The Return of the One-Track Mind

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In their thoughtful and carefully argued target article, Kruglanski and Thompson challenge the central assumption of dual-process theories "that a qualitative difference in the persuasion process hinges on whether persuasion is accomplished by the processing of message arguments versus the processing of information exogenous to the message; that is, by cues or heuristics." I found their arguments very convincing. They persuaded me that on a theoretical level their rejection of the central assumption of dual-process frameworks is justified. Furthermore, I expect that by freeing information processing theories of persuasion from a number of apparently superfluous assumptions, their theoretical analysis is likely to stimulate new areas of persuasion research. On a practical level, however, I think that their analysis will have less of an impact. I suspect that heuristic cues, such as communicator expertise, serve as convenient indicators of message validity because they are both less complex and precede the message in most real-life communication settings.

Theoretical Case

Like the original Mustang or Studebaker cars, the original versions of the dual-process theories were beautifully simple. They postulated two different modes of information processing, one thoughtful and based on careful consideration of message arguments, the other thoughtless, relying on cues and rules of thumb (the economy class of persuasion). The first mode was chosen if people cared about the truth of a given issue and had sufficient cognitive capacity (i.e., were clever, well-informed, and able to keep their minds on the job); the second mode was chosen if they lacked care or cognitive capacity. The two modes also differed in their consequences: People who changed their opinions only after careful consideration of all aspects of an issue were much more likely to adhere to their new position than those who had changed rather mindlessly. This (textbook) theory, to which parenthood was probably never acknowledged by its alleged progenitors, allowed strong predictions, was easy to teach to students, and was a joy to examine with multiple-choice items.

The first shattering blow to this elegant structure was delivered nearly a decade ago by Chaiken, Liberman, and Eagly (1989) themselves. In an important theoretical article, these authors explicitly acknowledged that the two modes of information processing were not mutually exclusive but could co-occur, and that heuristic processing could also result in enduring attitude change. They also introduced the assumption that processing may be motivated by factors other than concern for the truth (i.e., accuracy). The new enriched model became a much more powerful theory than the old one (as the later Mustangs were probably better cars). But what it had gained in explanatory power, it had lost in charm. It also made life difficult for teachers of introductory social psychology classes. "Why do we have to distinguish two modes of information processing in persuasion," students began to ask, "if both are used at the same time and often have the same consequences?" By rejecting the notion that there are two types of evidence and thus two modes of persuasion, Kruglanski and Thompson provide a rather radical answer to this question.

Initially, I found their answer difficult to accept. After all, the distinction between cues and heuristics and message arguments is not only crucial to the edifice of dual-process theories, it also has a great deal of face validity. To give a simple example, what would happen if reviewers of journal articles would base their recommendation on a recital of the author's scientific merits and publication list rather than focusing on the merits of the manuscript at hand? No journal editor would accept this. In fact, the "blind review" procedure of many journals has been explicitly designed to prevent reviewers from being influenced by such incidental cues. However, this kind of objection poses no problem to Kruglanski and Thompson, who readily accept that the informational content of cues and heuristics may differ from that of message arguments. Their point is that both can be subsumed as special cases of persuasive evidence. They are special cases (rather than different species) because both types of evidence can be evaluated in terms of the same syllogistic reasoning.

In reducing persuasion to one general mode of information processing, Kruglanski and Thompson offer a theory that is more parsimonious than dual-process theories. However, although one typically needs to make fewer specific assumptions for the derivation of theoretical predictions from the unimodel than from dual-process theories, the predictions themselves turn out to be surprisingly similar. For example, according to the unimodel, heuristic beliefs are normal everyday beliefs that, like other beliefs, vary in strength. The strength of the heuristic belief that experts are usually right is reflected by the subjective probability attributed

to this association. In some areas I may have more trust in experts than in any of my own knowledge. For example, in buying a vacuum cleaner I may base my opinion more heavily on recommendations made by *Consumer Reports* than on my own experience from personal test trials of different models (and may thereby vastly increase my chance of becoming the owner of an efficient dust-sucking device). In buying wines, on the other hand, I may trust my own extensive experience more heavily than that of any expert. It should be readily apparent that the solution in terms of the relative strengths of beliefs does not differ dramatically from the dual-process assumption that my lack of processing ability (i.e., knowledge about vacuum cleaners) influences my choice of processing mode (i.e., reliance on *Consumer Reports*). Similarly, from the perspective of the unimodel, the issue of the combined impact of heuristic cues and message arguments on persuasion becomes simply a matter of applying models of information integration to a set of beliefs. Again, the resulting predictions, although drawing on more general theoretical principles, are not dramatically different from those derived by Chaiken et al. (1989) and Petty (1994) from their dual-process perspective.

