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COMMENTARIES

Intuitive Versus Rational Judgment and the Role of Stereotyping in the Human Condition: Kirk or Spock?

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One of us (Sherman) has also enjoyed delightful dinners with Danny Kahneman and Amos Tversky. Invariably, conversations at these dinners provoke thought for days and weeks to come. Whether or not one fully accepts or agrees with the conclusions that Kahneman and Tversky draw from their ingenious studies, one cannot help learning new things about judgment and decision making and being led to think about human judgment in new ways. Similarly, the current article by Robin Fox has provoked our thinking about cognitive and affective processes, evolution, stereotyping, and the human condition.

In commenting on the controversial claims and conclusions of this article, it is first important to outline exactly what Fox is and is not saying. Fox is not arguing that the current content of stereotypic thinking (whether about farmers, races, or sex) is innate, unchangeable, evolutionarily necessary, or even good and adaptive—although he appears to say just that at various points in the article. He does argue that our basic cognitive system, the ways in which we think about the world and categorize objects, works in a certain fixed and unchangeable way. There are important constraints on the way in which the mind works. One of the most basic constraints is that we must categorize items and events. We cannot and do not think about or treat all objects as more or less the same and as falling within the same general category.

Rather, we identify different classes of objects according to features and attributes that are seen as inherent in these objects, and we treat different classes differently based on these attributes. Such natural categorization and classification is as true for social objects as it is for nonsocial objects.

Although, as presented in Fox’s article, the ideas about stereotyping at times seem to be quite radical and off-center, the basic premise about categorization as a natural process is one with a long history in psychology; it is well accepted and quite noncontroversial. For example, Bruner (1957) argued that perception does and must involve an act of categorization. On the basis of criterial attributes, any stimulus input is selectively placed into one category of identity rather than into another. Most important, Bruner claimed that these acts of categorization are essential to low-level perceptual processes as well as to higher level conceptual activities. All perceptual experience was seen by Bruner as the end product of a categorization process. More recently, Rosch (1978) introduced the notion of natural categories, highly accessible and usable groupings that people think in terms of. Such categories have rich inductive potential, such that knowledge of membership in the category allows the prediction of important properties of members. Still more relevant, Rothbart and Taylor (in press) argued that social categories are conceived of and represented like natural kinds, and this is especially true when there are physical differences between people as in the case of sex, race, and age. The point is that social and cognitive psychologists alike share Fox’s view that categorization is a natural process and that having different category labels and prototypes for different groups of people is a basic aspect of the human cognitive system. And, of course, this natural categorization process has many benefits in terms of ease of information processing, simplifying a complex world, allowing rather quick-and-easy decision making and prediction, and generally leading to cognitive economy.

Thus, we agree with Fox’s basic assumption that social categories of one kind or another are inevitable. We also agree with Fox that, to some extent, the particular social categories that we use to divide people are changeable, as are the specific attributes associated with any category. However, even if we change the categories that we use (e.g., short-armed vs. long-armed people as opposed to men vs. women) or change the content associated with existing categories (women as smart and loyal rather than as dependent and nurturant), we will still have some category system. Moreover, there would be some social categories that any person would judge as positive and others as negative, depending on the person’s own category membership and the closeness of other categories to the membership group. In Fox’s terms, we would only be replacing what are now (to some people) unacceptable categories with more acceptable categories.

Despite our agreement with Fox concerning the constraints on our cognitive system, the inevitable fact of social categorization, and the functional benefits of such categorization, there are other important aspects of the ideas and conclusions of this article with which we are less in agreement. Our discussion focuses on three issues:

1. If it exists, it must be good.
2. Quick-and-dirty thinking is the way to go.
3. Current stereotypes are generally quiet, inoffensive, and even kindly.
If It Exists, It Must Be Good

Throughout his article, Fox makes the questionable assumption that however humans think and act currently must be advantageous because we are here and we have survived. There is a Panglossian assumption that whatever we are is for the best in this best of all evolutionary worlds. We question this assumption both because it is teleological in nature and because it is quite unsupported by any data. Thus, even if we accept the idea that certain types of thinking (including stereotyping) are prevalent, natural, and even inevitable, we question whether this is necessarily for the best. Species do become extinct because their attributes don’t permit adaptation. Human thought systems may be what they are and may be imperfect, but this is no proof that such systems are to be preferred to alternative thought systems that are more rational or less error-prone.

