

Similarly, Macbeth is dealing with two distinct framed outcomes, *Murdering the King* and *Bravely Taking the Throne*, which happen to share an extension in his context. In this case, there are also two distinct framed alternatives, *Fulfilling his Double Duty to Duncan* and *Backing Away from his Resolution to Make the Prophecy come True*. These too are co-extensive. Macbeth's preference between *Murdering the King* and *Fulfilling his Double Duty to Duncan* is supposed to be independent of his preference between *Bravely Taking the Throne* and *Backing Away from his Resolution to Make the Prophecy come True*. Macbeth prefers *Fulfilling his Double Duty to Duncan* to *Murdering the King*, while also preferring *Bravely Taking the Throne* to *Backing Away from his Resolution to Make the Prophecy come True*. Again, since Macbeth's preferences range over framed outcomes, rather than outcomes themselves, it is argued that his preferences are consistent.

Whatever the other merits of defining preferences over framed outcomes, I deny that doing so can justify patterns of preferences like Agamemnon's or Macbeth's. This is because both agents are stipulated to *know* that they are dealing with pairs of frames which describe the same outcome. In each case, then, that common outcome, must be an object of the agent's intentional state of knowledge. Whether it is an extensional phenomenon or just another framed outcome, it must at least be neutral between the two target frames; otherwise it would be impossible to know that it is shared by each. So, knowing that two frames have the same outcome involves having an intentional state, the object of which is a relevantly frame-neutral outcome. And, once we have accepted that agents are able to think about relevantly frame-neutral outcomes, there is no reason to suppose that their thoughts and preferences should be restricted only to the two framed outcomes.

We can unpack this a little by re-examining Agamemnon's dilemma. As Bermúdez explicitly asserts, Agamemnon knows full well that *Following Artemis's Will* and *Murdering his Daughter* are the same outcome, differently framed. Yet if Agamemnon knows this, then an object of his intentional state of knowing is an outcome that is necessarily independent of – or neutral between – these two alternative ways of framing it. In other words, Agamemnon can and does think about the outcome independently of the two frames in question. Given this, there is no reason to suppose that his preferences should range only over the framed outcomes *Following Artemis's Will* and *Murdering his Daughter*. Instead, Agamemnon's preferences can concern the frame-neutral outcome – say, *Killing Iphigenia*.

In fact, it seems entirely right that Agamemnon's preferences do concern the frame-neutral outcome. He fully appreciates that there are strong reasons for and against killing Iphigenia. These competing reasons do not remain frame-relative, even if they are initially made more salient by one or other frame. Instead, Agamemnon recognises that the reasons pertain simultaneously to the single shared outcome. The great difficulty he faces is in how to weigh them up and decide which should take precedence. Thus, Agamemnon's dilemma is substantive, not merely linguistic. Indeed, it may be precisely Agamemnon's ability to reason beyond the two frames – and not remain bound by them – that makes his dilemma so acute.

Note that, if this analysis is correct, Agamemnon's preferences are straightforwardly cyclical. He oscillates between two diametrically opposed preference orderings, sometimes preferring the frame-neutral outcome *Killing Iphigenia* to the alternative of *Failing His Ships and People*, and sometimes the reverse. By Bermúdez's own lights, such cyclical preferences cannot be rationally maintained.

A parallel analysis can be run for Macbeth, and for each of Bermúdez's examples concerning self-control, strategic coordination, and discursive deadlock. This is no accident, as the criticism generalises across the set of framing effects Bermúdez is interested in. After all, he explicitly focuses on situations where agents are well aware that they are framing a single outcome in different ways. As I have argued, such awareness requires agents to be conceptualising the outcome in a relevantly frame-neutral way. It is then no longer clear why they cannot or should not have preferences about the frame-neutral outcome. On the contrary, it seems absolutely right that they can and should.

Bermúdez's argument, then, does not allow us to conclude that there are rational quasi-cyclical preferences. Instead, I believe Bermúdez must acknowledge that agents can and do conceptualise outcomes in relevantly frame-neutral ways; and that their preferences can and do range over these frame-neutral outcomes.

There might still be some other route to the conclusion that preferences like Agamemnon's and Macbeth's are ultimately rational. However, I believe this would require an entirely different line of argument. For a sketch of how it could look, see Fisher (2022). In the meantime, the jury remains out on such cases.


