

## Fairness heuristic theory is an empirical framework: A reply to Árnadóttir

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In this article on fairness heuristic theory, we point out some important flaws in Árnadóttir's (2002) claim that fairness heuristic theory is "not empirical," by which Árnadóttir meant that theory's predictions are knowable *a priori*, and are not contingent upon circumstances. To this end, we demonstrate that empirically testing effects predicted by fairness heuristic theory was and is important because this showed that the theory's propositions are *not* necessarily knowable *a priori* and *are* contingent upon circumstances. This implies that, according to Árnadóttir's definition, fairness heuristic theory clearly is an empirical framework. It would have been helpful if Árnadóttir had studied the fairness literature more thoroughly (as this would have easily revealed fairness heuristic theory to be not knowable *a priori* and to be contingent upon circumstances) and also if she had pointed out which of our studies fail to follow her line of reasoning. Our reply was written not as an attempt to defend fairness heuristic theory as we applaud, indeed are honored by, attempts to scrutinize our work in progress. Our only aim here was to point at some important flaws in the Árnadóttir article, because we think these will hamper rather than advance the science of psychology of justice.

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Fairness plays a key role in human life, and a substantial body of research shows that people's beliefs, feelings, attitudes and behaviors are affected greatly by whether they feel they have been treated fairly or unfairly. In organizational settings, the feeling that one has been treated fairly typically leads to a variety of positive consequences, such as higher commitment to organizations and institutions, more extra-role citizenship behavior, greater likelihood of conflict prevention and resolution, better job performance, and higher levels of job satisfaction. People who experience unfair treatment, on the other hand, are more likely to leave their jobs, are less likely to cooperate, show lower levels of morale and higher levels of work stress and overt and covert disobedience, are more likely to initiate lawsuits, and may even start behaving in anti-social ways (Van den Bos & Lind, 2002).

Outside of organizational contexts the impact of fairness judgments is similarly profound. The belief that one has been treated fairly by judges, the police, or other social authorities enhances acceptance of legal decisions, obedience to laws, and evaluations of public policies, whereas the belief that one has been treated unfairly has been shown to prompt protest behavior and recidivism among spouse abuse defendants. Because fairness judgments influence so many important attitudes and behaviors, studying why fairness is important to people, how they form judgments of fairness, and what the effects of perceived fairness are on their reactions are crucial issues for understanding how people think, feel and behave in their social environments. To this end, we have developed what we used to call fairness heuristic theory. Because the psychology of fairness and justice encompasses

more than only heuristic processes, we have expanded this theory to be a model of uncertainty management (see Van den Bos & Lind, 2002), but here we will use the earlier label to refer to our attempt to explain the psychology of fairness judgments.

Because norms and values of fairness and justice play such a substantial role in guiding social behavior, it comes as no surprise that fairness judgments have received considerable attention from psychologists. Over the last 25 years the bulk of work on the social psychology of fairness has focused on establishing empirically the consequences of fair or unfair treatment. Social psychologists now have lots of evidence of the importance of fairness issues in various real-world settings, and they have identified a variety of ways that fairness affects people's reactions and behaviors. In other words, researchers know quite a lot about *what* the effects of social fairness are. However, these advances may have been achieved at the expense of deeper insights into what we think are the two most fundamental questions in the psychology of social fairness: *why* people care about fairness and *how* fairness judgments are formed.

Fairness heuristic theory argues that relatively little is known about the *why* and *how* of perceived fairness. Our attempt, therefore, was to try to explain these issues. We think that the theory we proposed was unusual for the social psychology of fairness because it analyzed fairness judgments from a frankly social-cognitive perspective. There has been a strong tendency in fairness studies conducted in the last 25 years to analyze the psychology of fairness as a component of the social psychology of groups, without much

concern for the cognitive dynamics involved. Although these prior models have been important for the development of the social psychology of fairness, they have largely neglected the social-cognitive basis of fairness. In our theory we tried to begin to fill this gap. This is not to say that all previous theories totally neglected the cognitive foundations of justice, but our model is new, we think, in its explicit emphasis on the social-cognitive aspects of the psychology of fairness judgments. Thus, we tried to make the case for a perspective on fairness that incorporates both the social and cognitive aspects of fairness, emphasizing the importance of both the social conditions under which fairness is more versus less important to people and the psychological processes involved in the forming of fairness judgments.

