# Deradicalization through Double-Loop Learning? How the Egyptian Gamaa Islamiya Renounced Violence

Carolin Goerzig

Published online: 22 Oct 2019.

Submit your article to this journal ⬚

Article views: 721

View related articles ⬚

View Crossmark data ⬚

Routledge
Taylor & Francis Group

# Deradicalization through Double-Loop Learning? How the Egyptian Gamaa Islamiya Renounced Violence

Carolin Goerzig

Max Planck Research Group "How 'Terrorists' Learn", Max Planck Institute for Social Anthropology, Halle, Germany

**ABSTRACT**

The transformation of the Gamaa Islamiya can be understood by analyzing it against Argyris and Schön's double-loop learning model. This paper bases the analysis on five books published by the Gamaa Islamiya, which include comprehensive elaborations on internal reflections and criticism of Al-Qaeda. While the Gamaa Islamiya's learning can be framed with the model of double-loop learning, Al-Qaeda's reactions can be depicted as a less evolved single-loop learning system. This case is relevant for the discovery of key mechanisms of deradicalization that could be used as a blueprint for other groups.

The debate over the innovative versus noninnovative nature of terrorist groups gathered speed after 9/11. As a result, the focus of the discussion has shifted to the conditions for terrorist learning and to the different kinds of terrorist learning. When consulting this literature on the transformation processes of terrorist groups through an organizational learning lens, a rough distinction between behavioral and cognitive approaches can be drawn.[1] According to behavioral approaches, learning is a result of automatic reactions to performance feedback.[2] While rewards and successes make corresponding actions more likely to occur, punishment and failure have the opposite effect.[3] That means that the influence of the environment is central. Many studies on terrorist learning employ an instrumental understanding of terrorists' evolution by concentrating on tactical development, focusing on the introduction of new weapons and tactics, and on terrorist groups' reactions to hostile environments. These studies exemplify the analysis of automatic reactions to performance feedback. This paper starts from the assumption that it is equally important, if not even more so, to study learning processes that are directed at more profound transformations of the fundamental approaches, aims, and principles of groups.[4] In this paper, the author therefore seeks to apply a well-established theoretical concept developed outside the context of political violence, namely the organizational learning approach developed by Argyris and Schön,[5] which has been described as a "core concept in organizational learning."[6] It integrates both cognition and action as parts of the learning process and is explicitly focused on forms

of deeper or higher-level learning that underlie strategic adjustments and fundamental changes.[7] Such a transformation is called "double-loop learning," which "occurs when error is detected and corrected in ways that involve the modification of an organization's underlying norms, policies, and objectives."[8] The question the author wants to shed light on using this approach is whether and in which ways terrorist groups are able to question not only their immediate modus operandi, but also the fundamental assumptions that their struggle is built on.

Using this type of cognitive approach has certain advantages and disadvantages compared to other approaches. Among the disadvantages is the fact that getting beyond the behavioral approach and problematizing cognition would be conditional on having access to terrorist organizations or to primary data, which would doubtless prove both difficult and dangerous. Furthermore, cognitive approaches also have weaknesses when it comes to explaining why learners sometimes improve despite misunderstanding their environments. Some scholars go further and question terrorist groups' capability for cognitive learning. Mohammed Hafez, for example, explains the self-defeating behavior of "fratricidal jihadists" as resulting from cognitive flaws. Fratricidal jihadists frame conflicts along Manichean lines, revealing ideologies that sacrifice political realism and generating a permissive moral code as regards targeting their own comrades. Hafez concludes that instead of engaging such groups in an ideological counter-narrative, enemy errors should be capitalized upon.[9]

However, if terrorist groups are incapable of cognitive learning, how do we explain the fact that they sometimes act in novel, innovative ways? Among the advantages of a cognitive approach is its ability to explain learning that leads to the modification of cognitive maps which influence action:[10] "Cognitive learning incorporates perception, analysis and choice. Learners' mental processes integrate and interpret perceptions, analyze situations, and propose alternative behaviors."[11] Therewith, cognitive approaches can demonstrate why individuals and organizations act in novel ways.[12] These novel ways do not necessarily, however, imply moderation on the part of terrorist groups. Learning that comes along with correcting misconceptions can go in the direction of both radicalization and deradicalization.