One problem I still have in accepting the unimodel, however, is that by arguing that there is only one mode of persuasion or information processing, Kruglanski and Thompson also insist that this mode is based on syllogistic reasoning, however rudimentary. Thus, they appear to abandon one of the great strengths of dual-process models, namely the claim that persuasion does not always have to be based on a rational analysis of evidence. However, this criticism is only justified if we perceive any syllogistic reasoning as rational, even if it is based on totally irrational premises.

Empirical Evidence

The theoretical case made by Kruglanski and Thompson is so compelling that the empirical evidence presented in the second half of the article is nearly an anticlimax. Having already been converted to the unimodel, the findings reported in their empirical section held little surprise. With dozens of studies conducted in the dual-process tradition, demonstrating that participants peruse information more carefully if it is relevant to them, it seemed unsurprising that they did not only do this with the arguments contained in the message but also with the information contained in the exposé.

This reaction is somewhat unfair because Kruglanski and Thompson had to challenge overwhelming empirical evidence that appeared to contradict their unimodel. The most convincing support for dual-process theories comes from studies that jointly manipulated processing motivation (or ability), argument quality, and source expertise (e.g., Petty, Cacioppo, & Goldman, 1981). These studies consistently reported that argument quality had greater impact on persuasion than source expertise for individuals who were able and motivated to process the message, whereas source expertise had a greater impact than argument quality for all the others. Such findings were typically taken as evidence that heuristic cues and argument quality impact persuasion via different modes.

Kruglanski and Thompson offer a plausible reinterpretation of these findings, which makes them consistent with their unimodel. They point out that the information presentation in all of these experiments was characterized by a confounding of "type of information" on the one hand, with "complexity and length" and "ordinal position" on the other. In all of these studies, the (cue) information regarding source expertise was shorter and less complex than the arguments contained in the message and the (cue) information was presented prior to the message arguments. Kruglanski and Thompson argue that the observed interactions between ability and motivation, heuristic cues, and argument quality on persuasion were due to these differences in ordinal position and complexity and lengths rather than to qualitative differences in information or information processing. Thus the "lazy minds" based their evaluation on the cue information rather than message arguments not because they required heuristic information for their preferred (heuristic) mode of information processing, but because this information was placed conveniently early in the message and easy to interpret. If the message arguments had been given before the credentials of the communicator and had been simpler to interpret, then, Kruglanski and Thompson argued, those lazy minds would have based their opinion on message arguments. Thus, these findings are consistent with the unimodel, which shares the basic assumption of dual-process theories that cognitive capacity and motivation are important determinants of the extent to which individuals process persuasive communications.

To demonstrate the validity of their reinterpretation, Kruglanski and Thompson conducted a series of experiments in which communicator expertise was operationalized in terms of a detailed exposé (e.g., brief vita) rather than the typical one-line description. (In addition, participants were presented with a set of arguments of moderate to high quality.) Results demonstrated that the extent of participants' scrutiny of these exposés (and consequently the impact of communicator expertise on persuasion) was not only influenced by relevance but also by all the other factors that normally enhance or interfere with argument-relevant thinking.

It might have been more elegant if they had complemented these experiments with a further study in which type of evidence (heuristic cue, message arguments) ordinal position (first, second), and length and complexity (long/complex, short/simple) had been

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manipulated in a factorial design. However, for reasons outlined later, this type of study might have been difficult to conduct. Moreover, the empirical evidence presented in this commentary is sufficient to justify the conclusion that "*Controlling for information length and complexity*, the same persuasively relevant variables (processing motivation and cognitive capacity) seem to interact with *heuristic/message argument information* in the same ways that they were found to interact with message argument and heuristic information in prior research" (italics added).