In playing the “if it exists, it must be good” game, Fox seems to rely a great deal on the Kirk-versus-Spock survival potential. Assuming that Kirk represents typical human thought and action (an assumption that we shudder to accept), does he have survival value over Spock with his unerring logic? Fox says yes. We say, not necessarily. Fox argues that while Spock was calculating the odds of a saber-toothed tiger springing at him, he would be ripped to shreds. But of course, a perfectly rational mind would figure the time in which a decision must be made and would act accordingly under these constraints. We return to this issue of decision making with and without time constraints shortly. Fox continues with a more general argument that computer programs could never achieve the speed and accuracy of human thought and action and that it is better to have a human than a computer decide on a major military decision. In the first place, it is obvious that for many complex decisions computers can decide much faster than human judgment can. In addition, the facts are that within a short time there will be a computer chess program that will easily defeat any human grand master. Also, years of research support the decision-making advantages of actuarial over clinical judgment (Dawes, Faust, & Meehl, 1989). Finally, Fox concludes that the completely rational human or computer would never survive. Spock could never function effectively in a human community. Perhaps not, but this isn’t the point. He could function very well in a Vulcan community. And which would be more likely to survive the longest, the Vulcan or the human community? Fox may have his guess, but we have ours.

The point is that the bodies and minds that we have might be reasonably well-suited to the present, but they needn’t be the best suited, and they certainly needn’t be bodies and minds that are the most likely to have long-term survival. We are what we are, but this in no way implies that what we are is the best in an evolutionary (or moral or any other) sense. We may or may not survive very long as a species. Moreover, we may have in our power the ability to change how we think or at least how we make decisions. And such change may be incredibly beneficial for human survival. To argue against any improvement toward rational decision-making on the basis that we are here and so the way that we think must be fine seems to us a dangerous view. In this regard, Fox’s arguments are similar to many of the arguments tossed out by misusers of the sociobiological approach: If it exists, it must have an evolutionary purpose. A “reasonable” purpose for almost any human attribute or behavior, including poor thinking and problem solving, can be invented; but these arguments are typically given without one shred of genetic or evolutionary proof.

Quick-and-Dirty Thinking Is the Way to Go

Humans do engage in quick, intuitive decision-making. We use simple heuristic principles, and we automatically and quickly process information in certain ways. The identification of some of these heuristic principles is, in fact, one of the most important contributions made by Tversky and Kahneman (1974). How should we feel about the use of these simple and intuitive principles of thinking? It would be wrong to characterize Tversky and Kahneman as bemoaning the use of these principles. They, as well as most others in the field of human judgment, recognize the great value of using these principles. Heuristics often and typically lead to a correct (or an in-the-ballpark) decision. More important, they save a tremendous amount of time and energy in decision making. So it is not the use of quick-and-dirty heuristic and intuitive judgments that is the problem. It is the overuse and misuse of such principles.

Although simple, heuristic decision-making can lead to proper judgments much of the time, it unfortunately also leads to characteristic errors and biases in judgment. It is the use of these principles when they are inappropriate and the failure to recognize their inappropriateness that is the problem. Much of the work of Kahneman and Tversky and others has been devoted to identifying and understanding these characteristic errors through the misuse of heuristic principles (see Sherman & Corty, 1984, for a review). The farmer example, the basis of many of Fox’s musings, is but one example of these characteristic errors—base-rate neglect.