Applying the double-loop learning concept also yields advantages over approaches to transformations of jihadist groups that establish rigid dichotomies of changes in means and ends. The literature on deradicalization differentiates between disengagement as a behavioral change and deradicalization that implies a cognitive shift, a change in values or ideas.[13] Thus, scholars assert that studies of deradicalization should be concerned with "motivations underlying behavioral shifts and assessing the extent to which these are merely strategic or indeed permanent rejections of previous ideological positions."[14] Frequently, it is then questioned by scholars how genuine transformations really are. The double-loop learning approach helps to grasp change beyond dichotomizing categories of ends and means, and opens the possibility that it is in fact pragmatism itself that can be the result of a deep learning process. When groups that previously held extremist views start to argue pragmatically, this can equal a profound turnaround. As this paper will reveal, double-loop learning helps to understand how organizations inquire into the relation between ends and means and potentially change that relation. Problematizing the relationship between ends and means rather than asking for an either-or change paints a more nuanced picture of jihadist learning.

Although adopting a cognitive approach thus has several advantages, the literature on terrorist learning is largely focused on tactical learning. Furthermore, studies in the field often suffer from the fact that their central concept is generally undertheorized in favor of case descriptions or typological contributions and that they fail to rigorously link back to the extensive literature on learning developed in other fields. In contrast, this paper seeks to apply a well-established theoretical concept developed outside the context of political violence to the analysis of the transformation of a terrorist group that emerged in Egypt in the 1970s: the Gamaa Islamiya (Gamaa). In 1997, the Gamaa Islamiya declared the unconditional termination of all violence against the state. Following several years of ideological revisions, the organization came to the conclusion that their campaign of violence – which had lasted for more than 20 years – was based on an incorrect interpretation of religious texts. Although the group rejected any notion of surrendering to the government, they did admit that mistakes had been made. The Gamaa Islamiya has subsequently published several books in which they explain their reason for the cessation of violence, arguing that violent jihad did not achieve their desired result. The learning of the Gamaa Islamiya, as this paper will demonstrate, can be explained by analytically framing it within the model of double-loop learning. This analysis is based on five books published by the group and which include comprehensive elaborations on their revisions. These books were collected during the author's field research in Egypt, which included interviews with members of the Gamaa Islamiya. The author's access to the documents of and interviews with the Gamaa Islamiya facilitates an analysis from the point of view of the organization itself. The double-loop learning approach is therefore especially well-suited to an analysis of learning from the point of view of violent organizations rather than from a counterterrorism perspective. This will allow us to better capture the internal reasoning and reflections which determine whether and how a group is able to engage in transformational learning. The relevance of this case for peace and conflict studies and terrorism research lies in the extent to which the rethinking on the part of the Gamaa leaders could be used as a foundation for an approach to deradicalize other groups.

In the first section the paper will explain the concept of Argyris and Schön's double-loop learning model. This model forms the fundamental framework for the analysis applied to the transformation of the Gamaa Islamiya in the subsequent empirical section. In the empirical second section of the paper, the context of the Gamaa's cognitive learning process and the significance and selection of the five books is elaborated upon, before the double-loop learning model is applied to the analysis of the five books of the Gamaa. While four of these books are dedicated to the group's own revisions, the fifth book is an assessment of mistakes made by Al-Qaeda. The concluding discussion returns to the conceptual departure point to ask whether learning by the Gamaa Islamiya and Al-Qaeda could be seen as examples of double-loop and single-loop learning respectively.

## Argyris and Schön's Double-Loop Learning Model

Behavioral and cognitive approaches to organizational learning can be subsumed under what Popova-Nowak and Cseh call the functionalist paradigm,[15] which focuses mainly

on individuals as key agents.[16] When Argyris and Schön suggested the idea of organizational learning in the 1970s, "it seemed to smell quasi-mystical."[17] It was paradoxical to some social scientists to attribute learning to organizations, as Argyris and Schön did.[18] Nowadays, others go further. Popova-Nowak and Cseh describe critical, constructionist, and postmodern paradigms which de-objectify social structures yet remain marginal in studies on organizational learning.[19] The advantage of using Argyris' and Schön's model to study the Gamaa Islamiya lies in its applicability.[20]

