

Radicalization toward violent extremism: A typology based on a general theory of rationality

Abstract: In the past twenty years, a persistent concern about the growing phenomenon of homegrown terrorism in the West has led many researchers to study the radicalization process toward violent extremism. The potential link between ideology and behaviors is at the center of scientific debates. Some argue that adherence to an ideology is not a necessary condition for political violence. According to this perspective, research should only focus on the study of *behaviors*. Others argue that ideological aspects have an influence at every stage of engagement and that neglecting ideas would be a mistake in attempts at understanding radicalization. In this article, we contribute to that discussion by proposing a better way to understand the connection between ideology and behaviors. Using Raymond Boudon's general theory of rationality, we argue that the process of engagement in violent extremism is a complex combination of actions, decisions, attitudes, behaviors, and beliefs the understanding of which requires the use of a comprehensive sociological approach. Thus, we defend a theoretical perspective based on methodological individualism for the study of radicalization and we develop a general typology for radicalization processes based on this perspective. We also point out how this perspective differs from conventional rational choice theory and other theoretical perspectives used in the field of radicalization studies.

Introduction

The topic of violent extremism has been increasingly studied in the past twenty years. Researchers have indeed attempted to understand why radical groups or individuals end up committing violent actions in the name of an ideology. It is often tempting to pathologize those who commit such actions by describing them as indoctrinated fools, as such actions appear completely irrational from the point of view of most people. However, empirical research has shown that the problem is more complex; individuals committing such violent acts did not do so without reflection. Researchers have thus attempted to connect *ideas* with the final actions. They aimed at understanding what process leads individuals to adhere to a violent ideology and, ultimately, to commit violent actions. Ideology and action are, from this perspective, seen as closely connected. The reason why a terrorist acts is because he or she completely adheres to the violent ideology. This is why governments have attempted to participate in a war of ideas: cognitive radicalization

was seen as the condition for the performance of violent actions. Government research has hence mostly insisted on the ideological aspects of the radicalization process. However, empirical research has also shown that most cognitively radicalized individuals never commit any act of violence and many of those who *do* commit acts of violence are *not* as convinced about the ideological goals as one would expect were the cognitive radicalization process truly a condition for violent acts. Hence, some researchers have suggested that the two processes (cognitive and behavioral radicalization) must be analyzed separately. In other words, the reasons to act violently are separate from the reasons to believe that violence is justified to achieve an ideological goal. But other researchers have pointed out that, even if it is true that adherence to violent ideas does not fully determine violent actions, the fact remains that ideas remain important at each stage of engagement toward violence (even if they are not necessarily accepted by the individual violently acting in the name of an ideology). But what exactly is the link between ideas and actions? And what are the reasons why individuals end up believing in violent ideas or end up committing violent actions? These questions have not been answered in a satisfactory manner and it is thus necessary to further reflect on them.

In this paper, we develop a theoretical approach for the study of radicalization based on Raymond Boudon's general theory of rationality and methodological individualism. In the first section, we delineate the main debates surrounding the relationship between cognitive radicalization and behavioral radicalization. We show that this debate has remained fruitless because of a failure to clearly delineate the reasons actors have to believe and to act. We also show that, because of diverging points of view, researchers identify multiple endpoints to the process of radicalization, leading to the question: should cognitive and behavioral radicalization be considered as analytically distinct phenomena? We defend that, regardless, they can both be studied in the same manner. To demonstrate that point, we explain in the second section the importance of using methodological individualism and Raymond Boudon's general theory of rationality to resolve this question. We present how this allows us to study the adhesion to beliefs as well as the motivations for human behavior. Before ending this article with a discussion on the process of radicalization, we propose an analysis of the types of engagement toward violent extremism. Indeed, we suggest in the third section a typology based on an application of Boudon's general theory to the field of radicalization and provide illustrations and insights for applying this typology to empirical research. Through this typology, we demonstrate that the actor's rationality—broadly conceived

as a subjective process of reflection on interest, values, and truth that is influenced by the actor's own position in his or her social environment—allows us to retain both behavior and ideology in our understanding of engagement in violent extremism (whether in terms of ideas, actions, or both). In this way, we contribute to the debate by proposing a model that allows us to continually improve our knowledge of engagement in violent extremism.

1. Cognitive and behavioral radicalization: a scientific debate

Researchers interested in the topic of radicalization are confronted by the question of how and when the process ends: in other words, what is the endpoint of radicalization? If, to many researchers, the endpoint is the *terrorist act*, other scientists insist on highlighting the diversity of militant actions or ideals which promote political violence. The debate is mainly characterized by dissensions on cognitive radicalization and behavioral radicalization. It is possible to define each of these concepts in the following manner:

Cognitive radicalization involves acquiring values, attitudes, and political beliefs that deviate sharply from those of mainstream society. Behavioral radicalization involves participating in a range of radical activities, whether legal or clandestine, which could culminate in terrorism (Hafez & Mullins, p. 961).

Although violent actions committed by members of ideological groups must be linked in some way to the ideas of the group, empirical evidence suggests that holding violent ideas is in itself a bad predictor in the identification of individuals who will commit violent actions. Thus, academics have been confronted to the puzzling question of what exactly the link between violent ideas and violent actions is.

The cognitive approach

The idea that extremist violent behaviors follow ideological adherence comes from the very first models of radicalization developed in the early 2000s. At that time, many governments were searching for an effective response to the increase in homegrown Islamic terrorism by getting involved in a “war of ideas” (CLG, 2007). Hence, some social scientists as well as law and order officials have developed comprehensive models aiming at identifying the various stages of engagement into violent extremism by putting ideological adherence at the top of their concerns. Indeed, models from governmental authorities mainly focus on ideological adherence. For instance, in a 2006 working document, the FBI (2006) suggested a model to identify the main steps

characterizing the radicalization process. After a discussion on the “pre-radicalization” phase, the document indicates that there is an “identification” phase which corresponds to the adherence to a particular extremist position and to the acceptance of a radical ideology justifying and supporting violence or other criminal activities. This model puts an emphasis on socialization processes in given groups, but this is seen as following ideological engagement (FBI 2006, pp. 7-9). Many other similar models have been proposed by authorities such as the New York City Police Department (Silber & Bhatt, 2007).

In their analyses, academics were more nuanced than governmental authorities. One of the most popular early models is from Quintan Wiktorowicz. Developed in 2004 and refined in 2005, his theoretical model of engagement into violent Islamic extremism includes four processes. The first three processes are mostly linked to ideology, individual context, and spirituality. An individual will first, perceiving the current social context as undesirable, be more cognitively “open” to consider views that are more radical than what is deemed socially acceptable (Wiktorowicz 2005, p. 20), something which is often the result of an identity crisis and a sense of exclusion linked to a perceived discrepancy between Western laws, values, and traditions and his or her faith (Wiktorowicz 2005, pp. 86-92). Second, the actor will seek meaning in radical versions of religion (Wiktorowicz 2005, p. 24). In particular, when such an individual is in contact with a personal network that includes members of radical groups, he or she will be more likely to progressively join the radical group (Wiktorowicz 2005, p. 22) through frame alignment (third process) which suggests to the individual that the radical group has found the solutions to the perceived problems (Wiktorowicz 2004, pp. 6, 9-10; 2005, pp. 24-26, 97-98). This process includes the necessity of finding the group’s leaders as more knowledgeable and authoritative than more mainstream alternatives (see for instance Wiktorowicz 2005, p. 206) Although it is true that radical groups will make efforts to find such individuals, socialization by the radical group can only occur at the very end, as the first three processes are conditions for entering the fourth (Wiktorowicz 2004, p. 1).