The key issue, it seems to us, is when to use heuristic and intuitive processes of judgment and when not to. The answer is not simply “when they are likely to lead to an approximately correct answer, use them; when they are not, use more rational and complex decision-making principles.” Even when an intuitive or heuristic process might lead to errors of judgment, it still might be the preferable strategy. This is especially true under time pressure. Fox fails to recognize that time pressures, costs for lengthy decisions, and costs associated with different kinds of errors all enter into rational decision-making. If time is of the essence, a quick process that has a high chance of error might still be preferable to a lengthy process that would lead to fewer errors. Also, if one type of error (e.g., concluding that a farmer is a nonfarmer) is more costly than the other type of error (e.g., concluding that a nonfarmer is a farmer), this should also be taken into account in the decision-making process.

Thus, heuristic and intuitive decision-making certainly has its proper place. With this premise, neither we nor Kahneman and Tversky would disagree. The real problem is that when there is no time pressure and when the decision is an extremely important one (e.g., a military or medical decision; people still use these same intuitive and heuristic principles and make errors of judgment that could otherwise be avoided by using different decision-making strategies. Consider a situation where our mathematically and logically sophisticated colleagues are presented with a tricky, counterintuitive problem. If they are given very little time to answer, there is no problem with their using a heuristic or intuitive
strategy—and very likely coming up with the wrong answer. It would be a problem, however, if we sent them home to arrive at a judgment with unlimited time, and they failed to use the appropriate, but more complex, reasoning strategy. The literature clearly indicates that when subjects are highly motivated to make correct judgments under no time pressure and when they are offered lots of money for being correct, they still use the heuristic and intuitive principles that are likely to lead to errors of judgment (Tversky & Kahneman, 1974).

**Quick Is Quick**

It is not necessary, despite Fox’s suggestion, that quick is right. Of course, quick reasoning can be better than slow reasoning, especially under conditions of costly time pressure. As judgment researchers such as Thaler (1980) have noted, sensible rules-of-thumb and intuitive guesses may lead to deviations from an expert model, but with time constraints or with imperfect knowledge, such strategies may be thought of as perfectly rational. And this is what makes Fox’s arguments appear to be so compelling. Virtually all his supporting examples involve cases where time was of the essence (attack by a saber-toothed tiger, being confronted with an enemy in war paint, etc.). Of course, in situations such as this, acting intuitively and quickly is necessary. Any rational decision-making approach would agree. It is when time is not a factor that intuitive decision-making will come in a poor second to more complex and logical processes. Fox presents no such examples of unlimited time. Furthermore, just because intuitive and quick judgments are necessary due to time pressure in no way means that such judgments are likely to be correct. It is in fact quite unlikely that these necessarily quick judgments would be more error-free than more careful and reasoned decision-making. Even the carefully chosen examples given by Fox do not unequivocally demonstrate the benefits and survival value of quick decision-making. The enemy warrior with a painted face suddenly appears. Kill quickly and think later is advocated by Fox as promoting survival. However, if the enemy warrior were on a peace mission, this killing could lead to escalated war and the extinction of one or both tribes. We can obviously append any ending to these stories to demonstrate the advantages or the disadvantages of intuitive, heuristic problem-solving. In general, however, the value of such a problem-solving strategy is only in its quickness, not in its accuracy.

One other point about rational and inductive versus intuitive judgment relates to Fox’s central example of the farmer who does not exactly sound like a farmer. Fox identifies rational, inductive thinking with ignoring the description and going with a guess of “farmer,” because of its high base-rate. He identifies intuitive or stereotypical thinking with ignoring the base rate of farmers and going with a guess of “nonfarmer.” We agree that pure stereotypic thinking would involve ignoring the base rate. We disagree, as would Kahneman and Tversky, that rational problem-solving would ignore the description of the target person. Rational decision-making would involve using both the base rate of farmers and the individuating information about the target person. The effect of the individuating information would depend on its diagnostic value, as Bayes’s theorem would dictate. If the description was of a man who knew nothing about tractors and crops and worked all day in a library, this information would be completely diagnostic and would lead to a rather certain guess of nonfarmer, despite its low base-rate. No one proposing rational decision processes would disagree. If the description of the target person were totally nondiagnostic (he lives in a brown house and has one child), the guess should be “farmer” with a likelihood of .9 (the base rate). If the description were somewhat diagnostic of a nonfarmer, as is the description given by Fox, then the posterior likelihood of farmer drops substantially. Rational decision-making does not propose that stereotypes or individuating information not be used in judgment (provided that they are somewhat accurate in describing a group) and that only base rates be used. Both kinds of evidence should be used in appropriate ways. The problem is that judges typically ignore or underuse base rates and overuse the degree of similarity of a target description to a category prototype. Even when the target person is described in totally nondiagnostic terms, subjects do not use the base-rate information anywhere near sufficiently. And this happens without any time pressure on subjects. No matter how much Fox argues and squirms, this is a serious error of judgment, and one that will very likely lead to misidentification. It is difficult to see how such an error-prone process of an imperfect mind could be beneficial or could have survival value.