Argyris and Schön thereby start with the assumption that "all deliberate action ha[s] a cognitive basis, that it reflect[s] norms, strategies, and assumptions or models of the world."[21] These mental models work as a "frame of reference" which determine expectations regarding cause and effect relationships between actions and outcomes.[22] According to Argyris and Schön, organizational learning becomes necessary when there is an "error," a mismatch between intended outcomes of strategies of action and actual results; consequently, they define learning as the "detection and correction of error."[23] This correction of errors happens through a continuous process of organizational inquiry of varying depth. Argyris and Schön distinguish two types of learning:[24] In *single-loop* learning systems, the detection and correction of error connects the outcome in a single loop only to strategies of action whereas the governing variables remain unchanged. In *double-loop* learning systems, a double feedback loop "connects the detection of error not only to strategies and assumptions for effective performance, but to the very norms which *define* effective performance."[25] Hence, double-loop learning modifies the governing variables underlying objectives.

Single-loop learning to increase the effectiveness of actions is the dominant response to error and ingrained in routine procedures in any organization. Unfortunately, due to organizational inertia and a tendency to become defensive when confronted with failure, organizations have a tendency to produce learning systems that inhibit double-loop learning that would question their objectives and governing variables.[26] Single-loop learning systems are characterized by attempts to increase effectiveness without questioning norms underlying objectives. When organizations initiate change to curb activities under existing norms, a conflict in the norms themselves can emerge. For example, requirements for change can come into conflict with the requirement of predictability.[27] Argyris and Schön suggest that in order to double-loop learn, leaders must first recognize the conflict between conflicting requirements itself. They must become aware that they cannot correct the error by doing better what they already know how to do. They must engage in deep organizational inquiry: in this process the focus has to shift from learning concerned with improvement in the performance of organizational tasks to inquiry through which an organization explores and restructures the values and criteria through which it defines what it *means* by improved performance.[28] This is often inherently conflictual. Double-loop learning can namely be inhibited when norms are undiscussable within organizations. That leaders may be unaware of the conflict between conflicting requirements may be one reason why norms become undiscussable within organizations, leading to a double-bind situation for individuals. If they expose an error, they question covert or unquestionable norms. If they do not expose an error, they perpetuate a process that inhibits organizational learning.[29] Individuals thus face lose/lose

situations in which the rules of the game are not open to discussion.[30] Commonly, organizational norms also make the double binds themselves undiscussable:

> Such procedure means that the very information needed to detect and correct errors becomes undiscussable. If one wanted to design a strategy to inhibit double-loop learning and to encourage error, a better one could not be found.[31]

Argyris and Schön conclude that organizations have a tendency to produce learning systems that inhibit double-loop learning as it would question their objective and norms.[32] Double binds indicate such single-loop learning systems. Does the lack of cognitive abilities, as well as perceptual flaws, explain why individuals become locked in double binds, and why learning in organizations becomes inhibited? According to Argyris and Schön, the problem lies with organizational defenses that lead to a lack of error perception, rendering errors uncorrectable. Defensive organizational routines come into play when threatening or embarrassing issues arise, preventing lessons from being learned.[33] Defensive routines – such as sending mixed messages or being overly diplomatic – are frequently activated when they are most counterproductive. Defensive routines can create binds:

> On the one hand, [ … ] [p]articipants are not supposed to bypass errors. Moreover, the bypass is undiscussable [ … ] On the other hand, if the errors, their undiscussability, and the cover-ups surface, the participants are subject to criticism … [34]

Defensive routines therefore prevent members of organizations from discovering the root causes of the problem and lead to paradoxes because individuals design inconsistencies of meaning and camouflage them by producing mixed messages: "to be consistent, act inconsistently, and act as if that is not the case."[35] A second consequence is that people start creating attributions to make sense of other peoples' actions – attributions which are frequently wrong but remain unquestioned. As a result, reactions lead to unintended consequences. So why do people create consequences that contradict their intentions?[36] Argyris and Schön consider that people are responsible for their actions, and that individuals who deny responsibility usually put the blame on others.[37]