Thus, adhesion to the group occurs only after cognitive openness occurred. The first three processes are what leads to group socialization, which is what, in the end, causes the willingness to commit radical actions. Indeed, Wiktorowicz (2004, pp. 1-2; 2005, pp. 17-19) insists on the importance of group socialization in the individual’s choice to participate in risky actions. Socialization is here conceived as an attempt to modify the individual’s conception of his or her

own interest in such a way as to make it seem less costly for him or her to engage in risky behavior (Wiktorowicz 2005, p. 6). In other words, once the socialization process is complete, the rewards gained in the afterlife by engaging in such behaviors are perceived as higher than the potential costs paid during the earthly life. Wiktorowicz's model aims, on the one hand, at providing a rationalist alternative to the usual (pathologizing or structural) explanations found in many studies on Islamic terrorism and, on the other hand, at providing a more individualistic account than rationalist theories that concentrate on group tactics (Wiktorowicz 2005, pp. 11-14).

Another example of research insisting on the importance of cognition is from psychologist Fathali Moghaddam. He uses the metaphor of a narrowing staircase to explain the process toward violent extremism (Moghaddam 2005, p. 161). First, the large "ground floor" is constituted of psychological interpretations related to material conditions. This ground floor includes, for instance, perceptions related to a lack of fairness and justice as well as a sense of frustration and shame. It is not deprivation *per se* that leads to the next step toward violent extremism; the transition to the first floor is rather made by individuals whose perception of unfairness leads to a desire to fight what is seen as unfair treatment (Moghaddam 2005, p. 163). Of course, at this stage, there remains many peaceful ways to attempt to fight these perceived injustices. It is only once one shows increasing aggressivity toward an identified "other" (e.g.: a movement, a government, a minority group, an individual, etc.), who is accused of being the main cause of perceived injustices, that one reaches the second floor (Moghaddam 2005, p. 164). The individual has now found a guilty party responsible for the unfair treatment but is not yet considering violent action as an appropriate means to correct the situation. It is the discovery of an ideology as a solution (mixed with a moral commitment) which constitutes the main characteristic of the third floor (Moghaddam 2005, p. 165). The individual is then more likely to develop the perception that violence is acceptable. Moreover, engagement within violent organizations now constitutes an acceptable option for fighting the perceived injustices. If an individual joins this kind of group, he or she will become socialized by other members and his or her convictions will solidify and become more radical (Moghaddam 2005, pp. 165-166). This also helps to strengthen network ties, emotional connections (friendship, honor, fraternity, etc.) and ideological commitment. The fifth and last floor is reached once the individual, often as an active member of such a group, loses his or her "inhibitory mechanisms" and is now ready to move toward a terrorist act. Thus, Moghaddam's staircase model, as the other models presented above, presents the step toward

violent extremism as essentially cognitive and ideological. Let us note that these models are merely a few representative examples allowing us to understand the importance that has been put on the cognitive aspects of radicalization. Even if recent models have given more importance to other aspects, ideological adhesion is often still conceived as a necessary condition for violence.

The behavioral approach

For researchers using the behavioral approach, cognitive radicalization does not constitute a necessary condition for engagement into violent extremism. It is possible to commit an act of political violence without being cognitively radicalized. It is also possible to become radicalized *after* joining a violent political group or perpetrating violent political actions. Hence, some authors reject the idea that individuals committing these types of actions are always fully ideologically radicalized (Guhl, 2018, p. 204). For instance, McCauley and Moskaleiko (2017, p. 211) have indicated that we must consider cognitive radicalization and behavioral radicalization as psychologically distinct phenomena. According to them, it would be a conceptual error to assimilate them in a single process. It is on this idea that their “two-pyramids” model was constructed. This model distinguishes between an “opinion” pyramid (with a relatively large number of individuals at the bottom who do not care about some political cause, followed by a smaller number who are peaceful sympathizers, and so on until we reach the top of the pyramid with an extremely small number of individuals who *believe* that violence is justified) *and* an “action” pyramid (which is constructed, *mutatis mutandis*, following the same principle, going from a large number of inactive individuals to peaceful activists to, ultimately, terrorists) (McCauley and Moskaleiko 2017, pp. 211-212). This model distinguishes cognitive radicalization and behavioral radicalization as two distinct processes that must be studied separately (McCauley and Moskaleiko 2017, pp. 213-214) in order to account for the fact that radical actions may occur in the absence of radical beliefs and vice versa (McCauley and Moskaleiko 2011, pp. 69, 75). It is well documented, for instance, that engagement can emerge from a variety of reasons; at the beginning of the process, individuals can become engaged for “emotional” reasons (friendship, family, grievances, sense of belonging to a group, desires for revenge, and so forth) (see e.g., McCauley and Moskaleiko 2011, pp. 75-76) or for “situational” reasons (promotions, rewards, opportunities for theft, and so forth) (McCauley and Moskaleiko 2011, pp. 68-69, 83-84).

Ideology can therefore not be seen as a condition for violent action; it sometimes occur as an *ex post facto* justification for a violent act (McCauley and Moskalenko 2011, pp. 219-221).

In a similar perspective aiming at dissociating ideological and behavioral processes, Borum suggests that we replace the term radicalization – the developmental process of ideologies and extreme beliefs – by the term ‘action pathways’ to better highlight the singularity of engagement in violent extremism. Studying radicalization from actions would allow us, he argues, to better understand the process of engagement within violent militant movements. If Borum (2017, p. 18) recognizes the importance of ideology, he considers that it does not allow us to explain why some individuals holding radical beliefs do engage into violent extremism whereas others do not. What we do know is that: “Most people who hold radical ideas do not engage in terrorism, and many terrorists [...] are not deeply ideological and may not ‘radicalize’ in any traditional sense.” Cognitive radicalization, then, would only be *one* of the possible paths leading to active engagement in violent extremism (Borum, 2011, p. 8).

John Horgan (2012) similarly highlights that: **1)** not every adherent to radical ideas commits illegal behaviors; **2)** ideas justifying political violence do not always precede violent action; and **3)** the term “radicalization” does not necessarily imply engagement in terrorism. Cognitive radicalization would thus neither constitute a sufficient condition nor even a necessary one to participation in violent movements. The process toward terrorism is characterized by gradual increases in commitment. This commitment is often more psychological than action-oriented (Horgan, 2005, 90). This is why Manni Crone (2016, p. 591), for instance, indicates that it is not the acquisition of a better understanding of those who support violence that matters, but rather a better understanding of those who are actively engaged in the preparation of a terrorist act. For a terrorist to commit a concrete terrorist action, he or she must possess a whole set of knowledge (abilities) that he or she progressively appropriates as his or her own through experience (Crone, 2016, p. 604). It is the acquisition of this set of abilities which should be studied in more details rather than ideological commitment itself according to the behavioral approach.

