people express objectivist intuitions, there were a substantial number of people who expressed non-objectivist intuitions about paradigmatic moral violations (e.g., hitting another person because one feels like it).

We hypothesized that differences in personality might moderate objectivist intuitions. Specifically, Dollinger and LaMartina (1998) report that people who are higher in the personality trait openness to experience tend to be more receptive to experience, less likely to reason in accordance with accepted societal standards, are more individualistic, and do not take for granted information passed on by authority (1998, p. 351). Thus, we thought that this individual difference would be related to those who also express non-objectivism about ethics. Those who are highly open to experience might be more likely to think that morals predominate in one's society are mistaken or otherwise flexible, and hence would be more open to the possibility that there is no single, correct ethical answer.

Experiment 1

We gave 115 volunteers in lower level philosophy classes at Florida State University a brief Big Five personality measure (Gosling, Rentfrow, & Swann, 2003) along with the following scenarios from Nichols (2004):

Moral: John and Fred are members of different cultures, and they are in an argument. John says, “It’s okay to hit people just because you feel like it,” and Fred says, “No, it is not okay to hit people just because you feel like it.” John then says, “Look you are wrong. Everyone I know agrees that it’s okay to do that.” Fred responds, “Oh no, you are the one who is mistaken. Everyone I know agrees that it’s not okay to do that.”

World: Teresa and Heather are members of different cultures, and they are in an argument. Teresa says, “The earth is flat,” and Heather says, “No, the earth is not flat.” Teresa then says, “Look you are wrong. Everyone I know agrees that it is flat.” Heather responds, “Oh no, you are the

one who is mistaken. Everyone I know agrees that it is not flat.”

Participants could respond that either one of the participants in the debate was right, or they could respond that neither one was right because there is no fact of the matter. Those who responded that one of the two people in the debate was right were coded as objectivists, and those who responded that neither party to the debate was right were coded as non-objectivists.

Replicating Nichols, we found that a substantial number of people ($N = 79$, 69%) gave a non-objectivist answer to the moral scenario, while a minority ($N = 36$, 31%) gave the objectivist answer, a significant result $\chi^2(1, N = 115) = 16.078, p = .001$. Confirming previous research, we also found that significantly more people are objectivists about physical facts ($N = 94$, 81%) than those who are not ($N = 22$, 19%) $\chi^2(1, N = 116) = 44.690, p = .001$.

Our primary concern was if stable individual differences accounted, at least in part, for these responses. They did. Those who scored high in openness to experience were much more likely to respond as non-objectivists to both Moral and World. Splitting the groups into upper and lower quartiles (extreme groups analysis), only those who were high in openness to experience ($N = 28$) were likely to give non-objectivist answers as opposed to those who were low in openness to experience ($N = 31$). Of those high in openness to experience, 23 gave a non-objectivist answer whereas 5 gave an objectivist answer, a significant difference $\chi^2(1, N = 28) = 11.571, p = .001$. For those who were low in openness to experience, there was no significant difference between those who gave a non-objectivist answer ($N = 15$) and those who gave the objectivist answer ($N = 16$) $\chi^2(1, N = 31) = 0.032, p = .86$. No other individual differences were reliably related to responses in Moral or World ($F_s < 1$). Thus, differences in personalities tended to be associated with different moral intuitions.

Experiment 2

In Experiment 1, openness to experience identified, to a large extent, the group of people who commonly seem to have non-objectivist intuitions. However, other personality traits can also be related to similar moral judgments when those judgments are related to the experiences, goals, and sensitivities of that group. For example, we hypothesized that if we changed the nature of the action so that it is not directly harming another person, but still could be perceived as a social harm, we could produce a different set of intuitions for some people (i.e. extraverts).

In this experiment, we had three hypotheses. First, because the personality trait extraversion is associated with less tightly controlled emotional reactions, sensitivity to social cues, and differential processing of social information (Akert & Panter, 1988), we thought that they would be differentially affected (as compared to introverts) by a disgusting *socially abnormal* act that does not harm another. Specifically, we predicted that individuals who were high in the personality trait extraversion would also think that

socially abnormal behaviors are harmful, even when they do not involve a specific harm to another person. Second, we hypothesized that those who are highly extraverted would be more likely to say that action is morally wrong. Third, we hypothesized that the overall majority would give non-objectivist responses to the nature of the dispute because it appears to be a conventional violation and not a paradigmatic, harm based moral violation.