In contrast, in double-loop learning systems productive reasoning takes place, following a logic that is not self-referential, where people take responsibility, acknowledge when there is a mismatch between intention and outcome, share awareness of organizational dilemmas, engage such conflicts through inquiry, and decrease double binds.[38] In this second learning loop, the focus shifts from learning *how* to better accomplish tasks within a given frame of reference to learning *what* to do by questioning the frame of reference itself.[39] In other words, while single-loop learning focuses on improving what an organization already does, or "doing the things right," double-loop learning is concerned with what organizations ought to do, or "doing the right things."[40] However, Argyris and Schön find only limited empirical evidence for double-loop learning systems and remark that it depicts an ideal type that can be approached, making it possible to speak of organizations learning in a more or less double-loop way.[41] The dynamics described above explain how double-loop systems become inhibited and how people hide their responsibility by blaming the environment for their inability to double-loop learn. Argyris and Schön also address intervention strategies that help organizations approach double-loop learning. One tool is the drawing of a diagnostic map describing

how the organization learns. Such a map, they suggest, can help with predictions if certain changes were to be implemented,[42] and can be used to depict alternative scenarios and their consequences. In the following section, the double-loop learning model is applied to the transformation of the Gamaa Islamiya. After elaborating on the internal and external conditions of the cognitive learning process of the Gamaa leaders, as well as the significance of the books analyzed in this paper, the main part of the empirical section will apply Argyris and Schön's concept to five books written by the Gamaa leaders. While four books written in 2002 were dedicated to the revisions of the group, a fifth book written in 2004 is a critique of Al-Qaeda's ideology and strategy. The Gamaa Islamiya's projection of their own learning process onto Al-Qaeda could be almost seen as the drawing of a diagnostic map which describes Al-Qaeda's shortcomings in learning and depicts alternative scenarios.

## The Learning of the Gamaa Islamiya

The two most prominent Islamist organizations that appeared in the second half of the 1970s in Egypt were the Gamaa Islamiya and the Egyptian Jihad. The Gamaa had contacts with like-minded groups, for example the faction of the principal organizer of President Sadat's assassination.[43] The subsequent crackdown led to the imprisonment of many Gamaa members. The consolidation of the Gamaa Islamiya took place in prison, and it can be argued that "IG [Gamaa Islamiya] has one history inside the prison, and a concurrent one outside it."[44] The group developed its rebuilding strategy in prison, consisting of the plan to develop an armed wing. This plan was realized, and group members traveled to Afghanistan to acquire military skills. When they returned, violent confrontation with the state set in. The vicious cycle of violence that began in 1990 was interrupted when, on July 5, 1997, a statement signed by historical Gamaa Islamiya leaders[45] declared a unilateral ceasefire. The initial decision was taken in prison by the group's leaders, but was not approved by leaders either abroad or outside prison. Due to a lack of communication, some radicals carried on with the Luxor operation for which orders had been given in 1996.[46] When the violence culminated in the Luxor Massacre in November 1997, the killing of more than 60 civilians further distanced the group from popular support, and the violence did not accomplish the group's desired goals. The historical Gamaa leadership strongly condemned the massacre, which was the group's last violent act. On March 28, 1999, group leaders in Egypt and abroad declared their support for the ceasefire initiative.[47] Following several years of ideological revisions, the organization came to the conclusion that the campaign of violence – which had lasted for more than 20 years – was based on an incorrect interpretation of religious texts. Although the group rejected any notion of surrendering to the government, they did admit that mistakes had been made. The Gamaa Islamiya has subsequently published several books in which they explain their reason for the cessation of violence, arguing that violent jihad did not achieve the desired result. This paper seeks to make sense of the logic that the Gamaa leaders followed. In this empirical section, the concept of double-loop learning is applied to the transformation of the Gamaa Islamiya. Before thus examining the group's internal reflections and the arguments its leaders employed to justify the revisions, the first subsection will briefly elaborate upon

internal and external factors that conditioned the group's learning process. Subsequently, the second subsection is dedicated to clarifying the relevance of the five books analyzed in this paper, before the third subsection shifts the focus to the cognitive process itself.