Opposition to the behavioral approach

Although cases of political violence that are not accompanied by a profound ideological adherence do exist, says Guhl (2018, p. 204), this does not mean that ideas have no impact on behavior or that individuals are not ideologically radicalized in any way. As Malthaner (2017, p. 387)

indicates, the criticism of the cognitive approach to radicalization is merely directed toward those models which would attempt to establish the existence of an exclusive causal link between ideas and violent actions.

In this perspective, Neumann criticizes vehemently those who contest the usefulness of studying the effects of ideology on violent terrorism just because some individuals do not seem to have been cognitively radicalized before acting. He accuses those researchers of attacking a straw man since no serious expert, Neumann (2013, pp. 879-880) indicates, has maintained that there exists a direct, mechanical, and necessary link between cognitive radicalization and behavioral radicalization. But even if cognitive radicalization cannot be considered as the unique or even as a predominant cause, its influence is well documented and could thus not be dismissed on this account. Neumann suggests that we should rather use a more holistic approach to the study of the complex interactions between beliefs and behaviors. It is impossible to separate beliefs from political action even if every “true believer” is not necessarily an ideologue. Social movements organized around a common ideology should thus each be carefully studied: the realm of study of terrorism cannot continue to err by putting in the same basket various groups or individuals from very different contexts simply because they use similar tactics (Neumann, 2013, p. 883).

Attempts at putting all the pieces together

In recent years, new models have emerged with the aim of explaining the interactions between beliefs and behaviors. For instance, there is the Significance Quest Theory. The “quest for significance” (in the double sense of “importance” and “meaning”) carried by individuals is said to be driven by three main sources: 1) catalysts; 2) beliefs; and 3) the peer circle (Kruglanski et al., 2019, p. 42).

The catalyst is defined by a series of needs that contribute to the engagement in “violent extremism.” For instance, Kruglanski et al. (2019, pp. 44-47) have discussed at length the quest for recognition, which is seen as one of the main motivations for militant engagement. It includes the need for accomplishment, meaning, competence, control, and so forth. The authors identify three major pathways. The first is characterized by a loss of “meaning” or a humiliation (deprivation). This can be linked to personal failures or attacks toward a social identity: in short, individuals translate an underlying suffering into a quest. The second pathway is related to anticipations of loss of meaning if an action is not committed, such as respecting a commitment in

order to avoid dishonoring the family. This would apply to many kamikazes, who accept their fate so that their family is not humiliated (Kruglanski et al. 2019, p. 46). The third pathway is linked to favorable circumstances which are expected to bring meaning to the act. This type of quest aims at obtaining benefits from the commitment, such as a place in the history of the group, a status of hero or martyr in the community, and so forth.

Beliefs constitute the second “pillar” of the model. They contribute to a narrative in which the individual's quest for “meaning” takes on a *new* direction. For most individuals, this outcome does not take a violent form. However, for a few, a violent act may become a response to a series of deprivations and humiliations. Since most cultures prohibit violence (especially indiscriminate violence), the individual who engages in it will seek social permission through adherence to an ideology. In a militant group, this ideology is articulated around a narrative that emphasizes the merits and glory of the group (Kruglanski et al., 2019, pp. 48-49). In sum, it can be said that the needs (catalysts) of the individual underlie this quest for personal meaning. The group will help the individual in his or her action and encourage him or her to use violent means to defend the cause (Kruglanski et al., 2019, pp. 54-55).

The last pillar is called the “circle of peers”. The authors underline the importance of networks for engagement in violence. Peers play a fundamental role in ideological adherence and in the individual’s quest for meaning. Fraternity in the group can strengthen one’s commitment and legitimize the perceived struggle. Sometimes the network is directed by a charismatic leader, which also contributes to the solidification of the desire to participate. All these interactions aim at integrating the individual within the group and at providing him or her with a position that helps him or her in feeling useful and important (Kruglanski et al., 2019, pp. 52-53).

In fact, Kruglanski et al. (2019, p. 59) present two different, but interconnected, processes here. There is the acceptance of the violent idea in which the individual passes from a loss of individual significance to a loss of social significance (or the opportunity of gaining significance by the defense of sacred values). Thereafter, there is a commitment that leads to a regaining of significance and ends with the acceptance of violence as a legitimate means. If we focus on the behavior, this process translates into passive support, active support, participation, and, finally, self-sacrifice. Yet, this theory focusses more on the psychological aspect of the violent political

engagement than on socially influenced individual reflections. Moreover, it does not fully account for the few actors who commit acts of political violence without adopting the ideas. The same is true for the process of disengagement and the shifts in membership and behavior.

The ABC model (Attitudes-Behaviors Corrective) is another recent model which seeks to explain the link between ideas and behaviors. The goal of this model is to address the issues pointed out above (Khalil et al., 2019, p. 2). While rejecting the term “radicalization” as polysemic, this model puts forward the concepts of “attitudes” toward ideologically justified violence and “behaviors” related to it. Sympathy or opposition to violence being a matter of degree, there exists a continuum of possible attitudes taken by any individual with respect to violence in the name of an ideology. This continuum can range from extremely opposed to indifferent to extremely sympathetic to a violent cause. Likewise, there exists a wide range of possible actions one can take with respect to supporting a violent ideology. Indeed, actions can range from nothing at all to indirect technical or financial support to direct involvement. Putting both continuums together in a Cartesian upper half-plane (with the horizontal axis being “attitudes” and the vertical axis being “behaviors”), it is then possible to “pinpoint specific individuals” with respect to their own singular combination of attitudes and behaviors, and then “trace their trajectory [...] over time.” (Khalil et al. 2019, p. 4) Indeed, this model makes it easier to describe the dynamic evolution of an individual’s journey toward or away from a specific combination of attitudinal and behavioral violent extremism. It also makes it possible to connect or disconnect attitudes and behaviors depending on the particular instances studied.

This is not possible with the pyramids model as presented by McCauley and Moskalenko. For Khalil et al. (2019, p. 4), the pyramids’ categories “lack precise boundaries.” The ABC model makes it possible to include a large range of actions that indirectly *support* violence such as accomplishing administrative tasks, driving, or cooking for those committing violent actions. It also makes it possible to bring nuances in terms of ideological adherence by conceiving “attitudes” as a continuum. The fluidity of the model thus allows for a consideration of many practices as well as non-violent motivations. It also allows us to take acts of violence that are realized without full adherence to a political ideology into account. Moreover, the model makes it easier to trace changes over time (see the models in the article) (Khalil et al., 2019, p. 6).