Practical Relevance

The practical (but not the theoretical) relevance of the unimodel hinges on the question of whether the dual-process or the unimodel paradigms are more representative of real-life communication settings. Both types of theories make the same predictions regarding the relative impact of heuristic cues and message arguments for communications in which the heuristic cues are shorter and less complex than the message arguments and presented first. Therefore, the unimodel would only be important to practitioners if this type of communication were unrepresentative of (i.e., infrequent in) real-life communication settings. Whereas practitioners would not be interested in theoretical puzzles such as whether systematic and heuristic processing differ merely in intensity or also in quality, they would take notice if dual-process models would frequently make false predictions regarding the relative impact of heuristic cues and argument quality.

Kruglanski and Thompson argue that in view "of the infinite heterogeneity of real-world situations, the frequentist argument—that in the real world the cue or heuristic versus message argument distinction is confounded actuarially with the length and complexity of information, its relevance, or its ordinal position—is rather difficult to verify." It is here that I have to disagree. Since when has the fact that the world is complex prevented social psychologists from conducting research on the covariation of events? Admittedly, this is an empirical issue to be clarified by further research. But I am fairly confident that such research would demonstrate (a) that source information nearly always precedes message arguments and (b) that source information is also typically less complex than these arguments. One only has to ask oneself when has one last read a communication without having been aware of the identity of the source? With practically all written communications, whether from mass media or personal, we know the source of the communication before we read the message. (This is why anonymous letters are so unusual and so disturbing.)

I would also argue that message arguments are practically always more complex than information about source credentials. Message arguments have to consist of whole sentences and more than one argument is usually needed for a well-argued communication. In contrast, source credentials can be (and often are) conveyed by two or three letters indicating academic or professional titles. The use of an exposé is rare in everyday life. Although curricula vitae are sometimes used to establish expertise, this usually occurs in professional situations such as court cases or hiring and promotion committees. (In the latter we are not only concerned with expertise but also with relative standing.) We are unlikely to ask for the publications of our dentist before accepting his or her recommendation to use dental floss regularly.

I could continue this with many more examples, but because we are all aware of the biases that can be introduced by the availability heuristic, I will not pursue this line of argument any further. Instead, I would like to offer a theoretical speculation that would also lead me to suspect that heuristic cues precede, and are less complex than, message arguments. If one asks oneself how a certain aspect of the environment becomes a cue for some other event, a number of reasons come to mind: The cue must have some predictive validity, typically precede the event (or at least co-occur with it), and be more easily interpretable. Why should people use something as a cue if it is nondiagnostic, more complex than the event it is supposed to predict or help to interpret, and occurs only after the event?

Conclusions

Ever since the introduction of dual-process models of persuasion in the early 1980s, theoreticians have chipped away at the foundation of these theories. Although they continued to maintain the assumption that there are two qualitatively different modes of persuasion, they challenged many of the differences that appeared to distinguish the two modes of information processing. These modifications have spoiled the elegant simplicity of the original models and turned them into structures of ever increasing complexity. By arguing that there is only one mode of persuasion, Kruglanski and Thompson brought this process of erosion to a logical conclusion. In my view, they have done a great service to persuasion research. Once the dust has settled, people will realize that nothing much has changed. The assumption that sequential processing is caused by qualitative differences in the persuasion process (due to qualitative differences in the nature of the information that is presented) will have to be replaced with the assumption that communicator credentials (and other heuristic cues) come earlier and are more easily processed than message arguments. We can then continue to predict that those who expend less effort on information processing will be most heavily influenced by these heuristic cues. The impact of these cues on persuasion will be weakened to the extent that there are many message arguments and that message recipients are able

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and willing to process them. Thus, far from having collapsed, the theoretical structure on which most of recent persuasion research has been based has remained solid. The major theoretical contribution made by Kruglanski and Thompson may therefore not lie in their rejection of the dual-process assumption but in their demonstration that this assumption was not really essential for most of the theoretical predictions derived from dual-process theories.

Notes

I am grateful to Margaret Stroebe and John de Wit for comments on an earlier draft of this commentary.

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