## The Context

While in this paper the analysis of the Gamaa Islamiya's transformation is guided by the idea of investigating the internal reasoning and reflections underlying the group's learning process, the conditions for this process are of course equally important to establish. Cognitive learning processes are conditioned by factors both internal and external to the group. The double-loop learning model is but one possible approach to the transformation of the Gamaa Islamiya. Several other factors influenced the decision of the Gamaa Islamiya leaders to declare a ceasefire. In fact, organizational inquiry is conditioned by internal and external factors. In order to learn more about the conditions that facilitate or inhibit organizational learning, the ways in which the internal and external conditions of organizations affect the capacity for such inquiry should be explored. Internal conditions are relevant because double-loop learning can be either facilitated or hindered by both leaders and followers. That means that leaders have to take followers into account when engaging in organizational inquiry. With regards to the internal conditions that influenced the Gamaa Islamiya's learning process, the cohesiveness of the group is contested among scholars. While some speak of fragmentation processes within the group, especially with regard to differences among the imprisoned historical leaders and exiled leaders, the group's spokesperson al-Zayyat emphasized that there were no internal divisions.[48] However, the internal organizational conditions for double-loop learning interact with external conditions when terrorist groups undertake organizational inquiry. Less contested than the internal conditions of the Gamaa Islamiya is the influential impact of external conditions on the group's internal state. Among these external conditions, the impact of the state has been crucial. At first sight it is puzzling that the leaders undertook such far-reaching revisions while they were in prison. Pressure is more usually correlated with a change of routine behavior than it is with gaining insight, and can often have the opposite effect.[49] Omar Ashour concludes that it was repression that first led the Gamaa to radicalize in the early 1980s, and the leadership later referred to state repression as a source of their revisions, given that they were forced to reevaluate the costs and benefits of violence.[50] However, the influence of the state was not only characterized by its repressive nature. The state also pursued several conciliatory strategies in order to moderate the Gamaa Islamiya. One of these strategies came in form of prisoner release, a factor also mentioned by Ashour. Moreover, the government not only facilitated the Gamaa Islamiya's transformation through selective concessions, it also sent intermediaries.[51] These intermediaries were usually religious scholars who went into the prisons with the goal of influencing the Gamaa members' religious views. According to Lisa Blaydes and Lawrence Rubin, the active gesture of using intermediaries was accompanied by very influential nonactions. Important among these nonactions was the state's decision to allow the Gamaa to keep its leadership structure:

> The members of the IG were allowed to engage in religious study together within prisons and prisoners were permitted to debate one another on issues related to Islamic interpretation … By maintaining the organizational integrity of the IG, the dissemination of the new initiative to end violence was facilitated significantly.[52]

That the Gamaa Islamiya was allowed to maintain unity also paid off when the state allowed prison tours, which the leaders of the Gamaa used to discuss their ideas with their followers. Communication played a key role in convincing the base of the new approach. Furthermore, in prison and during the prison tours, the members of the Gamaa Islamiya came into contact with other inmates. According to Omar Ashour, interaction with other political prisoners played a key role because it opened leaders' eyes to different worldviews.[53]

The transformation inside the prison was also influenced by the change in how the Gamaa Islamiya was received outside the prison. When the leaders questioned their armed struggle, they took into account their alienation from society. Several deadly attacks were no longer tolerated by the population. With tourism a source of income for many Egyptians, the Gamaa soon found itself isolated and without support. Audrey Cronin has noted that society's diminishing support for an armed group comes along with support of repressive measures by the state against these groups.[54] Therewith the attitude of the population was arguably not without impact upon the state's repression against the Gamaa Islamiya.