To justify or explain why an individual is placed at a particular intersection of the ABC half-plane, the authors chose to adopt an analytical perspective based on RCT (rational choice theory). While acknowledging that RCT does not resonate with all researchers, they argue that an extension of the concept of rationality to “include psychosocial rewards” (Khalil et al., 2019, pp. 12-13) remains useful to understand an individual’s position in the ABC half-plane. For instance, they maintain that even when individuals put the interests of the group ahead of their own, they usually do so as a result of self-interested incentives (Khalil et al. 2019, pp. 10-13; Khalil et al., 2020, p. 3). This illustrates well how the authors favor a broadly conceived notion of self-interest within RCT. But they still have little to say about why some individual incentives are relevant in specific cases but not in others (as they fully recognize, see Khalil et al., 2020, p. 4). This is the result of the fact that RCT itself has not much to say about how and why particular individual incentives are relevant when considering specific cases (for instance, along trajectories). For this reason, the authors mention that they are open to theoretical additions that incorporate a better understanding of these incentives (Khalil et al., 2020, p. 4). This model would benefit from a more systematic understanding of the various reasonings guiding trajectories within the ABC graph. In this perspective, an even broader and more dynamic conception of rationality would help us understanding not only why an individual is located at a particular position in the “attitudes-behaviors” half-plane but also why an individual moves over time from this position to another. We will argue that our model helps to achieve this.

Indeed, we will defend that a comprehensive approach proposing a broader view of rationality would allow to take behaviors, ideas, and emotions into account when studying radicalization processes. This would help to overcome various limitations identified above. Indeed, by broadening our conception of rationality, we can arrive at a similar typology to those presented in the literature, but in which we incorporate the general contextual aspects guiding an actor’s reflection on values and interests which, in the end, can help us understanding the relationship between context, ideas, and actions (or the absence of action). This would allow researchers to account for the variety of backgrounds which is often observed within members of violent groups (see for instance Schuurman & Horgan, 2016, p. 56).

2. Using a general theory of rationality in the study of political violence

We have seen that there are disagreements on whether cognitive radicalization can be studied in the same manner as behavioral radicalization and on whether one is a condition for the other. We indicated that those who consider radicalization as a single phenomenon generally agree with the idea that individuals can follow different routes in their radicalization process. But they argue that those routes remain connected to the same process. Likewise, we will defend the idea that every engagement toward violent extremism can be analyzed in the same general way, even if this engagement can lead to different outcomes. Those different pathways are in fact not mutually exclusive; it is not rare to observe individuals going from one path to another. We therefore agree with Guhl (2018, p. 203) that we must try to understand *how* ideology plays a role in engagement rather than asking ourselves *if* it does. To answer this question, our own model is based on the idea that we must attempt to understand *the reasons* an actor had to believe or act in a particular way. Within this framework, the way to understand specific *manners* by which individual actors hold their beliefs and values or choose their ends and their means is to be investigated by a sociology of rational action.

Our conception of reason, however, is broader than the strictly instrumental view of rationality that is often used in Rational Choice Theory (RCT). It is therefore more inclusive than what we have seen above or than what we can see with other RCT approaches applied to terrorism studies, as popularized for instance by Martha Crenshaw (1981) and by many economists such as Caplan (2006) or Anderton and Carter (2006). Those models either concentrate on group strategies or on individual decision-making processes leading to action or involvement (see the review by Schuurman & Horgan 2016, pp. 57-58). In either case, these variants of RCT all stem from the basic idea that actions are rational and that they are accomplished to obtain some more-or-less strictly defined net gain. Their understanding of rationality is *instrumental*; the thought process guiding every violent act is based on how this can bring some benefit to the individual or group committing it. These models are, as a result, constructed as an assemblage of strategic actions (or “games”). Crenshaw (1981, p. 385) indicates, for instance, that: “Terrorism is seen collectively as a logical means to advance desired ends. The terrorist organization engages in decision-making calculations that an analyst can approximate.” In other words, a terrorist acts to further the group’s interest which he or she makes his or her own, with some structural encouragements from the group (Crenshaw 1981, pp. 393-394); a violent act is the result of a thought process based on the

desire to advance this interest. Caplan (2006, p. 94) correctly adds that terrorists are rational in the sense that they respond to incentives, i.e., they commit terrorist acts because they *work* (the purpose of “terrorizing” is achieved by the violent means used). But he also indicates that rationality seen as a narrow form of self-interested reflections is unlikely to apply to most terrorists who willingly commit suicide attacks (Caplan 2006, p. 96). The latter are thus seen as “irrational” by Caplan.

Although we agree that any action involves thought processes and that terrorists respond to incentives, we would argue that their reflection is not always based on the notion of interest and, even when it is, their reasoning is rarely *only* about interest. We would also argue that, although the consideration of responsiveness to incentives is important to generally structure our analysis of violent acts, this provides us with knowledge that is far too broad to be very useful in the elucidation of specific empirical cases. Even if it is true, as Caplan indicates, that the fact that very few people end up committing terrorist acts is indicative that most people follow their narrow self-interest, this does not bring any light to the real phenomenon of violent behavior committed in the name of a violent ideology.

In light of this, we argue that rationality must be broadened in two ways. First, self-interest must be conceived in a more subjective manner than what we usually find in rational choice theory. In this respect, Wiktorowicz (2005, p. 27) is correct to argue that interest is not static and can be reconstructed by the individual over time based on his or her experiences. This recognition is certainly a step in the correct direction, as it enlarges the conception of rationality to include phenomena that previously remained unexplained or pathologized. Nevertheless, this conception of rationality is still limited, as it does not incorporate very well values and cognition in the determination of the specific goals that the actors pursue. True enough, we can consider adherence to values as the pursuit of “spiritual” self-interest (Wiktorowicz 2005, pp. 28-29), but even this conception assumes that it is mostly to “gain” in the afterlife that the actors act as they do. This fails to provide a complete picture of the situation, as we can conceive of this not being the case in some situations or, at least, as we can conceive of this not being *the only reason* why the act was committed. It also does not explain why an individual ends up *believing* that his or her spiritual self-interest is such that they must commit such an act (we do not find it useful to accept Caplan’s claim that such beliefs are simply irrational, for this does not help explaining their emergence,

which is in itself an intriguing phenomenon for the social sciences, see Caplan 2006, p. 101). This leads us to the second way by which our conception of rationality must be enlarged: it must be reconceived in order to include reflection based on strict cognition and values. It is for this reason that we seek to apply Raymond Boudon's conception of rationality to the field of radicalization studies.

In the following, then, we will provide a typology of radicalization, as influenced by Boudon's general theory of rationality (see Robitaille 2020). The reason why Boudon's theoretical remarks are useful here is that he delineates a conception of rationality which is elastic enough to help researchers understand why actors ended up holding a particular belief or committing a particular action. Boudon indeed refines and expands the scope of Max Weber's typology of social action and applies it to the study of various social phenomena (Boudon & Viale, 2000; Boudon, 2012). His action theory is based on the idea that any social phenomenon is the product of actions, decisions, attitudes, behaviors, and beliefs. Those are all the result of reasons that are more or less clearly perceived by the actors (Boudon, 2003). To contrast Boudon's understanding of rationality with RCT, we must consider the fact that actors do not only act to obtain some net benefit. Actors also consider some actions as their *duty*. Their conception of what their duty should be is socially influenced but is nevertheless based on a reflection by the individual actors on what their values are. Many adepts of RCT consider actions that are not self-interested as "irrational" because they believe that any reflection must be oriented toward the actors' *interest*. But of course, if we take as an exogenous presupposition that every action must be self-interested, then every action that appears not to conform to the analyst's understanding of self-interest will be considered "irrational." However, and this is precisely Boudon (2001, pp. 58-60)'s point, the analyst's assumptions about the actors' interests and goals are sometimes incorrect (Boudon 1986, p. 50). Goals are indeed chosen for various reasons, some of which are not related to self-interest. This does not mean that no reflection process is involved; it simply means that the assumption that every reflection guiding action must be oriented toward the achievement of a self-interested goal is too strong.