We argue that quick-and-dirty thinking has its place and has its advantages for the decision maker. The problem is knowing when and when not to use heuristic and intuitive principles, and how to use more rational, inductive principles when the time is right for using them. Models such as Fazio’s (1990) model of the attitude–behavior link speak to the conditions under which automatic (quick and dirty) attitude activation is used and is appropriate as opposed to times when more rational and controlled processes of attitude–behavior determination are to be preferred. When decisions are very important to the individual or to society, intuitive decision-making can lead to serious errors. Imagine that a plague was rampaging New Brunswick (a high base-rate of disease) and there was a limited supply of vaccine. Fox has some illness symptoms but they do not match the typical plague symptoms. Would he want the medical decision to be made by one of his intuitive decision makers or by a decision maker who took base rates into account?

Having argued that quick-and-dirty decision making is simply fast but is usually error prone, we feel that it is only fair to point out that recent work in psychology has shown certain accuracy advantages to the quick and dirty over the rational, inductive. For example, Zajonc (1980) suggested that affective responses were quick and intuitive and occurred without extensive perceptual or cognitive encoding. Zajonc further argued that these “feeling without thinking” responses were more basic and primary in nature and in many cases led to judgments that were better than judgments made on the basis of cognitively weighing all the evidence. Recent work by Wilson and his colleagues (Wilson, Lisle, & Schooler, 1991; Wilson & Schooler, 1991) also supports such a view. Wilson’s subjects were given tasks such as choosing between brands of jam, choosing between courses to take, or choosing between art posters. Some subjects were simply asked to choose. Others were asked to analyze reasons before choosing or to evaluate all the attributes of the items. Subjects who engaged in the rational and time-consuming process of analyzing reasons and thinking about the
objects made poorer decisions (as determined by experts), and they were ultimately less satisfied with their choices. These results could certainly be used to support Fox’s notion that going with your intuitive feelings and gut reactions is best in the long run. This point leads us to the third and perhaps most important aspect of Fox’s article that bears scrutiny, the existence of and the effects of social stereotypes.

**Current Stereotypes Are Generally Quiet, Inoffensive, and Even Kindly**

We have examined up to this point general issues concerning quick and intuitive versus more careful and systematic processing. Fox identifies stereotypical thinking as a clear example of the benefits of quick-and-dirty thinking—it is fast and provides a basis for immediate action in uncertain circumstances. However, given that errors are indeed more likely when rational judgment is not employed, these benefits of stereotypical thinking are often outweighed by the potential for erroneous judgment. In addition, we believe that Fox overlooks the fact that stereotypical thinking and prejudice often operate in circumstances when immediate survival, or even the necessity for quick decisions, is not an issue. Stereotypical thinking has implications much beyond immediate survival and we argue that, as is the case with general information processing, the type of quick intuitive processing associated with stereotypes is not always good and does not always lead to the best outcome. We examine these issues concerning stereotyping and prejudice in some detail because we believe that in addition to the more general issues already raised, there are some issues specific to the stereotype domain that also need to be discussed.