The cognitive learning process of the Gamaa Islamiya was influenced by internal conditioning factors such as group cohesiveness, as well as external factors such as repressive and conciliatory measures by the state, other prisoners, and the population. Internally, the revisions by the leaders could be conveyed to the followers. While the degree of internal fragmentation is contested, group unity was influenced by external factors. Among these external factors are measures by the state that facilitated the communications internal to the group. These communications were crucial to implementing the revisions. However, communications did not only play a role in implementation but also in the leaders' reflections. For example, communication beyond the group, such as with other political prisoners, played a role in the group's cognitive learning process. Being exposed to different worldviews added to the leaders' openness to change. The factors that conditioned the Gamaa's transformation interacted in facilitating the leaders' double-loop learning. While the double-loop learning model is but one approach to the transformation of the Gamaa Islamiya, the internal and external conditions should not be neglected. Rather than providing alternative explanations of the Gamaa's cessation of violence, the internal and external conditions, and the cognitive process itself, should be seen as complementary. Hence, while keeping in mind these conditioning factors, the next subsection shifts the focus to this cognitive learning process. This cognitive learning process can be traced in several books which contain reflections on the ceasefire initiative. In the next subsection the relevance of the five books analyzed in this paper is elaborated upon, before the main analysis applying Argyris' and Schön's concept to the reflections of the Gamaa Islamiya.

## *The Books*

On July 5, 1997, a statement declaring the unilateral ceasefire was signed by the historical Gamaa Islamiya leaders.[55] The term "historical leaders[was]coined by the Egyptian

media, referring to the IG leadership of the 1970s. Almost all of these leaders were sentenced in the al-Jihad Trials of 1981 following the assassination of President Anwar Sadat."[56] The historical leaders hence announced the statement while sitting in prison. The next step in the deradicalization process was marked by the production of new literature by the group's leaders ideologically legitimizing the behavioral transformations. The resulting Corrective Concepts Series consists of approximately 20 independent publications written by the historical leaders. The first four publications, from 2002, provide an extensive refutation of Gamaa's own earlier interpretation of jihad.[57] This paper analyses these four books[58] published by the leaders in 2002:

*An Initiative for Non-Violence: A Vision and Reality*

*Prohibition of Unreasonable Excess in Religion and Excommunication of Muslims*

*Shedding Light on Errors Committed in Jihad*

*Advice and Clarifications to Correct the Understanding of Muhtasibs*

The author had the chance to collect these books during field research in Egypt. The four books are occupied with the practical and ideological justification behind the ceasefire initiative. They are therefore especially well-suited to analyzing the internal reflections guiding the group's transformation. These four books were followed by 16 further books. Two of these 16 further books provided a critique of the ideology and strategy of Al-Qaeda. One of these, published in 2004 and entitled *Al Qaida's Strategy and Bombings: Errors and Dangers*, represents a critical analysis of mistakes made by Al Qaida. This paper analyses this book on Al-Qaeda's mistakes in addition to the four books written in 2002.

The Corrective Concepts Series was written by the historic leaders of the Gamaa Islamiya, namely by five original members: Abd al-Rahman, Shaykh Salah Hashim, Karam Zuhdi, Usamah Hafez, and Muhammad Shawqi al-Islambul. Furthermore, three others joined: Najih Ibrahim Asim, Abd-al-Majid, and Isam Dirbalah. Najih Ibrahim was the senior scholar of the group and provided the main contributions to the corrections.[59] As Paul Kalmolnick writes "[e]ach historic leader was either a senior author, coauthor, or consultative reviewer, for these publications. At the time of their writing, all were serving extended prison sentences and were leading members of the IG's 15-member Majlis Al-Shura (Consultative Council, the leading organ of the IG)."[60]

While the books were written by the leaders, other members of the group also had to be convinced. The production of the books was therefore followed by attempts to persuade middle-ranks and sympathizers to follow the new direction and by efforts to address the general public, the Muslim world and the international community.[61] According to Omar Ashour, there were at least 14 failed attempts to renounce violence[62] before the 1997 declaration, which all had two factors in common that explain why they failed. Firstly, there was a lack of consensus among the historical leaders about renouncing violence, and secondly, "[i]n the eyes of their followers, that historical leadership was the only possible source that could bestow "Islamic legitimacy" on a comprehensive ideological de-legitimization of violence."[63] The 1997 initiative and what followed differed because the prison debates resulted in the publication of the books

detailing the group's ideological revisions. These books were significant and credible because they provided a comprehensive ideological de-legitimization of violence, and because they were written by the historical leaders themselves:

> From the IG members' perspective, the historical leadership is credible enough and beyond co-optation and weakening. This perception was made clear on several occasions … rather than holding the leaders accountable for disastrous decisions, the members upheld and rallied around them. Despite the signs of respect and evidence that the historical leaders were still in relative control of hearts and minds, convincing the followers that they had been wrong for the last two decades was not an easy task.[64]