To test our hypotheses, we adapted a case from Haidt, Koller, and Dias (1993) to the Nichols' (2004) framework.

Harmful chicken: John and Fred are members of different cultures. They are in an argument about a newspaper article describing a man, Barney, who bought a frozen chicken, took it home, defrosted it, had sex with it, and then ate it. The article notes that doctors interviewed said there was nothing medically dangerous about having sex with and then eating the chicken (for example, salmonella is not transmitted via sex and the chicken was very well cooked). John says, "It's okay to have sex with a chicken and then eat it just because you feel like it," and Fred says, "No, it is not okay to have sex with a chicken and then eat it just because you feel like it." John then says, "Look you are wrong. Everyone I know agrees that it's okay to do that." Fred responds, "Oh no, you are the one who is mistaken. Everyone I know agrees that it's not okay to do that."

Participants were 162 volunteers from lower level philosophy classes. Participants were given three questions. First, they were asked if one of the disputants is right or there is no fact of the matter. They were also asked if the action was harmful. Finally, they were asked if the action was wrong.

As predicted, we found that extraversion was related to harm judgments $r(145) = .24, p = .003$, supporting our first hypothesis. We also found that those who were higher in extraversion thought the action was wrong $r(146) = .23, p = .005$, supporting our second hypothesis. Finally, the vast majority (75%, $N = 123$) of participants expressed non-objectivist intuitions about the dispute between John and Fred, providing considerable evidence for our third hypothesis. Hence, we have shown that we can manipulate moral intuitions by altering the nature of the moral violation, demonstrating that intuitions are systematically related to individual social sensitivities predicted by extraversion.

Experiment 3

The results from Experiments 1 and 2 provide some evidence that individual differences in personality can predict responses in some ethically relevant scenarios. However, non-personality based individual differences can also, in certain situations, play a role in moral judgments.

Nadelhoffer and Feltz (in press) found an Actor-Observer bias with the Trolley problem. People judged it was more permissible for a third person to throw the switch to divert the trolley from killing five people to killing one than it is for themselves to divert the trolley.

We hypothesized that those who were highly cognitively reflective would have some different judgments than those

who were less cognitively reflective. Specifically, we thought that all individuals would judge that one was somewhat obligated when in the third person, as is seen in previous research. However, we predicted that those who were more cognitively reflective might also be more sensitive to the different perspectives. Previous research suggests that people who are highly reflective search the problem space more thoroughly and elaborate more on alternatives and options (Cokely, 2007). Accordingly, we predicted that when a situation involved something participants were highly knowledgeable of and invested in (i.e. themselves), this "expertise" might interact with reflectiveness such that reflective individuals would also be more likely to find self serving reasons to kill a person and thus would be more likely to report feeling obligated to kill.

To test this hypothesis, we used cases well-known in the literature and roughly mirror the classic Trolley problem cases.² We also gave participants a Cognitive Reflection Task (CRT) that presents participants with three problems with intuitively attractive yet wrong answers (Frederick, 2005). Participants were 60 volunteers from lower level philosophy classes at FSU who were given one of the following scenarios along with a Cognitive Reflection Task.

First/Third Person Jim: You (Jim) find(s) yourself (himself) in the central square of a small South American town. Tied up against the wall are a row of twenty natives, most terrified, a few defiant, in front of them several armed men in uniform. A heavy man in a sweat stained khaki shirt turns out to be the captain in charge and, after a good deal of questioning which establishes that you (Jim) got there by accident while on a botanical expedition, explains that the natives are a random group of the inhabitants who, after recent acts of protest against the government, are just about to be killed to remind the other possible protesters of the advantages of not protesting. However, since you (Jim) are (is) an honored visitor from another land, the captain is happy to offer you (him) a guest's privilege of killing one of the natives yourself (himself). If you (Jim) accept(s), then as a special mark of the occasion, the other natives will be let off. Of course, if you (Jim) refuse(s), then there is no special occasion, and Pedro here will do what he was about to do when you (Jim) arrived, and kill them all. With some desperate recollection of schoolboy fiction, you (Jim) wonder(s) whether if you (he) got hold of the gun, you (he) could hold the captain, Pedro and the rest of the soldiers to threat, but it is quite clear from the circumstances that nothing of that kind is going to work: any attempt at that sort of thing will mean that you (Jim) will also be killed along with all of the natives (including yourself [himself]). The men against the wall, and the other villagers, understand the situation, and are obviously begging you (him) to accept. What should you (Jim) do?