We want to state at the outset that we believe there is a danger in too quickly accepting the premise that stereotypes are generally quiet, inoffensive, and even kindly. We have already argued that we are not convinced that quick-and-dirty processing is always the best strategy. Stereotypic thinking may be necessary and even advantageous in certain specific circumstances, but more often than not, replacing rational thought with stereotypic thinking will lead to errors in judgment and serve to perpetuate stereotypes that do not reflect inherent group differences. Although Fox suggests that stereotypes can be modified and constantly revised in a more favorable direction, many of his examples suggest an implied complacency with the use of current stereotypes. We argue that this complacency can have deleterious effects that are loud, offensive, and anything but kind. Before getting into the specifics of our argument, we think that it is fair to acknowledge that it is possible, given Fox’s analysis, that we cannot help but make such moralistic claims. We understand the operation of this bias and accept it based on our own systematic (rather than quick and dirty) analysis of the cognitive and affective effects of social stereotypes for the human condition.

The central argument Fox offers is that stereotypes are not necessarily bad. Stereotypes make information processing easier and so long as hatred is not associated with the stereotype, Fox argues, then the stereotype is benign. We believe that this argument overlooks two important issues. First, Fox’s analysis seems to ignore the fact that stereotypes originate in a social system and do not necessarily reflect natural or real differences between groups. As such, stereotypes have functions in the social system far beyond making information processing easier for the individual. From this perspective, the content of social stereotypes becomes extremely important and social stereotypes are more than just simple categories. They are value laden and reflect the social and political biases of the social system from which they originate. Second, stereotypes often bias judgments and evaluations of members of stereotyped groups at the individual level in ways that serve to perpetuate stereotypes and prejudice. It seems to us that when we talk about social stereotypes we must consider the interplay between individuals and their information processing mechanisms and the social system in which the effects of stereotypes are played out.

**Prejudices and Stereotypes Deserve Some Respect**

Fox argues that prejudices and stereotypes, because they exist and they got us here, deserve some respect. That is, stereotypical thinking has played a role in the evolution of our species, so stereotypes cannot be viewed as bad, right? Again, we believe that this is a rather dangerous assumption that can lead to complacency in the use of stereotypical thinking and prejudice. We argue that prejudices and stereotypical thinking got us here in a way that has created and maintained differences between groups that are by no means natural but rather are a function of social construction. Fox, by ignoring the issue of the origin of the content of social stereotypes, seems to imply that the stereotypes originated in an unbiased fashion and are natural and that therefore their use is benign.

In contrast to stereotypes necessarily reflecting true group characteristics, we believe that the content of particular stereotypes more often develops in response to social, political, and economic concerns. History suggests that the characteristics ascribed to various social groups often reflect a justification of social, political, and economic advantage of the dominant majority group and discriminatory treatment of oppressed groups. Consider, for example, how stereotypes of Blacks in this country were revised throughout history. Early stereotypes of Blacks were developed to rationalize slavery. Slavery was viewed as a legitimate practice because, after all, it fit Blacks’ character and ability. So, the image of the docile, happy-go-lucky, not-too-bright Sambo was generated. This stereotype served three functions. First, it created the false image that Blacks enjoyed the lot assigned to them by the White majority. Second, it alleviated any guilt that would become associated with slavery. Finally, it justified slavery because Blacks were not smart enough or motivated enough to function on their own.

Thus the original stereotype served the primary function of legitimizing a social practice that ensured inequality between Whites and Blacks. The freeing of slaves during Reconstruction, however, threatened the view of White supremacy and the appropriateness of slavery in general. The threat to the status quo led to a revision of the Black stereotype. Blacks came to be viewed as savages, who, without the constraints imposed by slavery, would revert to their primitive and animalistic nature. This image, though far from the happy-go-lucky Sambo, served the same purpose—to provide a rationalization for slavery (see Rothbart & Taylor, in press, for a similar analysis of the changing conceptions of Jews throughout history). These types of changes in stereotypes...
cannot really be viewed as natural or as progress in an evolutionary sense, but rather as strategic modifications that served to preserve White supremacy.

