

OPEN PEER COMMENTARIES



The Quest for Personal Significance and Ideological Violence

Arie W. Kruglanski  and Molly Ellenberg

University of Maryland

“The dark side of morality” (Workman, Yoder, and Decety 2020) examines the neural relationship between political violence and moral conviction. At the outset of the article, the authors present two hypotheses concerning the connection between violence, a primitive behavior, and moral conviction, a uniquely human trait. When individuals endorse violence in a pursuit of a moral cause, it may be that the normal inhibition of violence in the dorsolateral prefrontal cortex is suppressed in a top-down decision-making process. It is also plausible that moral conviction is represented as strong motivational salience in the ventral striatum and the ventromedial prefrontal cortex. The latter hypothesis was supported by the results of the authors’ fMRI study of 32 liberal young adults from the Chicago area who were more likely to rate violent behavior as appropriate when they believed that the individuals engaged in the violence shared their sociopolitical beliefs. The former hypothesis of executive inhibition was not strongly supported in the present study though it was supported in earlier experiments (Buckholtz et al. 2008; Ruff, Ugazio, and Fehr 2013; Yoder and Decety 2014).

In light of humans’ perennial proclivity for ideologically motivated violence, understanding its neural substrate is an important imperative for social neuroscience, as it is for behavioral science more generally. In recent years, we have been addressing these issues from a motivational-cognitive perspective (Kruglanski et al. 2019, 2020). Our purpose in the present paper is to consider Workman et al.’s (2020) interesting results and comment on them from our unique theoretical perspective. Basically, our approach to ideological violence is contained in two interrelated theoretical models, our extremism model that explains violence and our significance model that examines its moral underpinnings. Both models assume that to understand human behavior it is incumbent to understand the motivations that drive it. To cut to the chase, we

propose that moral values aren’t the ultimate motivational basis for violent behavior, but rather the means to personal significance, which is.

THE EXTREMISM MODEL

Kruglanski et al. (2020) proposed that extremism of all kinds, including violent extremism, occurs when a given fundamental need becomes dominant to the point of suppressing other needs. When that happens, the constraints that those other needs normally exercise upon behavior are weakened and all kinds of behaviors, including violent behavior, that serve the dominant need are now released.

THE SIGNIFICANCE MODEL

The Significance Model (Kruglanski, Bélanger, and Gunaratna 2019; Kruglanski, Webber, and Koehler 2019) addresses the human quest for significance and recognition. It posits that significance is accorded to those who serve, or personify in their attributes, important social values. When the quest for significance becomes dominant (either due to perceived loss of significance, or the incentive of gaining substantial significance) other concerns become suppressed (as per the extremism model above). This releases behavior formerly constrained by the latter concerns (of empathy for others, relatedness, love) and allows it to be enacted. Thus, violent behavior is enabled where it is perceived to serve a dominant quest for significance through promoting important societal values, like freedom, democracy or the defense of one’s group against its enemies.

In other words, ideological violence is enabled in the serve of the quest for significance that overshadows other common concerns. In this view, moral ideals aren’t an end in themselves but rather serve a means to gratifying a basic human need, that for significance and respect. In what follows we bring this

perspective to bear on Workman et al. (2020) findings.

WORKMAN ET AL. (2020) RESULTS

If, as we have delineated, the use, or even endorsement of violence, requires a strong motivational involvement in which a given need assumes temporary ascendance over others, this should be manifest in activity in the motivationally relevant areas of the brain. Consistent with this notion, Workman et al. (2020) find evidence for such activity in areas including the ventral striatum, ventromedial prefrontal cortex, and the amygdala, the three of which comprise a motivational reward circuit related to subjective value. Both moral conviction and participants' judgements of the appropriateness of violence were related to activity in those regions, but also and even more pronouncedly to activity in the deeper levels of the prefrontal cortex such as the posterior medial prefrontal cortex as well as other limbic areas such as the hippocampus.

These activation patterns are consistent with the notion that the participants' need for significance was aroused by scenarios depicting protestors whose values agreed with their own. Protesting on behalf of subjectively important values, of freedom, democracy, or nationalism is a means to attaining significance. Hence, it should activate the need for significance in a bottom-up fashion, that is from means to ends (cf. Shah and Kruglanski 2003). It makes sense that the entire package including the moral conviction the violence on behalf of the moral value and the motivation for significance should be related to the neural activation pattern, although Workman et al. (2020) measured only the former two (i.e. moral conviction and approval of violence). From our theoretical perspective, in fact, it is activation of the quest for significance, the need component of the phenomenon, that is important. Perhaps in subsequent work, this need could be manipulated independently, and the effect of this on ideologically motivated violence (with which one agreed or disagreed) and the corresponding neural patterns could be observed.

DISINHIBITION OF VIOLENCE

According to our extremism model (Kruglanski et al. 2020), the release of extreme behaviors, like violence, from the usual constraints requires that the focal need (the need for significance in the present instance) override the alternative concerns. In this respect, it is

noteworthy that Workman et al. (2020) did not find activation in the dorsolateral prefrontal cortex involved in overriding prepotent responses and applying social norms (Buckholtz and Marois 2012). The dlPFC was activated in response to seeing photographs of morally congruent, but not incongruent, violence, suggesting that the dlPFC was involved in identifying such moral congruence, but was not correlated with participants' moral convictions about the sociopolitical issue or their judgements regarding the appropriateness of the violence. This would seem consistent with our hypothesis that a prepotent need (the quest for significance) was in fact allowed to dominate other concerns (empathy, prohibition of violence) and that, consequently the social norms that would constrain behavior inconsistent with those concerns were not applied.