In particular, then, it is often unrealistic to assume that interest is the main motive for either cognitive *or* behavioral radicalization. One needs to put the individual in his or her social context to see whether and to what extent values, cognition, or interest played a part in the phenomenon

one seeks to elucidate. Once we gather information on the actor's social context and life course, we can better understand how their values formed and, subsequently, the reasons for their seemingly irrational actions. In brief, actors believe in what they believe or act as they do because they have *good reasons* to do so from their socially and cognitively influenced perspective (Boudon, 2004, 281). Boudon (2001, 67) mentions that "[...] social actors should be considered as rational in the sense that they have strong reasons for believing what they believe, for doing what they do, etc." In this perspective, Boudon (2001, 62) thought that RCT models were often useful to understand social phenomena; they are good at providing us with explanations when actions are the result of some cost-benefit analysis. However: "If the instrumentality of action is indeed limited, then RCT cannot claim to be a general theory of action." (Boudon 1998, p. 818). And it is indeed difficult to explain every action in terms of instrumental rationality, thus suggesting that RCT is *not*, ultimately, a *general* theory of action. RCT must be extended to obtain a truly general theory of action. We must, in this perspective, conceive of rationality as not merely playing a role in the choice of means toward the satisfaction of exogenous ends (as RCT often does). The choice of ends itself may be based on non-instrumental reasonings. We do not only choose ends because they are in our interest; we often choose them because they are conforming to our values. And this explains why Boudon indicates that social scientists should also focus their attention on *axiological rationality*, i.e., the reasons to act or think that are linked to an individual's conception of morality and justice.

Moreover, in the choice of means, one must at least reflect on the truth of causal links between ends and means (I generally need to have good reasons to believe that my means will indeed contribute to achieve my goal and bring me higher benefits than costs) and on whether choosing one means rather than another is more consistent with what I believe to be moral (which is an axiological-rational thought process). In the choice of ends, a combination between three general types of rationality can also interact. I can choose an end because I believe it will bring me great satisfaction (instrumental-rational) or because I believe this end to be *moral* (axiological-rational). And, of course, instrumental and moral theories that individuals adhere to are also based on statements of fact believed to be correct (cognitive-rational). Boudon (2001, p. 65) mentions: "Cognitive rationality should be distinguished from instrumental rationality. First, because endorsing a theory is a non-instrumental action; second, because the question the actor is confronted with here is not to maximize any cost-benefit balance, but to check whether, to the best

of his knowledge, an idea is acceptable.” Hence, to Boudon, explaining any human action (whether by revealing the mechanisms behind the “ends” *or* behind the “means” part of the “means-ends” relationship) requires that we consider that choices of means and ends are based on the interaction of various types of socially-influenced reflection processes. Reflection can be purely about the truth of propositions (cognitive rationality), about the coherence between a goal or a means with fundamental values (axiological rationality) or about the coherence between a goal or a means with the actor’s subjective conception of his or her own interest (instrumental rationality).

This theory helps us to avoid several sociological mistakes on the meaning of action, including acts linked to violent extremism. The first mistake is to neglect to consider the gradual dimension of ideas (Bronner, 2003, pp. 59-65). Individual beliefs are indeed the product of a story; in this sense, they result from an often slow and progressive construction (Bronner, 2006, p. 34). The problem is that ideology is too often understood as a stable and coherent assemblage of values, beliefs, and goals (Guhl, 2018, p. 203). But it is not always possible for those who adhere to a belief to fully realize that they are engaging in a process of adhesion (Testot, 2014, p. 203). This is why it is important to discover the reasons why an individual progressively or abruptly moved from one point to another in the ABC model discussed above. Indeed, once these reasons are clear, it becomes easier to understand radicalization processes (or deradicalization processes). As Bronner (2003, p. 60) mentions, following Boudon, it is through this understanding of the gradual process of ideological adhesion that researchers can make sense of the nature and magnitude of the belief in the mind of the believer at a particular point in time. The second mistake, which was also identified by Bronner (2003, pp. 45-47), is to consider that we either *strictly* believe in an ideology or *not at all*. But, as we have seen from the ABC model discussed above, the process of adherence can lead an individual to develop a variety of attitudes toward a violent ideology; indeed, one can develop any attitude in-between strong opposition and strong sympathy. Once again, it is by paying more attention to the actor’s reasons to believe or act that researchers will become able to understand if there is a relation between adhesion and behavior for a particular individual or if they must look at other factors that might have played a role in shaping the belief or the behavior for this particular individual. The third mistake is to consider that a believer necessarily accepts every proposition of the ideology he or she adheres to. But each belief is composed of a series of propositions, each one of which can be evaluated independently by the individual. This means that, to understand a particular cognitive radicalization process, we must take a closer look at the actor’s

life course and his or her thoughts on the propositions that are accepted as true or rejected as false. Only once researchers obtain a relatively clear picture of the actor's subjective considerations on these propositions can we then start to understand how and why the radicalization process occurred. The last mistake is to forget that every belief does not have the same weight in an individual's mind. Sometimes, an individual can act in a way that seems contradictory to his or her own beliefs only to be consistent with a higher value or belief (Bronner, 2012, p. 152). As will be seen in the next section, avoiding this mistake allows us to see more clearly how the complexity of the various competing values and thoughts ends up determining in the actors' mind whether they are willing to act violently or not and whether they will be ideologically radicalized or not.

We think that research should therefore focus more on this journey punctuated by doubts, certainties, and questions, since belief is not necessarily a fixed object for the believer (Sauvayre, 2011, p. 100). In this perspective, emotion, experience, friendship, and opportunities are important to understand the individual reasons behind various parts of the radicalization process. Using Boudon's large conception of rationality will allow us to point out to what exactly in the individual's social context and thought processes should be investigated by researchers for each type of our typology in order to reconstruct the reasons that led an individual to act violently (or not, and to what degree) and to commit to an ideology (or not, and to what degree).

3. A typology analyzed through the vector of reasons to believe and act

With this in mind, we have constructed a typology of radicalized individuals and we explain below how each type has general *reasons* to believe (or not) in violent radical ideas and to act (or not) violently. This is useful for two reasons: first, it provides general guidelines as to what in the actors' social context must be investigated for each type and, second, it helps to see the differentiated impact of ideas on each type (and how various ideas compete to determine the choice of behavior). We also briefly indicate how the description of each type can provide insights for empirical research.