In the empirical work we conducted following these ideas we showed that fairness has a greater impact on people's reactions when social or cognitive conditions arise that prompt concerns about uncertainty. This suggests that fairness is more important to people in uncertain conditions than in situations in which they are certain about themselves (Van den Bos & Lind, 2002). Furthermore, we have argued that not only does uncertainty stimulate an interest in fairness, it also drives some specific cognitive processes in the construction of fairness judgments. More specifically, in the process of forming fairness judgments, people tend to look first for fairness information that is most relevant in the particular situation in which they find themselves. We further argued that an ostensibly obvious yet hitherto largely neglected fact is that people often lack information about the most relevant fairness issues. We argued that in these information-uncertain situations people start using other information – as heuristic substitutes – to assess what is fair. We have labeled this effect the “fairness substitutability effect”. People substitute one type of fairness information for another, we suggest, to avoid uncertainty about whether they are being treated fairly. We thus tried to propose a new, more precise psychological account of how fairness judgments are formed, with a strong emphasis that this is done differently when people are uncertain as opposed to certain about the most relevant fairness information (Van den Bos & Lind, 2002).

Besides the relevance for psychological science, we think fairness heuristic theory may be important for people working in organizations as the theory contradicts economic perspectives on organizational behavior and managerial practice, which tend to think of fairness and justice as some luxurious goods, to be awarded to employees in quiet times. The fairness heuristic analysis, however, suggests that fairness and justice are especially important in times of turmoil. To us, this suggests that our model is not only important for scientific reasons but for societal reasons as well. A thorough review of fairness heuristic theory is beyond the scope of this paper and for details we refer the reader to Van den Bos and Lind (2002) and the articles cited in that chapter.

In a recent contribution to the *Scandinavian Journal of Psychology*, Árnadóttir (2002) examined fairness heuristic

theory and argued that the theory is valid but not empirical. We truly appreciate the author's attempt to scrutinize our model. We think that the progress of science depends on rigorous scientific endeavors that critically examine ideas and data that are out there and have been published. What is more, we feel honored that Árnadóttir took the time and energy to focus particularly on our work, as an example of what she thinks is a problem for many psychological propositions (Árnadóttir, 2002, p. 355). Furthermore, we are glad that Árnadóttir judges fairness heuristic theory to be valid. Personally, we think that it is very difficult, if not impossible to conclude that a theory is valid and that it perhaps would be better to conclude that as of now fairness heuristic theory seems to fare pretty well, but we are pleased that Árnadóttir has a more positive perspective on this aspect of the theory. However, here we will not go into a detailed discussion of *all* the interesting, thought-provoking statements as to the philosophy of science in the Árnadóttir article, but rather would like to concentrate on some facts that have been reported in the psychological literature and that point out some important flaws in the contribution by Árnadóttir. In doing so, we focus on Árnadóttir's claim that fairness heuristic theory is not empirical, by which it is meant that the theory's predictions are knowable *a priori* and are non-contingent upon circumstances.

We think there are good reasons to state that Árnadóttir's arguments that fairness heuristic theory's predictions are knowable *a priori* is based on a very simplified armchair version of the psychology of fairness judgments that not truly understands (or is knowing of) the complexities of the psychology of fairness judgments. For example, Árnadóttir criticizes our work on what has become known as the fair process effect (the effect that fair procedures have positive effects on, for example, people's outcome judgments). She notes that “we can take it for granted that, all other things equal, people would rather be treated fairly than unfairly” (p. 356). This quote neglects the occurrence of the fair process effect in the presence of other important social motives and other types of information, such as outcome favorability and people's self-interest. Indeed, one of the principal contributions of social justice research, including our own work, has been the discovery that not only does justice matter, it matters *more than* other possible antecedents of attitudes and behavior toward authorities. In addition, it was, at the outset of justice research, not at all clear which antecedents of fairness judgments were most important, and Árnadóttir's assertions seem to be unaware of the debates in the justice literature what type of antecedents are important for what people think is fair. As mentioned in many fairness heuristic papers (e.g., Van den Bos & Lind, 2002), it was precisely this debate that our research focused on and tried to solve, at least for some parts, and it would have been good, we think, if Árnadóttir had referred more thoroughly to this literature when making her argument. After all, when writing scientific articles one should be very careful that one

truly reviews and understands the literature one is studying or criticizing.

Moreover, research findings have been published that show that sometimes people *do* want to be treated unfairly. For example, on the basis of fairness heuristic theory, Van den Bos, Bruins, Wilke, and Dronkert (1999) argued that when people receive an unfavorable outcome, they may start looking for causes that explain why they received this outcome. Furthermore, the authors proposed that unfair procedures provide an opportunity to attribute one's unfavorable outcome to external causes, whereas fair procedures do not. As a consequence, people may react more negatively following fair as opposed to unfair procedures (a reversal of the fair process effect). The findings of three experiments corroborate this line of reasoning and show that if unfavorable outcomes strongly instigate attribution-seeking processes, a reversal of the fair process effect indeed can be found. In this way, these findings show that sometimes people want to be treated unfairly. So the fair process effect is a phenomenon that can and should be empirically tested and that is contingent upon situational circumstances (e.g., evaluative pressure; see Van den Bos *et al.*, 1999). This illustrates that careful thought and thorough empirical study may reveal counterintuitive findings that may further insights into the psychology of the effect. It would have been nice if Árnadóttir had cited this 1999 paper and other papers that do not adhere to her line of reasoning.