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Even simple framing effects are rational

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Abstract

Bermúdez persuasively argues that framing effects are not as irrational as commonly supposed. In focusing on the reasoning of individual decision-makers in complex situations, however, he neglects the crucial role of the social-communicative context for eliciting certain framing effects. We contend that many framing effects are best explained in terms of basic, rational principles of discourse processing and pragmatic reasoning.

Bermúdez presents a persuasive case that framing effects are not as “irrational” as commonly supposed. It is interesting to consider intra-individual variation in preferences over time and across contexts as a kind of framing effect, where complex decision-making is cast as an iterative process of reasoning from different perspectives. Yet by focusing on the reasoning of individual decision-makers, Bermúdez’s account neglects the crucial role of the social-communicative context in explaining why (at least some) framing effects arise. Language is the central medium for communicating our beliefs and attitudes and persuading others to adopt them. We argue, as a result, that many framing effects are best explained in terms of basic principles of discourse processing and pragmatic reasoning. This framework highlights a key mechanism by which framing operates: Subtle linguistic cues communicate the speaker’s knowledge and perspective on a target problem, and decision-makers rely on those cues to draw reasonable inferences about the problem. Therefore, even seemingly “simple” framing effects are rational.

To differentiate his account from the existing literature, Bermúdez describes certain “classic” framing effects as the consequence of a basic “priming” mechanism, where exposure to a frame “activates” a dimension/attribute of the target problem, driving reasoning. This may be a textbook account of framing – and a useful way to frame the target article – but it paints an oversimplified picture of how people process language. It also fails to capture certain findings in the framing literature. For example, much research has shown that framing social issues using metaphors can shape attitudes in a metaphor-congruent fashion (e.g., Thibodeau & Boroditsky, 2011; Thibodeau, Crow, & Flusberg, 2017). When people read a news story that frames crime as a *beast* (vs. a *virus*) ravaging a city, they are more likely to propose enforcement-related solutions to the crime problem that are consistent with how people would address a literal beast problem (Thibodeau & Boroditsky, 2011). In these same studies, however, simply priming participants with the metaphorical source domain (beast or virus) has no effect on their responses. Rather, the metaphor must be used *in context* to describe the social issue in order to impact reasoning. These findings situate common framing effects under the rubric of basic discourse processing (Graesser, Millis, & Zwaan, 1997; Thibodeau & Flusberg, *in press*; Zwaan & Radvansky, 1998). Language comprehension involves dynamically integrating linguistic input with prior knowledge to generate a mental representation of the topic of discussion. When the topic is unfamiliar, abstract, or complicated – like crime – metaphors serve as useful scaffolding, structuring the listener’s representation of the target domain. While exposure to different metaphors may result in different representations, this is a rational response to (subtle) variation in message content – analogous to the quasi-cycles of iterated reasoning Bermúdez describes for individual decision-makers.

Effective language processing also requires that listeners make certain assumptions about the communicative intentions of the speaker. For example, listeners infer that specific words and phrases were chosen because they are relevant and informative (Goodman & Frank, 2016; Grice, 1975; Sperber & Wilson, 1986). Recent evidence suggests that this ability to “read between the lines” and grasp the pragmatic implications of a linguistic frame is critical for many framing effects to obtain (e.g., Flusberg et al., 2022; Holmes, Doherty, & Flusberg, 2021; Leong, McKenzie, Sher, & Müller-Trede, 2017). In one set of studies, we examined the impact of “victim framing” on attitudes toward sexual assault. Participants read a news report that

described an alleged sexual assault, often in vivid detail. The report also included a quote from a friend, reflected in the headline, that framed either the accuser as the victim (of assault) or the alleged perpetrator as the victim (of false accusations). Relative to a baseline condition, participants expressed more support for the victim-framed character and less support for the other character. However, this was only the case for those who explicitly cited the framing language as influencing their evaluations – suggesting they surmised that the writer chose to cast one individual as a victim *for good reason* (i.e., to signal who deserves support; Flusberg et al., 2022).