We develop four broad types of individuals. It follows the same criteria as Williams' (2019, pp. 101-102) [*Table 1*]), according to which an individual can adhere to violent ideas or not and can be willing to commit violent actions or not. Let us keep in mind that an individual can go from one type to another at any time, based on his or her contextualized reasoning and that, as Khalil et al. (2019, p. 5) mention, there are various degrees of adhesion or of violent behavior within each type.

Let us now consider each type one by one and attempt to understand their characteristics. To do such a thing, we will investigate the *reasons* individuals of each type have to think or act the way they do, depending on their social context, using Boudon's general theory of rationality. We thus analyze the "radicalized warrior" (who is both cognitively and behaviorally radicalized), the "radicalized thinker" (who is cognitively but not behaviorally radicalized), and the "skeptical fighter" (who is behaviorally radicalized but not cognitively radicalized). Since attempting to explain the last "neither cognitively nor behaviorally radicalized" type does not advance our argument (they represent ordinary individuals in most societies), we will focus instead on the other three types.

The radicalized warrior

The first type of radicalized individuals can be named "the radicalized warrior." The term "warrior" captures quite well the kind of respect surrounding such individuals by their fellow group members. This type of individuals completely adheres to a radical ideology (or does to a large extent) and is ready to act upon it. He or she is ready to take the risks associated to his or her action because he or she sees the action as ideologically justified and values these ideological goals above almost anything else, sometimes including his or her own life or freedom.

Given their social environment and their position within it, individuals corresponding to this type have good reasons to believe that the violent ideology is *correct* (cognitive reasons) in both its evaluation of the (unsatisfactory) state of affairs prevailing within society and on the manner by which it proposes to change it. The state of affairs that needs to change could be linked to perceived social segregation, racism, and other perceived injustices that the warrior morally believes must change (Crettiez, 2016, p. 714). Warriors thus see the goal of the radical group they join (either officially or independently) as a *just* goal (they have axiological reasons to adhere). This combination between cognitive and axiological rationality puts this type of individuals in the category of the *true believers*. Indeed, the warrior believes both in the justice of the ideological goals pursued by the radical group and in the effectiveness of the violent actions to attain these goals. The reasons why the goal is considered just and the reasons why the violent means is deemed effective must be found in the social environment and personal history of the individual thus classified.

Let us now consider the reasons to *act*. Of course, the most obvious reason to act is instrumentally linked to the fact the action is perceived as contributing to the achievement of a goal deemed as *just* by the actor. The social cost of performing violent actions explains why they are relatively rare. And since some individuals believe while not acting and others act without truly believing, then there must be other reasons than only the instrumental one (linking the means to the goal) explaining why the radicalized warrior acts on his or her beliefs. One of these reasons must be linked to the rank at which the actor puts this goal in his or her value scale as compared to his or her other goals. It must indeed be placed very high, since the potential costs related to the violent action are generally considered quite high by most people (risks of losing a job, jail time, or even death).

This can mean various things, depending on the actor's social context: 1) it is quite possible that this individual identifies his life purpose as achieving the goal sought through violent action (the perceived benefits of the actions surpass the perceived costs, however high they may seem to most of us); 2) it is also possible that this individual already does not have much to lose (low valuation of one's life and of other perceived costs of acting); 3) last, it is also possible that the actor overestimates the likelihood of reaching the goal (for instance, by believing that they will succeed in overthrowing the ruling class through their action) or underestimates the likelihood of having to pay the costs linked to it (for example, by believing that they will not get caught). For instance, many individuals engaged in political violence once ISIS declared its caliphate. This is not linked to a change of beliefs, but to the real chance of achieving their goal (Guhl, 2018, p. 206).

Insights for empirical research: When empirical evidence shows that individuals can be classified as radicalized warriors, we must seek in their social environment and life course what conditions made them believe that the ideological goal they adhere to is linked to a *correct* assessment of the current state of affairs, a *correct* identification of the solution (cognitive reasons for believing in the truth of the ideology), and a *just* solution (axiological reasons for adhering to the goals set by the ideology). We must also attempt to find in it how they acquired the abilities to perform the action. In other words, we are seeking the elements surrounding the actor's position in social life that have affected his or her thought and valuation processes in such a way that he or she became cognitively radicalized. We must also take a look at the reasons leading such individuals to believe that the violent action will help reach the desired goal. Moreover, empirical research must look at

the individuals' valuation process: what makes them value the attempt to realize the ideological goal through action *more* than the perceived unpleasant consequences of the action? It is important, however, that, by reconstructing the action and thought processes, we keep in mind that these factors are not necessarily strictly *causal*; an individual's position in a social environment combined with his or her own temperament and life course is singular and does not allow for universalization. But those factors do bring us some information about the thought processes and actions of the radicalized warrior in such a way that we can rationally reconstruct them for the sake of understanding the process that led the warrior to think what he thought and to act as he did.

To take an empirical example, Schuurman and Horgan (2016, p. 60) indicate that the murderer of a Dutch filmmaker, member of the Hofstadgroup, "adopted an increasingly extremist interpretation of Islam that led him to view the murder of blasphemers as a personal duty, culminating in his decision to kill Van Gogh for directing a controversial Islam-critical film". This life trajectory gave him the necessary cognitive and axiological reasons to believe in the group's assessment of an immoral situation and in the justice of violent actions to show that immorality does not go unpunished. In his case, the cost of his action was lowered by the fact that "Through his own volition, he quit his work at a community center, abandoned his studies, and left his family's home to live by himself." Although there are very few individuals – even within radical groups – that will truly become warriors, understanding the reasons they had to believe *and* act is key, as the consequences of their actions are precisely what makes radical groups appear dangerous to the general public and authorities. Moreover, the warrior's violent action often becomes an inspiration for others to act similarly. For instance, Schuurman and Horgan (2016, pp. 58-59) have indicated that, in this particular case, the murderer has influenced at least one other interviewee from the Hofstadgroup who considered imitating him before getting arrested. It is therefore useful to attempt to identify the reasons that can lead an individual to become a warrior using the insights provided above.

The radicalized thinker

The second type of radicalized individual can be named "the radicalized thinker." Here, the term "thinker" simply refers to the fact that the violent ideology is justified in the actor's own mind. This type of individual completely adheres to a violent political ideology (or adheres to a large extent) but is not ready to act upon it. The thinker is not ready to take the risks associated with

radical action because, although such actions are seen as completely justified, there exist competing reasons not to act. The reasons to adhere are mostly the same as those of the radicalized warrior. Once again, the actor's social environment and position within it provide to such an individual good reasons to believe that a violent ideology is *correct* in its evaluation of the present situation and on the manner to change it. The ideological goal is also seen as just.

As for the absence of action, there are two possibilities: 1) the radicalized thinker has various competing ends which are valued more highly than the realization of the violent goals (for instance, he or she values more his or her life, job, family, freedom, and so forth); or 2) he or she could very well have *cognitive* reasons not to act (for instance, he or she might think that his or her action alone will not change anything for the moment). One must keep in mind that non-violent actions may still be performed based on ideological adherence (Crettiez, 2016, p. 710). Some supporters of jihad can, for instance, have avoidance behavior toward women, give money to violent groups, provide logistical help, or teach. They simply do not act *violently*.