Participants were asked the following yes/no question:

Do you think that in these circumstances you (Jim) are (is) morally obligated to shoot and kill the one in order to save the others?

²We thank Thomas Nadelhoffer for creating these cases.

An analysis of variance (ANOVA) revealed a trend toward the predicted interaction between CRT (high, low) and frame (self, Jim), $F(1, 58) = 3.006, p = .09, \eta_p^2 = .05$. Those who were high in CRT thought that in the first person frame one was more obligated to kill than when in the third person frame. Planned analyses next examined the framing conditions independently. There was a large significant difference for high CRT in the second person frame $F(1, 28) = 10.698, p = .003, \eta_p^2 = .28$, but not in the third person frame ($F < 1$). Table 1 represents the mean responses (higher numbers reflect stronger obligation agreement).

Table 1: Mean Moral Obligation Rating

	Low CRT	High CRT
Second Person	.41	.92
Third Person	.53	.62

These results suggest that differences in cognitive styles associated with reflection and elaborative information processing also play a role in moral judgments.

Action Theory

According to Mele, “Central to the philosophy of action is a concern to understand *intentional* action” (1992, p. 199). As well, in psychology, theory-of-mind, which is by many accounts a uniquely human capacity, is argued to be essential to modern social functioning and cultural development. One interesting experimental finding is the *intentional action side effect asymmetry*. Side effects are foreseen but not intended consequences of an intended action. The asymmetry is the phenomenon where people tend to judge that a good side effect is not brought about intentionally whereas people tend to judge a bad side effect is brought about intentionally. The classic examples that generate the asymmetry are Knobe's (2003) chairman cases:

Harm/Help: The vice-president of a company went to the chairman of the board and said, “We are thinking of starting a new program. It will help us increase profits, but it will also harm (help) the environment.” The chairman of the board answered, “I don't care at all about harming (helping) the environment. I just want to make as much profit as I can. Let's start the new program.” They started the new program. Sure enough, the environment was harmed (helped). (Knobe, 2003, p. 191)

Cushman and Mele (in press) and Nichols and Ulatowski (2007) have found evidence that there are groups of responses that people tend to give to the chairman cases. These responses fall roughly into thirds—about a third of participants think the help and harm are brought about intentionally, a third think neither are, and a third think the harm is brought about intentionally but not the help. They conclude that it looks like there are different concepts of intentional action or interpretations of the word ‘intentionally’.

Others hypothesize that the Knobe effect is due to affective biasing (Malle 2001; Nadelhoffer 2004). Negative affect is generated in Harm because the chairman does not care about something he obviously should (i.e., harming the environment). It is argued that because saying that the harm is brought about intentionally allows us to blame the chairman more, participants say that the chairman harmed the environment intentionally. In Help, however, participants do not want to praise the chairman for bringing about the help because he does not care at all about doing so. Because additional praise for good actions that are done intentionally is warranted, people are less likely to say that the chairman helped the environment intentionally.

Intrigued by these results, we hypothesized that extraverts in particular may disproportionately make up the asymmetrically responding group identified by Cushman and Mele (2007). Research suggests that the asymmetric effect can be largely attenuated when the chairman is portrayed as a more socially concerned individual who “regretfully” brings about a bad side effect (Sverdlik, 2004). As noted, because extraverts are socially sensitive and emotionally expressive, we expected that they would also show a greater asymmetry in the chairman cases. So, we tested this hypothesis by giving participants Knobe (2003) chairman style cases along with a variety of other general individual difference measures.