It was also found, however, that the dlPFC is activated in response to assigning blame and praise to morally laden everyday actions (Buckholtz et al. 2008; Yoder and Decety 2014). It was not clear to us whether these results are inconsistent with the Workman et al. (2020) finding of the absence of dlPFC activation in the present context. It is possible, for instance, that the positive response that one would expect from ideologically consistent behavior was attenuated by the enactment of violent behavior that from other perspectives is typically eliciting disapproval.

A FINAL THOUGHT

Conceptually and methodologically, the cognitive-behavioral level analysis can afford to be a great deal more differentiated than analysis at the neural level. With respect to politically motivated violence, one can distinguish between (1) the violent behavior as such, (2) the focal need that prompted the behavior (3) the moral value (the ideal) in whose name the behavior was undertaken, (4) the alternative, pro social, needs incompatible with the behavior and so on (Kruglanski et al. 2020). Given the plasticity of brain functions, and the multiple-functionality of brain region it is a challenge to both behavioral and neural scientists to figure out the way in which the neural substrate of complex behavioral phenomena like ideologically motivated violence is best understood.

ORCID

Arie W. Kruglanski  <http://orcid.org/0000-0002-4777-9299>

REFERENCES

- Buckholtz, J. W., C. L. Asplund, P. E. Dux, D. H. Zald, J. C. Gore, O. D. Jones, and R. Marois. 2008. The neural correlates of third-party punishment. *Neuron* 60 (5):930–40. doi:10.1016/j.neuron.2008.10.016.
- Buckholtz, J. W., and R. Marois. 2012. The roots of modern justice: Cognitive and neural foundations of social norms and their enforcement. *Nature Neuroscience* 15 (5): 655–61. doi:10.1038/nn.3087.
- Kruglanski, A. W., J. J. Bélanger, and R. Gunaratna. 2019. *The three pillars of radicalization: Needs, narratives, and networks*. Cambridge, UK: Oxford University Press.
- Kruglanski, A. W., J. R. Fernandez, A. R. Factor, and E. Szumowska. 2019. Cognitive mechanisms in violent extremism. *Cognition* 188:116–23. doi:10.1016/j.cognition.2018.11.008.
- Kruglanski, A. W., E. Szumowska, C. Kopetz, R. Vallerand, and A. Pierro. 2020. On the psychology of extremism: How motivational imbalance breeds intemperance. *Psychological Review* doi:10.1037/rev0000260.
- Kruglanski, A. W., D. Webber, and D. Koehler. 2019. *The radical's journey: How German neo-Nazis voyaged to the edge and back*. Cambridge, UK: Oxford University Press.
- Ruff, C. C., G. Ugazio, and E. Fehr. 2013. Changing social norm compliance with noninvasive brain stimulation. *Science* 342 (6157):482–4. doi:10.1126/science.1241399.
- Shah, J. Y., and A. W. Kruglanski. 2003. When opportunity knocks: Bottom-up priming of goals by means and its effects on self-regulation. *Journal of Personality and Social Psychology* 84 (6):1109–22. doi:10.1037/0022-3514.84.6.1109.
- Workman, C., K. Yoder, and J. Decety. 2020. The dark side of morality: Neural mechanisms underpinning moral convictions and support for violence. *AJOB Neuroscience* 11 (4):269–284.
- Yoder, K. J., and J. Decety. 2014. The good, the bad, and the just: Justice sensitivity predicts neural response during moral evaluation of actions performed by others. *The Journal of Neuroscience* 34 (12):4161–6. doi:10.1523/JNEUROSCI.4648-13.2014.

AJOB NEUROSCIENCE
2020, VOL. 11, NO. 4, 287–289
<https://doi.org/10.1080/21507740.2020.1830886>



OPEN PEER COMMENTARIES



Morality, Valuation and Coalitional Psychology

Pascal Boyer 

Washington University in St. Louis

We are all aware that many people can easily combine general moral understandings that make unprovoked violence inexcusable, with tolerance or even support for that same behavior when it is carried out on behalf of their own political “camp.” But the question remains, what computations are involved in this support.

The data suggest an intriguing and new answer—that the bias that makes some political violence acceptable or even desirable, does not necessarily come from a suspension of intuitive morality, but from a perception of the costs and benefits that could be accrued from political violence. That is a counter-intuitive and important finding.

Since the study addresses the *proximate* aspects of support for violence (how it occurs in the mind, what mechanisms are involved), it may be relevant to

suggest that this important finding is consistent with a consideration of the *ultimate* factors engaged (why such mechanisms are in place and function in that way). I propose to do that by briefly discussing the evolutionary background to our coalitional dispositions.

Coalitional psychology is a crucial element of the human capacity for collective action, in which a collection of agents cooperate toward a particular (set of) goal(s) that cannot be achieved by any single individual (or only at much greater cost); these agents behave in ways that increase each agent’s welfare by making it more likely that the goal is achieved (Hardin 1982). Humans for a long time have required, for their survival and reproduction, extensive support from kin but also from non-kin conspecifics, for example, in hunting (Dubreuil 2010; Kelly 1995), parenting (Hrdy