In contrast to radicalized warriors, radicalized thinkers see themselves *or* the ideological goal as better served by abstaining from acting violently. One can see, for instance, thinkers refusing to act on their beliefs because they believe that the freedom to express their views will help the cause *more* than a single act of violence. Some radicalized thinkers also support violent political groups with money, propaganda, teaching, online discussions, etc. Nevertheless, thinkers believe that committing violent actions themselves is a bad means to achieve the end they seek to achieve. In brief, they either believe that the cost of performing a violent action outweighs the perceived benefits (they rank the achievement of the violent goal *lower* in their value scale than other goals which cannot be achieved if they commit a violent action) or that they can help achieve the violent goal better through non-violent means (such as with propagandizing, recruiting, and so forth). Depending on the social context (which must be evaluated empirically), their desire to realize the violent goal cannot necessarily be seen as weaker than that of the radicalized warriors. Indeed, the motivation to realize the violent goal can be just as strong, but there is either a different thought process involved or a perception of having a different role to play in the division of labor with respect to the means to realize it.

Insights for empirical research: Empirical research must try to find in the radicalized thinkers' environment what makes them *abstain* from acting. Is it that the thinkers see their function in the

radicalized movement as *different* from that of other members in order to achieve the final goal? Or do they simply have competing personal values and goals which are ranked higher in their mind than the violent goal (and which would be unlikely achieved were they to commit violent actions)? For instance, one may truly believe that a whole group of people must be put to death for our nation to prosper but nevertheless refrain from acting because one values more highly staying out of jail and spending time with one's family or keeping one's job than reaching this goal. Or one may also think that one can better help reaching the violent goal by popularizing ideas, recruiting, planning, and so forth than by acting directly.

Since the costs of acting violently are often very high, most individuals having sympathy for the violent goal will remain radical thinkers and never act on this sympathy (see for instance Khalil 2014). Some may also believe in the goal of the organization without endorsing violence. A similar inquiry of these individuals' social context can be conducted to understand how their views diverge from those who believe that violence is justified.

To take an empirical example, Tarek Mehanna is an American who has been convicted in 2012 for conspiracy¹. In particular, he was accused of providing material support to a terrorist organisation. In fact, according to the FBI (2012), Mehanna tried to obtain terrorist training while traveling abroad in 2004. Thereafter, he dedicated himself to the translation of violent online material and to the provision of material support for violent groups in the Middle East. Before going to jail, Mehanna (2012) explained his motives to the court. He mentioned that, given the choice between collaborating with the government as an informant or going through a trial, he chose the latter, thus revealing the extent of his ideological commitment (see Gould 2019, pp. 151-152). Mehanna explained that it is through his learning of the many struggles between oppressed groups and oppressors in American history that made him realize how analogously unfair the wars conducted by the United States in the Middle East were. It is in particular Malcolm X's story that "led [him] to look deeper into Islam" (Mehanna, 2012), where he found answers to many of his metaphysical questions. After becoming aware of the unfair treatment reserved to Muslims around the World, he then came to the conclusion that the actions committed by American soldiers were analogous to those committed by the British soldiers during the American Revolution. It is thus clear that the reasons for adhering to violent ideas were primarily axiological for Mehanna; his

¹ We would like to thank an anonymous reviewer for this specific suggestion.

interpretation of the facts is such that, in his mind, violence becomes justified as a defense against oppressors. In other words, in Mehanna's mind, violence is fully justified because American soldiers are unfairly treating a group; it is the principle that the oppressed should have the right to fight against the oppressor that led Mehanna to believe violence is justified here. We have little information about why he refrained from direct violent action. But the fact that his activism mainly consisted of translations tends to indicate that he thought he would better serve the cause by promoting it to a wider audience. It is also possible that he thought doing so was exposing him to lower levels of risk. But determining this with certainty would require further investigation into his life course.

The skeptical fighter

Another type of individual involved in radical groups can be named "the skeptical fighter." One can see the skeptical fighter as acting violently in the name of an ideological movement as a means to an end which is *not linked* to the violent ideological goal itself. The violent political ideology is thus considered as either unfounded or irrelevant. The violent action comes *in spite of* this fact. The skeptical fighters evaluate that acting in the name of a violent idea is the best way to achieve their own (other) goals, including to protect themselves or their loved ones from harm.

The skeptical fighters either do not think at all (or very little) about the correctness of the ideological movement they join, or they do think about it but remain unconvinced (perhaps even opposed). They have other reasons to join. It could be to find a sense of belonging, to make friends, to join a loved one, to find an excuse to indulge in criminal behaviors, to be seen as a hero by a group, to obtain some reward, and so forth. It is not impossible, however, that skeptical fighters will end up adhering to the ideology after performing violent actions. But the reasons to perform a violent act are all instrumental here; skeptical fighters do not join some ideological group because they think the cause is a *just* one, nor do they necessarily agree with the assessment of the current state of affairs and with the solution proposed to change it by the group. This, however, does not imply that the skeptical fighters do not have cognitive and axiological reasons leading them to act violently; it simply means that they are different from those of the violent group.

Similarly to the radicalized warriors, the skeptical fighters will act because they value more committing the violent action than abstaining from committing it. The difference, however, lies precisely on what exactly is valued. The radicalized warriors, as we have seen, act because they

genuinely believe that their action contributes to achieve a *just* goal. The skeptical fighters, in contrast, act in the same manner because they value other things which they believe this action will bring about. The ideological justification is either: 1) merely a pretext to commit this action, or 2) something which the fighters despise, dislike, or are indifferent to but which they are willing to overlook to achieve some other goal (such as pleasing friends, proving their love, getting paid, or being allowed to join other activities within the group). In any case, a broad instrumental reasoning that applies to them with certainty is that they value *some* goal which they link to the performance of a violent action more than any other goal (including the goal of avoiding all the consequences they can link to the performance of that action) at the time they commit it.

One special case of skeptical fighters are those individuals who are coerced into acting violently under various threats from other members of the group. Children soldiers are the best example of this type of violent political engagement. Their *instrumental* reason to act is fear for their lives or for that of their loved ones.

Insights for empirical research: The most obvious thing to look for in empirical analyses aiming at classifying individuals as skeptical fighters is instrumental reasons (such as monetary and social gains or desires to avoid harm or ostracism from members of the group). But one must keep in mind that it is not because the skeptical fighter does not consider the goal of the violent action as just that there is no moral concern in his or her decision to act. For instance, it might be because of values linked to love, friendship, or duty that he or she ends up choosing to commit a violent act in spite of not believing in the validity of the ideological justification provided by the group. It might also be for economic reasons.