We believe that the viewpoint that stereotypes are unbiased and natural is problematic because people seem to operate as if knowledge of social category membership reveals important and diagnostic information about others when in fact it typically does not. Rothbart and Taylor (in press) argued that this happens because people have a tendency to view social categories as natural kinds. This analysis suggests that social categories, as natural kinds, possess the characteristics of an unalterable essence and have rich inductive potential. As a result people treat knowledge of a person’s group membership as though it enables clear and accurate inferences about that person’s personality, intelligence, and motives. In reality, a person’s social category membership reveals very little about these characteristics and, as such, its inductive potential is rather limited. Moreover, there is no unalterable essence of Blacks or women. Rothbart and Taylor argued that social categories are much more like human artifacts than natural kinds. This analysis is very much consistent with our suggestion that social stereotypes are social constructions often developed to rationalize status, power, and economic differences between groups. In sum, our position is not that categorical thinking is bad or even assigning people to various social categories is wrong. What seems less appropriate is treating membership in a social category as though it necessarily has great inductive potential.

Fox’s analysis seems to assume that what is good for one group is good for all groups. We expect that not all groups would endorse this claim. Indeed, we believe that the only people who can accept this premise and its implied complacency about the uses of prejudice and stereotypes are those who are not disadvantaged socially, politically, or economically by their use. When values (what is considered good and appropriate) and power (social, political, and economic) are differentially attached to members of groups as a function of group membership, then the application of stereotypes can lead to the perpetuation of such value and power differences. This we do not accept as inoffensive, humorous, or kindly.

**Negative Consequences of Unmonitored Stereotype-Based Processing**

Thinking in terms of categories may be logical—indeed, as Fox argues, this type of thinking may be inevitable. However, when it comes to stereotypes some of the benefits gained by efficient processing may be outweighed by the negative consequences of unmonitored stereotypical thinking. For example, stereotype-based processing can perpetuate biases reflecting the values of a social system that has evolved to maintain differences between groups.

What makes these biases so dramatic is their pervasive and tenacious nature. As Fox noted, thinking in terms of stereotypes is virtually inescapable. Devine (1989) recently demonstrated that stereotypes are automatically activated in the presence of stereotyped group members and that, when not carefully monitored, they affect judgments and evaluations of stereotyped group members. The stereotype literature is replete with examples of how stereotypes, once activated, can have harmful biasing effects for judgments made about members of the stereotyped group—judgments that often serve to maintain the disadvantaged position of the stereotyped group. That is, stereotypes have been shown to influence the interpretation of ambiguous behaviors (Darley & Gross, 1983; Devine, 1989; Duncan, 1976; Sager & Schofield, 1980), construals of behavior (Kunda & Sherman-Williams, 1991), expectations about the target person’s behavior (Snyder, Tanke, & Berscheid, 1977; Wort, Zanna, & Cooper, 1974), and reconstructive memory for events (Snyder & Uranowitz, 1978). Slusher and Anderson (1987) demonstrated that people tend to imagine members of a group in accordance with their stereotypes for that group. Each of these biases, whether intentional or not, have the effect of leading to perceived confirmation and thus perpetuation of the stereotype—whether the evidence warrants this conclusion or not.

If, as we have argued (see also Rothbart & Taylor, in press), these extant biases are not natural and do not reflect real group characteristics, then past prejudices and discrimination will be difficult to undo if we respond only in quick-and-dirty ways—that is, with the unthinking use of stereotypes. Of course, this last statement involves a value judgment that past prejudices and discriminations should be undone. We must be clear that we support this value. In sum, in our opinion, effects that serve to perpetuate prejudice and discrimination, are not simply benign.

We think it is interesting to note that we are not alone in making such value judgments. That is, many people have consciously renounced prejudice and stereotyped-based thinking and have developed nonprejudiced personal standards for appropriate responding (see Devine, Monteith, Zuwerink, & Elliot, 1991). Despite possessing such standards at the conscious level, these people like most other people find it very difficult to escape or control the rather automatic stereotype-based thinking (Devine, 1989; Devine et al., 1991). That is, the quick and intuitive stereotype-based processing discussed by Fox persists and continues to exert an influence on responses. For those who renounce prejudice, then, responses based on automatic stereotype activation are in fundamental conflict with their consciously adopted nonprejudiced, egalitarian beliefs and standards. Note that even though these stereotypic responses are quick and efficient, they are not likely to be viewed by the nonprejudiced person (i.e., someone who tries to respond without prejudice) as desirable or benign. Devine et al. (1991) showed, for example, that when nonprejudiced people are aware of the discrepancy between their stereotype-based responses and their personal standards, they experience feelings of guilt and self-criticism.