In another set of studies, we assessed people’s ability to pick up on the pragmatic implications of subject–complement statements of equality. Sentences like “girls are just as good as boys at math” appear to express an equivalence between two social groups, yet people tend to infer that the group in the complement position – in this case, “boys” – is superior (Chestnut & Markman, 2018). As a result, these sentences can perpetuate, counteract, and even generate new stereotypes in framing studies that manipulate which groups occupy the subject versus complement positions (Chestnut & Markman, 2018; Chestnut, Zhang, & Markman, 2021; Holmes et al., 2021). In a recent study, we measured participants’ ability to discern the pragmatics of this syntax by asking them, for example, to infer the beliefs of a journalist who uses a particular subject–complement statement of equality (e.g., “Balurians are just as good as Arigans at cooking” implies that the journalist believes Arigans are the superior chefs). Only those who could successfully recognize these subtle pragmatics showed significant framing effects in an experiment that used similar statements to frame the math abilities of various social groups (e.g., “children from Wyoming do just as well as children from Montana at math”; Holmes et al., *in prep*; Wu, Elpers, Doherty, Flusberg, & Holmes, 2021). This is consistent with other work showing that even logically equivalent frames (e.g., a basketball player who “makes 40%” vs. “misses 60%” of his shots) communicate subtly different speaker appraisals, which sensitive listeners readily incorporate into their decision-making (e.g., Leong et al., 2017; McKenzie & Nelson, 2003; Sher & McKenzie, 2006).

Taken together, such findings suggest a rational basis for seemingly simple framing effects: Decision-makers infer that specific labels or syntactic constructions communicate relevant information about the target issue and – quite sensibly – use this information in the course of their decision-making. Iterative, quasi-cycles of reasoning about complex situations, while fascinating, are not necessary to reveal the rationality of framing.

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References

- Chestnut, E. K., & Markman, E. M. (2018). “Girls are as good as boys at math” implies that boys are probably better: A study of expressions of gender equality. *Cognitive Science*, 42(7), 2229–2249. <https://doi.org/10.1111/cogs.12637>
- Chestnut, E. K., Zhang, M. Y., & Markman, E. M. (2021). “Just as good”: Learning gender stereotypes from attempts to counteract them. *Developmental Psychology*, 57(1), 114–125. <https://psycnet.apa.org/doi/10.1037/dev0001143>
- Flusberg, S. J., van der Vord, J., Husney, S. Q., & Holmes, K. J. (2022). Who’s the “real” victim? How victim framing shapes attitudes towards sexual assault. *Psychological Science*, 33(4), 524–537. <https://doi.org/10.1177/09567976211045935>.

- Goodman, N. D., & Frank, M. C. (2016). Pragmatic language interpretation as probabilistic inference. *Trends in Cognitive Sciences*, 20(11), 818–829. <https://doi.org/10.1016/j.tics.2016.08.005>
- Graesser, A. C., Millis, K. K., & Zwaan, R. A. (1997). Discourse comprehension. *Annual Review of Psychology*, 48(1), 163–189. <https://doi.org/10.1146/annurev.psych.48.1.163>
- Grice, H. P. (1975). Logic and conversation. In P. Cole & J. Morgan (Eds.), *Syntax and semantics* (vol. 3, pp. 41–58). Academic Press.
- Holmes, K. J., Doherty, E. M., & Flusberg, S. J. (2021). How and when does syntax perpetuate stereotypes? Probing the framing effects of subject–complement statements of equality. *Thinking & Reasoning*. <https://doi.org/10.1080/13546783.2021.1963841>
- Holmes, K. J., Wu, S. H., Elpers, N., Doherty, E. M., & Flusberg, S. J. (in prep). How syntax shapes beliefs about social groups: The role of stereotypes and pragmatic reasoning.
- Leong, L. M., McKenzie, C. R., Sher, S., & Müller-Trede, J. (2017). The role of inference in attribute framing effects. *Journal of Behavioral Decision Making*, 30(5), 1147–1156. <https://doi.org/10.1002/bdm.2030>
- McKenzie, C. R. M., & Nelson, J. (2003). What a speaker's choice of frame reveals: Reference points, frame selection, and framing effects. *Psychonomic Bulletin & Review*, 10(3), 596–602. <https://doi.org/10.3758/BF03196520>
- Sher, S., & McKenzie, C. (2006). Information leakage from logically equivalent frames. *Cognition*, 101(3), 467–494. <https://doi.org/10.1016/j.cognition.2005.11.001>
- Sperber, D., & Wilson, D. (1986). *Relevance: Communication and cognition* (vol. 142). Harvard University Press.
- Thibodeau, P. H., & Boroditsky, L. (2011). Metaphors we think with: The role of metaphor in reasoning. *PLoS ONE*, 6(2), e16782. <https://doi.org/10.1371/journal.pone.0016782>
- Thibodeau, P. H., Crow, L., & Flusberg, S. J. (2017). The metaphor police: A case study of the role of metaphor in explanation. *Psychonomic Bulletin & Review*, 24(5), 1375–1386. <https://doi.org/10.3758/s13423-016-1192-5>
- Thibodeau, P. H., & Flusberg, S. J. (in press). Metaphor and elaboration in context. In H. L. Colston, T. Matlock, & G. J. Steen (Eds.), *Dynamism in metaphor and beyond* (pp. 223–240). John Benjamins Publishing.
- Wu, S. H., Elpers, N., Doherty, E. M., Flusberg, S. J., & Holmes, K. J. (2021). *Pragmatic reasoning ability predicts syntactic framing effects on social judgments*. Poster presented at the 43rd Annual Meeting of the Cognitive Science Society [online].
- Zwaan, R. A., & Radvansky, G. A. (1998). Situation models in language comprehension and memory. *Psychological Bulletin*, 123(2), 162–185. <https://doi.org/10.1037/0033-2909.123.2.162>