To take an empirical example, journalist David Thomson (2016, pp. 113-115) shows from his interviews that many jihadists flew to the Middle East in the hope to find women (for marriage or in the afterlife). Indeed, some former male jihadists who left France to join ISIL in Syria mention that participating in jihad contributed to make them more attractive to women. This is a clear case in which instrumental rationality plays a role in determining what goals to be pursued. The desire for love or sex is what primarily guides the actions of these fighters (rather than the group's ideological goal itself). Another plausible empirical example illustrating this type can be found in the story of the youngest of the brothers responsible for the Boston Marathon attack, Jahar

(Dzhokhar) Tsarnaev². Indeed, Jahar's story does not indicate that he had much interest for the radical cause justifying his violent action before his brother became committed to the cause himself (Picart, 2019, p. 52). In a news report entirely dedicated to his story, it is indicated that he "idolized his older brother" (Reitman 2013 p. 7). It is only after his brother increasingly discussed the prospects for a "holy war" that Jahar started to become more seriously committed to religion and politics (Reitman 2013, pp. 21-23). It is thus possible to speculate that obtaining his brother's love or respect has played a role in Jahar's own commitment to act violently.

Other studies have shown that there are many non-strictly ideological reasons that can lead individuals to join a radical group in the prospect of acting violently, thus making it possible to classify them as skeptical fighters in our typology. For instance, a study conducted with 88 former fighters in Somalia identifies a diversity of non-ideological reasons that played a role in the decision to join a violent organization. Indeed, according to Botha & Abdile (2014, p. 5), economic reasons such as getting paid or obtaining a free cellphone is often what led individuals to join the group al-Shabaab in Somalia. Even though many participants indicated that both economic and religious reasons were important to join, there remains a large portion (27%) of the interviewees who indicated that economic reasons were the *only* ones relevant, thus suggesting that they can be classified as skeptical fighters (they did not join the group or committed violent actions because of ideological commitment but for instrumental reasons linked to economic goals)³. One can also note that 13% indicated that they were "forced" to join, 7% indicated that they joined for "personal" reasons and 1% for the "adventure". Again, this indicates that there is a large proportion of these members who were skeptical of the group's ideological goals even though they contributed to their achievement. In this perspective, Botha and Abdile (2014, p. 7) rightly indicate that many participants "thought that al-Shabaab membership would become a career, which casts doubt on their ideological commitment to the organisation's aims." However, the reasons for staying in the organization were mainly linked to a sense of belonging and responsibility that is developed over time (Botha and Abdile 2014, p. 12), which is often accompanied by an increasing ideological commitment. This indicates that one might start one's commitment as a skeptical fighter and then become a radicalized warrior once one feels connected to one's fellow members and once one had the time to incorporate and justify the group's ideological goals. Researchers

² We would like to thank an anonymous reviewer for this specific suggestion.

³ This was also noted in Neumann (2015, p. 9) for the case of the Islamic State's recruitment.

must therefore remain conscious of the possible transitions within this typology (as well as the degree to which they correspond to various types over time).

Significance of this typology

Of course, the previous typology should not be seen as rigid categories: there may be transitions from one type to another when circumstances change. We need to remember that the types are presented as the endpoint of a process of radicalization. The debate at the beginning of this article was about the place of ideology in that process. Now, the answer seems clearer. As Guhl indicated before us, ideology is always present in one form or another, but is not necessarily causally linked to the violent action. Therefore, researchers should not misinterpret the lack of adherence to violent political ideology with the absence of any social ideology guiding thought and action. Indeed, even the skeptical fighter who does not really believe in the justice of the goal presented to him by an ideological group will act on behalf of it for other reasons.

It is certainly true, as Ducol mentioned, that beliefs, whether political or not, are at the center of decision-making since they are ultimately what orients human action. But this does not imply that beliefs affect every individual in the same way. It also does not imply that *different* beliefs necessarily lead to different actions. This is what our typology has insisted on: the very same belief leads the “warrior” to act, but not the “thinker” and different beliefs lead the “warrior” and the “skeptical fighter” to commit the same action. We may also learn that a violent political ideology appeared at a particular step of the process. If some adhere to a violent political ideology before joining a group, others develop a political view with the experience of engagement or even after committing violent political actions. For instance, we have mentioned that it sometimes occurs that the skeptical fighters, after committing a violent action, will start to adhere to its ideological justification and become radicalized warriors. Ideology, in this case, gives the individual a good reason for why he or she acted in such a way, which helps to reduce cognitive dissonance (Williams, 2019, p. 100).

These transitions from one type to another must, once again, be empirically evaluated to understand the process toward radicalization. The point is that we cannot theoretically delineate all the possible paths leading to violent action. Violent political ideology is not the only important factor toward extremism. For all types discussed, socialization is important to decrease the social cost of engagement. Increases in self-esteem, peer recognition, feelings of moral superiority,

access to resources (Crettiez, 2016, p. 726), fraternity, respect, heroism, hopes of change (Coolsaett, 2006), frustration, search for social and political status (Bronner, 2009, pp. 227-230), humiliation, victimization (Khosrokhavar, 2014, p. 3) are all factors that decrease the cost of engagement. Ideally, researchers should attempt to use the life course approach to identify the various social positions which could provide the “good reasons” to believe and act. Our typology can orient empirical research on what types of reasons one should attempt to discover. Researchers need to reconstruct the history of those individuals to understand why a defined phenomenon happened (Bronner, 2009, p. 186). This is why Bronner (2009, pp. 175, 222) mentions that beliefs do “not impose themselves but offer themselves to the social actor.” Specific reasons are often unique to each individual and radicalization is thus not a mechanical process.

Conclusion

The debate between cognitive and behavioral radicalization seems to stand on two logical fallacies. The first fallacy is to consider violent political ideology as an early condition for joining an extremist group. Many of the most popular models in the literature indeed place ideological adherence at the beginning of the process. The second is to imply a connection between ideas and actions without considering the empirical context. This context includes militant experience (knowledge, abilities), the connection with other members (socialization and networking), obligations (status, peer pressure, commitment), etc.

Because of these aspects, the debate between cognitive and behavioral radicalization remained fruitless. The relation between actions and ideas is not mechanical. Furthermore, the explanatory factors of the multiple endpoints (types) are not mutually exclusive. It is possible to identify many cases of transitions between those types. In this way, it seems irrelevant to distinguish between cognitive and behavioral radicalization as two independent phenomena. It is preferable to study the process of radicalization as one phenomenon that leads to multiple endpoints. For that, we proposed a comprehensive sociological approach that focuses on the *good reasons* of the actors. To demonstrate the potential application for further research, we have developed a broad typology inspired by both the literature discussed and Raymond Boudon’s sociology of action. In other words, our rationalist typology has made clearer what links between ideas and behaviors must be investigated for each logical type derived. We have mentioned above the many advantages of the ABC model. Our model can be used to explain the various trajectories that the ABC model

discussed above describes. Indeed, by concentrating our analysis on the various (instrumental, axiological, and cognitive) reasons the actors have to become a warrior, a skeptical fighter or a thinker, or the reasons to go from one type to another over time, we provide the proper framework to arrive at an understanding of specific empirical trajectories.

We believe that empirical research using our typology will help to illustrate and clarify its usefulness. This is why we have provided insights for empirical studies and why we included some empirical examples in our discussion of the typology.

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