Experiment 4

Ninety-five students at Florida State University participated for partial course credit. All participant's sex, age, and self-report SAT scores were collected along with (1) the brief Big Five personality questionnaire (Gosling, Rentfrow, & Swann, 2003), (2) the brief self-control measure (Tangney, Baumeister, & Boone, 2004) (3) the operation-span (OSPAN) working memory task (Turner & Engle, 1989), (4) the CRT (Frederick, 2005) and (5) the modified Knobe survey (Cushman & Mele in press), which was counterbalanced for Help-Harm orders.

A one factor repeated measures ANOVA revealed the expected, large side effect asymmetry, $F(1, 93) = 148.24, p = .01, \eta_p^2 = .61$. This finding was qualified by the replication of another known effect (Feltz & Cokely, 2007). ANOVA revealed an order (Harm first, Harm second) by asymmetry interaction, $F(1, 93) = 7.71, p = .01, \eta_p^2 = .08$. When Help was presented first, the Help ($M = 2$) and Harm asymmetry ($M = 4.2$) was significantly smaller as compared to the Help ($M = 2$) and Harm ratings ($M = 5.8$) when Help was presented second (for a more detailed discussion see Feltz & Cokely, 2007, submitted).

Next, we conducted a stepwise multiple linear regression with the side effect asymmetry as the dependent variable and the Big Five, brief self-control, OSPAN, SAT, CRT, and sex as independent variables. As anticipated, the analysis revealed a significant effect of only one variable, extraversion, $\beta = .29, t = 2.46, p = .02, R^2 = .08$ (all other variables, $F < 1$). A hierarchical linear regression was next constructed with the same dependent variable and with

independent variables including (1) Help/Harm order (to control for the observed order effect) and (2) extraversion. The full model was a significant predictor of the asymmetry, $F(1, 89) = 7.71, p = .001, R^2 = .15$ and after controlling for the order effect extraversion continued to account for unique variance, $\beta = .27, t = 2.68, p = .01, R^2_{\text{change}} = .07$.

Finally, planned analyses split extraversion scores into rough top and bottom quartiles. ANOVA revealed a large significant extraversion (low, high) by asymmetry interaction, $F(1, 38) = 8.11, p = .01, d = .9$. The side effect asymmetry was much smaller for participants who were low in extraversion (Help $M = 2.7, SD = 1.6$; Harm $M = 4.7, SD = 2.1$) as compared to those high in extraversion (Help $M = 2.1, SD = 1.8$; Harm $M = 6.2, SD = 1.1$). Neither sex nor order interacted with the asymmetry ($F < 1$). As predicted, the side effect asymmetry was larger for extraverts. In contrast, people who were low in extraversion had a remarkably reduced asymmetry and sometimes had qualitatively different intuitions in these cases. This finding is consistent with the hypothesis that the asymmetry results, at least in part, from a judgment bias, i.e. extraverts are more influenced by the negative affect in Harm (see Cokely & Feltz, submitted, for additional discussion and data).

Experiment 5

We thought that we could manipulate extraverts' intuitions about the chairman case by framing the chairman's decision. Specifically, we thought if we included information about a chairman's choice and framed that choice in more and less preferred ways (i.e. gains or losses), we could influence extraverts' intuitions independent of Harm and Help side effects. Our new chairman cases are identical to the original ones except that the chairman had a choice between two programs. In the loss frame, the choice was to choose between Program A which would certainly destroy 4,000 acres of rain forest versus Program B that had a 1/3 chance of destroying 6,000 acres of rain forest. In the gain frame the chairman chose between Program A that would certainly save 2,000 acres of rain forest versus Program B that had 1/3 chance of saving 6,000 acres of rain forest. In each condition the chairman chooses Program A and was presented as either helping or harming the environment. If intentionality ratings are influenced by negative affect, then when the chairman helps the environment by choosing a less preferable option (i.e. help by destroying), then socially sensitive individuals will see this behavior as more intentional. Similarly, when the chairman harms the environment by making the preferred choice (save 2000 of 6000 trees), then socially sensitive individuals may see his choice as less intentional.