There is an interesting logical twist here. The automatic use of stereotypes for those who reject stereotypes as a basis for responding is actually dysfunctional rather than functional for such individuals. Such responding, although quick and efficient, is inconsistent with the nonprejudiced person’s values and personal standards and creates uncomfortable psychological conflict for the individual. Thus, stereotype-based responses are not responses that nonprejudiced people believe should be given respect. In contrast, stereotype-based responses are to be inhibited and replaced with nonprejudiced responses. Generating nonprejudiced responses involves controlled, rational processing which requires thought, effort, and intention. Nonprejudiced individuals prefer to put in the effort and care associated with such demanding controlled processing to making quick and intuitive
responses based on stereotypes. From their perspective, what is easy is not better.

We believe that to address some of the negative consequences of unmonitored stereotype-based thinking, it is important to educate ourselves about the ways in which stereotypes can affect our judgments of and behavior toward others. That is, in efforts to combat the effects of stereotype-based processing, we need to know what we are working against. In contrast to Fox's position—that we should accept that, by default, we will stereotype others—our position is that we can exert control over stereotype activation and that, in fact, it is necessary for some people to learn to do so if they are going to respond in value-consistent ways. Indeed, we believe this is particularly important, given our agreement with Fox's point that stereotypes and people's assumptions about the inductive potential of social category membership are not going to disappear. From this perspective, simply trading one stereotype (e.g., Blacks as lazy and aggressive) for another (e.g., Blacks as intelligent and creative) can be equally harmful. Perhaps a better strategy is to understand when and how stereotypes affect judgments and evaluations and to learn to control those effects. Again, we recognize that this viewpoint reflects a value judgment, but when considered in the context of the social system from which social stereotypes emerged, we believe value judgments are necessary.

When Dislike of Outgroups Can and Cannot Be Challenged

Fox argues that we should not expect people to like every other person. We agree with Fox that such expectations would be naïve. However, Fox's justification for disliking outgroup members puzzled us. Fox suggests that some reasons for dislike are inappropriate and should be challenged. He argues, for example, that dislike of Blacks based on the opinion of genetic inferiority (a specific feature attributed to the group) can be shown to be false. Indeed, Fox has tried in his own writing to correct such misconceptions. However, dislike based simply on category membership (i.e., being Black), Fox suggests, allows for no compelling counterargument. It seems to us that Fox should clarify his definition of stereotype. Simply identifying one's group membership is not what we mean by stereotyping. In contrast to stereotypes being minimal, we have already seen that stereotypes are rich in content and people treat them as if they have great inductive potential.

Prejudice and the Unfinished Mind: Closing Comments

Fox's title was extremely thought provoking. We agree with Fox (and Kahneman and Tversky) that the mind is unfinished—it is not perfect and it does not make judgments and decisions without error. Given its unfinished nature and the fact that there is room for progress in the mind's development, we believe that we should not settle for complacency about its current level of functioning in general or, more specifically, its use of social stereotypes. In a sense, we agree with Fox that as social creatures and decision makers we need to understand the mind's shortcomings. With such an understanding, we can decide which are the important shortcomings to work on and then develop strategies to address them.

The decision regarding which of many shortcomings to address will probably have to be a very individual one. At any rate, we believe that progress can be made and we can work toward finishing the yet unfinished and imperfect mind.

Notes

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References


A New Look, Better Look, or Different Look?