Consistent preferences, conflicting reasons, and rational evaluations

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Abstract

Bermúdez's arguments in favour of the rationality of quasi-cyclical preferences conflate reasons, desires, emotions, and responses with genuine preferences. Rational preference formation requires that the decision-makers not only identify reasons, but also weigh them in a coherent way.

In what sense is standard decision theory a theory of *rational* decision? Although it is neutral about the content of people's preferences, the theory imposes a few constraints on their shape: It requires that preferences are “well-ordered” or “consistent,” as specified by axioms such as completeness, transitivity, and independence. This axiomatic conception of rationality, however, conceals a deeper sense in which the agents of decision theory make rational decisions. Significant decisions typically involve conflicting reasons – there are reasons to do X, but also reasons to do Y, when X and Y are available. An abundant snowfall followed

by a spell of sunshine may give me a good reason to go skiing, for example, but the fact that I haven't visited my parents for a while may give me a good reason not to do so. As Bermúdez correctly points out, we often become aware of such conflicts by looking at the same situation from different perspectives – the perspective of the ski-lover versus the perspective of the good son, in the example above. Endorsing (partially, and preliminarily) different frames is indeed an effective way to make sure that all reasons – the reasons that can possibly matter to us – are taken into consideration in the process of decision-making.

Why “partially” and “preliminarily”? Rational decision theory requires that preferences are consistent. Consistency, in turn, requires that each option is assigned a stable value, and that the value of each option reflects the relative value of different *aspects* of the option. The value of each aspect and each option must then be weighed against the values of other options (and their aspects). This weighing process is the truly difficult part of decision-making, as we all know from personal experience. It is a common complaint that the standard theory does not offer much help in making up one's own mind and weighing different options. But it does give *some* help, if only as a warning: When the preferences that are produced by the weighing process turn out to be inconsistent, then we know that something wrong must have happened. Some aspect of an option, for example, must have been evaluated differently in contexts that are effectively identical – as in the framing effects described by Bermúdez in his paper.

The point of framing, to put it differently, is not simply to see things from a different perspective, however intellectually pleasing this may be. The point is to make up one's own mind, to decide what the relative value of different options (and aspects of the options) *really* is. A rational agent thus cannot simply endorse one frame and then another. The rational decision-maker must *compare* the (partial, frame-dependent) reasons or valuations that each frame has elicited, and come up with an all-things-considered evaluation of the alternative options.

According to a prominent proposal, a preference just *is* an “all-things-considered evaluation” (Hausman, 2011). Whether this conception of preference is adequate in the descriptive psychological sense is controversial (e.g., Angner, 2018), but there is little doubt that it fits the standard account of *rational* decision-making. Bermúdez unfortunately constantly conflates preferences with cognate entities, such as emotions, desires, or “responses.” One of his working hypotheses goes, for example:

(H3) Framing effects and quasi-cyclical preferences can be rational in circumstances where it is rational to have a complex and multi-faceted response to a complex and multi-faceted situation.

But a “response” is not a preference. It may be a gut reaction, an emotion, or a *pro tanto* evaluation, in which case it may constitute part of the input for preference-formation. It may even be a choice made impulsively before the process of due diligence has been properly completed. But, alas, in such a case it would be an irrational choice, not a preference in the proper, all-things-considered sense.

Examples can be found easily in Bermúdez's paper: Agamemnon may *want* to follow Artemis's will (under the grip of frame A), and may *want* to fail his ships and people (under the grip of B), but he cannot *prefer* both. Macbeth may have a *desire* or a *reason* to fulfil his double duty to Duncan, and another desire or reason to take the throne, but he cannot *prefer* both, in the sense of rational preference. Another way to put it is that a