Participants were 112 volunteers in lower level philosophy classes at Florida State University. Each participant was given Help framed positively and negatively or Harm framed positively or negatively, counterbalanced for order. A mixed model ANOVA with condition (Help, Harm) and order (loss first, loss second) as between subjects variables, and frame (positive, negative) as a repeated

measure, revealed the large expected side effect asymmetry $F(1, 110) = 42.35, p = .001, \eta_p^2 = .28$. Specifically, the Harm cases led to significantly stronger intentionality ratings ($M = 5.1$) as compared to Help conditions ($M = 2.3$). It is noteworthy that we also observed a relative reduction in the asymmetry's effect size. This result was anticipated because the different frames were hypothesized to differentially influence intentionality ratings for specific groups of participants (i.e. extraverts versus introverts).

Planned analyses assessed the relationship between intentionality ratings and frames in the harm condition. When the harm resulted from the selection of the non-preferred (losses-framed) choice, most participants rated this action as intentional, and thus extraversion was unrelated to intentionality ratings. However, when the harm resulted from a preferred gains-framed choice (i.e. although the environment is harmed, 2000 trees will be saved) linear regression analysis revealed that extraversion was associated with significantly lower intentionality ratings, $F(1, 57) = 3.78, p = .05, R^2 = .07$. As predicted, extraverts responded that the chairman's harmful behavior was less intentional when the chairman's choice was framed in terms of the widely preferred, socially acceptable gains choice.

Finally, planned analyses examined the relationship between intentionality ratings and frames in the help conditions. First, when the benefit resulted from the widely preferred choice (gains framed), most participants rated the chairman's behavior as highly unintentional, and thus extraversion was unrelated to intentionality ratings. Next, we tested the hypothesis that extraverts would rate the chairman's actions as more intentional when the help choice was presented in the non-preferred loss frame (i.e. 4000 of 6000 trees destroyed in contrast to 2000 trees saved). In order to test this relationship, we constructed a hierarchical linear regression examining extraversion while controlling for an observed order effect. This model used intentionality ratings as the dependent variable and included in the following order: (1) frame order (to control for the observed order effect) and (2) extraversion. The full model reliably accounted for a large amount of the asymmetry variance, $F(2, 57) = 8.94, p = .001, R^2 = .25$. Moreover, after controlling for the order effect, extraversion continued to account for considerable unique variance, $\beta = -.36, t = 3.00, p = .001, R^2_{\text{change}} = .13$. Consistent with an affective bias account, this suggests that when Help was framed in terms of losses, even help cases were seen as more intentional by *some* participants (i.e. extraverts), providing support for the bias interpretation.

Conclusion

In this paper we have presented a few of our newest findings from a research program that attempts to identify and understand individual differences, moral judgment, and folk intuitions. These data provide further evidence that folk diversity not only exists but also can be used to test, challenge, and refine theory. If there are groups of people who are identifiable and who express stable intuitions about

philosophically relevant topics, then we have a unique opportunity (or obligation) to account for those differences and explore the observed variation in judgment. Generally, the existence of stable individual differences across several domains provides converging evidence that many philosophical theories about ‘the folk’ are wrong or incomplete: There is no “the folk” who can be understood by examining mean responses. In contrast, the folk are systematically fragmented.

In closing, we want to emphasize that identifying individual differences in folk judgments is only a start. Theoretically, we argue that an understanding of both the more proximate (e.g. heuristics) and more ultimate (e.g. adaptive behavior) causes of folk judgment and diversity may be informed by, and require integration with, frameworks such as the Darwinian inspired adaptive behavior and cognition framework (e.g. fast and frugal heuristics; Gigerenzer, Todd, et al., 1999). That is, many judgments and decisions have been shown to reflect heuristic processes tuned by (and for) specific environments and experiences. Similarly, stable individual differences are also likely to reflect valuable adaptive processes for individuals who have specific goals, interests, values, and experiences. Moreover, understanding these processes and differences can also empower the design of more effective decision environments, social systems, and information technology. We believe progress in experimental philosophy will depend in significant part on the extent to which we identify exact cognitive processes (e.g. heuristics) along with the environments, purposes, and individuals for which these processes are designed and best suited.