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"Prejudice and the Unfinished Mind" is an entertaining, stimulating, and enlightening treatment of the nature of stereotypes and prejudice. To make his points, Fox refers to philosophical, psychological, and anthropological works, to personal anecdotes, and to informal observations of human and nonhuman (e.g., Vulcan) behavior. Because of the nature of this evidence and inherent problems with verifying evolutionary-based frameworks, empiricists (such as those likely to read Psychological Inquiry) may tend quickly to dismiss Fox's claims and case. It should be noted, however, that this very reaction of stereotyped thinking and prejudgment over rational consideration and logic may be taken as supporting Fox's position. Fox raises several interesting and provocative issues. In addition, drawing on sources outside contemporary psychology, he adeptly identifies various phenomena (e.g., fundamental attribution error, defensive attribution, mere exposure effects, contact and the reduction of bias) that psychologists have labored long hours in the laboratory to discover and validate. Thus, this "new look at an old failing" deserves a close look.

Fox's essay centers on Kahneman's (or was it Tversky's) conclusion that "in evolutionary terms, we are an imperfect creature; we have an unfinished mind." In particular, Fox questions whether people's general preference for intuitive judgments to logical arguments indicates that "we are hopelessly deficient thinking machines" or reflects the evolution, through natural selection, of a mode of thinking that has essential survival value. In contrast to the view that human's reliance on intuition, prejudgment, and heuristics reflects cognitive deficiency relative to the "totally logical thinking machine as an ideal—a computer," Fox argues that these characteristic modes of thinking are functional, essential, and represent the "ideal." In this commentary, I address (a) whether Fox's perspective is "new" and (b) what contribution it offers to the study of stereotyping and prejudice.

A New Look?

Despite the fact that Fox's professional training and orientation are outside experimental psychology and his knowledge of social psychology is incomplete, his article astutely reflects the evolution of social psychological theory and research on the nature of prejudice. Consistent with the assumption of an "unfinished mind," the theories that have historically dominated the psychological study of prejudice (e.g., scapegoat theory, relative deprivation theory) have generally pointed to some form of intrapersonal, interperson al, or societal dysfunction. The syllogism implicitly guiding this research has been: Prejudice is bad; bad is abnormal; therefore, people who are prejudiced are abnormal. The psychodynamic orientation that guided the work on the authoritarian personality (Adorno, Frenkel-Brunswik, Levinson, & Sanford, 1950), perhaps one of the best known works on prejudice, provides a classic demonstration of how assumptions of psychopathology influenced mainstream conceptions of prejudice. This research was originally sponsored by the American Jewish Committee to understand the rise of anti-Semitism in the 1930s and the psychological mechanisms that could permit the Nazi atrocities toward Jews. Indeed, as Fox contends, these traditional psychological frameworks have focused on deficiencies, limitations, and dysfunction in the human mind and psyche as the origins of stereotyping and prejudice.

In addition, consistent with Fox's functional perspective, much of the contemporary work that has been stimulated by interest in social cognition is based on the premise that prejudice is substantially rooted in normal processes. A fundamental assumption guiding this research is that humans are limited in their attentional and cognitive capacities. As a consequence, what people normally perceive is not an accurate representation of the objective world, but rather a narrowed, selective, and often biased sampling from that world. For example, people rely on the process of categorization to simplify a complex environment. Categorization typically occurs spontaneously on the basis of physical similarity, proximity, or shared fate (Campbell, 1958). Whereas the categorization of objects on the basis of color or of people on the basis of race or ethnic group is not in itself bias, it does form a foundation for the subsequent development of bias. People tend to value members of their own group more than members of other groups (Brewer, 1979), and social categorization can elicit expectations that guide what is noticed, remembered, inferred, and predicted about a person (Stephan, 1989). Thus, fully consistent with Fox's position, within the cognitive approach, stereotypes are viewed as normal processes aimed at understanding the social world and are conceived as critical aspects of prejudice.

Fox's discussion of the implications of his "new look" also converges with current psychological approaches for reducing intergroup bias. Fox concludes, "The whole point of this argument has been to show that we have no choice but to think in stereotypes. That is what a lot of basic thinking is." Therefore, to reduce undesirable social prejudices, he urges that we build "on human nature to bring about a self-correcting mechanism whereby we try not to replace stereotypical thinking—we can't do that—but to edge out unwanted stereotypes and replace them with those we approve." As Fox suggests and psychological research demon-