Similarly, her critique on equity theory is lacking true knowledge of the theory she is criticizing. Árnadóttir refers to the central idea of equity theory as follows: "If people believe their outcome should equal that of someone else, they judge their outcome to be fairer when it does than when it does not" (p. 357). This simplified statement of equity theory neglects the important role that inputs play in the theory. Furthermore, it neglects people's reactions to advantageous inequity, which started the whole work on equity: When studying employees' reactions at General Electric, Adams, the founder of equity theory, discovered that employees who were better paid than their co-workers, who had provided comparable inputs, were less satisfied with their payment than those who were equally paid. This overpayment effect has been frequently replicated and suggests interesting insights into what may make people tick: Apparently, people are not driven only or strongly by outcome favorability or instrumental issues, as quite a number of economic and other theories would predict, but are influenced so strongly by fairness concerns that they are reacting negatively toward unfair but better paying outcomes. This contradicts many theories that take the importance of particular motives, such as self-interest, for granted. Furthermore, whether or not deservingness is driving equity effects, as Árnadóttir (p. 357) suggests, is a matter of debate, and it has been shown that the overpayment effect is contingent on situational circumstances (such as the presence of high versus low cognitive load), making the phenomenon clearly contingent upon

circumstances and making it necessary to empirically test the theory and its propositions.

Árnadóttir (2002) also repeatedly objects to the importance of our findings that when people do not have available the most relevant information (such as social-comparison-based information or information about authority's trustworthiness) stronger effects of less relevant but available information are likely to be found. Besides the fact that our data clearly show that people (other than Dr Árnadóttir) do make a distinction between trust and fairness information, a knowledgeable reader of the literature would also have noticed the 2001 article in which it was clearly discussed that these predictions are not always found (Van den Bos & Lind, 2001). Empirically testing hypotheses of psychological hypotheses is important, we think, because they quite often reveal unexpected or contradictory results; results that subsequently lead to refinement of the theory and more precise insights into the psychology of fairness effects. The Van den Bos and Lind (2001) findings are no exception to this as the implications of these and other results may well be that information-substitutability effects are contingent on whether the effects are tested in group-relevant versus group-irrelevant contexts: It appears that in contexts in which groups play an important role (as was the case in the Van den Bos & Lind, 2001, setting), the impact of the cognitive processes fairness heuristic theory predicts do not work or do not work as well as in the contexts of the earlier studies.

Furthermore, the studies criticized by Árnadóttir that did provide supportive evidence for the information-uncertainty predictions of fairness heuristic theory spurred conceptual thought and research that shows that even very subtle reminders of uncertainty (just asking people to complete two questions that make their uncertainties salient) play a more important role in the psychology of fairness judgments than important other accounts (such as mortality salience) and that this non-commonsense finding has important implications for other social psychological concepts as well (such as group affiliation, self-esteem, and cultural worldview) (Van den Bos & Lind, 2002). In contrast with what Árnadóttir argues, it is highly unlikely that without the empirical endeavors mentioned earlier this progress in social psychology (as outlined in Van den Bos and Lind, 2002, publication) would have been made.

Precious journal space prevents us from discussing other points and details in the Árnadóttir (2002) article, but we would like to note here that we were surprised to see ourselves accused of physics envy, the conviction that empirical research alone would make a respectable science of a discipline, and the failing to realize that scientific work is a much broader category than empirical work (pp. 361–362). For the reasons mentioned earlier, we think that empirically testing effects predicted by fairness heuristic theory was and is important because this showed that the theory's propositions are not necessarily knowable *a priori* (e.g., Van den Bos *et al.*, 1999) and are contingent upon circumstances (e.g., Van den Bos & Lind, 2001). This implies that, according to

Árnadóttir's definition, fairness heuristic theory clearly is an empirical framework. Árnadóttir attaches less importance to our empirical studies. This is fine, but it would have been nice if she had also discussed our studies that fail to follow her line of reasoning (e.g., Van den Bos *et al.*, 1999; Van den Bos & Lind, 2001), had studied the fairness literature more thoroughly, and would have known about the possibility of recency as opposed to primacy effects (cf. Van den Bos, Vermunt & Wilke, 1997). The present contribution was not written in an attempt to defend fairness heuristic theory because we applaud, indeed are honored by, attempts to scrutinize our work in progress. Our only aim here was to point at some important flaws in the Árnadóttir article, because we think these will hamper and not further the science of the psychology of justice.

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