References

- Adams, F. (1986). Intention and Intentional Action: The Simple View. *Mind and Language*, 1(4), 281-301.
- Akert, R., & Panter, A. (1988). Extraversion and the ability to decode nonverbal communication. *Personality and Individual Differences*, 9(6), 965-972.
- Cokely, E.T. (2007). Strategies, heuristics, and adaptive decision-making: New evidence from an individual differences and process tracing approach. *Proceedings of the 29th Annual Meeting of the Cognitive Science Society* (p.1726). Mahwah, NJ: Erlbaum.
- Cokely, E., & Feltz, A. (submitted). Individual differences, judgment biases, and theory of mind: Deconstructing the intentional action side effect asymmetry.
- Cushman, F., & Mele, A. (in press). Intentional action: Two-and-a-half folk concepts? In J. Knobe & S. Nichols (Eds.), *Experimental Philosophy*. Oxford: Oxford University Press.
- Dollinger, S., & LaMartina, A. (1998). A note on moral reasoning and the five-factor model. *Journal of Social Behavior and Personality*, 13(1), 349-358.
- Feltz, A. (in press). The Knobe effect: A brief overview. *Journal of Mind and Behavior*.
- Feltz, A., & Cokely, E. (2007). An Anomaly in Intentional Action Ascriptions: More Evidence of Folk Diversity. *Proceedings of the 29th Annual Cognitive Science Society* (pp. 1748). Mahwah, NJ: Erlbaum.
- Feltz, A., & Cokely, E. (submitted). Anomalies and diversity in folk judgments: Sex differences in intentional action intuitions.
- Frederick, S. (2005). Cognitive reflection and decision making. *Journal of Economic Perspective* 19(4), 25-41.
- Gigerenzer, G., Todd, P. M., & the ABC Research Group (1999). *Simple heuristics that make us smart*. Oxford: Oxford University Press.
- Gosling, S. D., Rentfrow, P. J., & Swann, W. B. (2003). A very brief measure of the Big-Five personality domains. *Journal of Research in Personality*, 37, 504-528.
- Nadelhoffer, T., & Feltz, A. (in press). The actor-observer bias and moral intuitions: Adding fuel to Sinnott-Armstrong's fire. *Neuroethics*.
- Haidt, J., Koller, S., & Dias, M. (1993). Affect, culture, and morality, or is it wrong to eat your dog? *Journal of Personality and Social Psychology*, 65, 613-628.
- Jackson, F. (1998). *From Metaphysics to Ethics: A Defense of Conceptual Analysis*. New York: Oxford University Press.
- Knobe, J. (2003). Intentional Action and Side-effects in Ordinary Language. *Analysis*, 63, 190-194.
- Malle, B. (2001). Folk Explanations of Intentional Action. In B. Malle, L. Moses & D. Baldwin (Eds.), *Intentions and Intentionality: Foundations of Social Cognition* (pp. 265-286). Cambridge: MIT Press.
- Mele, A. (1992). Recent work on intentional action. *American Philosophical Quarterly*, 29(3), 199-217.
- Nadelhoffer, T. (2004). On Praise, Side Effects, and Folk Ascriptions of Intentional Action. *Journal of Theoretical and Philosophical Psychology*, 24(2), 196-213.
- Nadelhoffer, T., & Feltz, A. (in press). The actor-observer bias and moral intuitions: Adding fuel to Sinnott-Armstrong's fire. *Neuroethics*.
- Nadelhoffer, T., & Nahmias, E. (2007). The Past and Future of Experimental Philosophy. *Philosophical Explorations*, 10(2), 123-149.
- Nichols, S. (2004). After objectivity: An empirical study of moral judgment. *Philosophical Psychology*, 17(1), 5-28.
- Nichols, S., & Ulatowski, J. (2007). Intuitions and Individual Differences: The Knobe Effect Revisited. *Mind & Language*, 22(4), 346-365.
- Smith, M. (1994). *The Moral Problem*. Malden: Blackwell.
- Sverdlik, S. (2004). Intentionality and Moral Judgments in Commonsense Thought about Action. *Journal of Theoretical and Philosophical Psychology*, 34(2), 224-236.
- Tangney, J. P., Baumeister, R. F., & Boone, A. L. (2004). High Self-Control Predicts Good Adjustment, Less Pathology, Better Grades, and Interpersonal Success. *Journal of Personality*, 72(2), 271-322.
- Turner, M.L., & Engle, R.W. (1989). Is working memory capacity task dependent? *Journal of Memory & Language*, 28, 127-154.