Omar Ashour elaborates on the efforts by the historical leaders to convince the base. According to him they achieved this by taking a unanimous decision to stop violence and by holding internal debates in prisons.[65] While the internal reception of the books was one thing, its reception by other groups was another. Significantly, Al-Qaeda – which was extensively criticized in one of the books – questioned the credibility of the revisions. Ayman al-Zawahiri dedicated a part of his book *Knights under the Prophet's Banner* to the revisions of the Gamaa Islamiya. This underlines the importance of the revisions in wider Islamist circles. In the book, Zawahiri accused the Gamaa Islamiya leaders of selling out the cause and trading it for worldly matters.[66] He calls them Zionist spies and state agents. The question this criticism raises is how genuine the transformation really was and whether it was only lip service brought forward in order to secure reduced prison sentences. Christoph Schuck has argued that the *taqiyya* principle might have served as a catalyst for the group to transfer instability into a rejection of violence. *Taqiyya* "refers to a tactic originally employed in Shiite circles, but […] now also used by Sunnis, where a group pretends to adapt itself to a situation at a time when it is weak."[67] Schuck implies that the Gamaa has not changed its long-term goals, only its means, and that this can be seen as an evidence of the group's *Scheinanpassung*.[68] The advantage of the double-loop learning model is that it makes it possible to trace deep strategic changes, including strategic changes that imply a turn to pragmatism. Even if the Gamaa Islamiya leaders used the revisions to pursue what Zawahiri calls "worldly matters" this implies a pragmatic turn that can still be described as a deep change, considering the group's previous worldviews. The new pragmatism of the Gamaa Islamiya is characterized by a rethinking of the group's means-ends relations – a rethinking that goes to the bottom of the group's raison d'être and that can be captured with the double-loop learning model.

The leaders themselves describe their change of mind in the following words:

> The best thing is to take time to think when you are somewhat remote from the struggle, and you are able to look over the whole map from a distance […] Those who work for Islam have been prevented from doing so over recent years under the pressures of the terrible persecution they have faced, and their activity has become simply action and reaction.[69]

This paper explains what the Gamaa leaders saw when they analyzed their situation from a distance and explains the learning process that took place within the organization. Accordingly, the next subsection is dedicated to that analysis.

### The Double-Loop Learning of the Gamaa Islamiya

The Gamaa Islamiya's deradicalization process can be looked at through the lens of Argyris and Schön's double-loop learning. At several points in the books, the Gamaa leaders laid out their own understanding of learning. Thus, in *Shedding Light on Errors Committed in Jihad*, they write: "We cannot live two lives or live our years twice over so as to have one life in which to experiment and make errors and another in which to learn from our mistakes."[70] The leaders state that they are able to learn from their mistakes. One senior leader, the former commander of the group's military wing, reiterates his view that wrong choices were made, saying "We renounced violence only after years of self-searching and analysis of what we have accomplished throughout that period. We were wrong."[71] In this section the theoretical notions of the double-loop learning model are applied in order to understand how the leaders arrived at this realization.

### Conflicting Requirements

Argyris and Schön suggest that in order to double-loop learn, leaders must recognize if a conflict between conflicting requirements emerges. They must become aware that they cannot correct the error by doing better what they already know how to do. Instead, they must engage in deep organizational inquiry: In this process the focus has to shift from learning concerned with improvement in the performance of organizational tasks to inquiry through which an organization explores and restructures the values and criteria through which it defines what it *means* by improved performance. In other words, organizations have to question the norms and values underlying the conflicting requirements. The Gamaa Islamiya's leaders emphasized in their books that their ultimate goal is to guide humankind: "[g]uiding people to righteousness is the ultimate goal."[72] Through their revisions they found that jihad is a means to that goal and that the end of guiding humankind comes ahead of the means. For the Gamaa, jihad itself had become the goal, and the revisions represented a testimony to how the group's leaders became aware of how jihad as an end in itself conflicted with the guiding of humankind. Ultimately, they solved the tension between the two conflicting requirements, explaining the importance of distinguishing between ends and means: while an end cannot be forbidden, a means may be prohibited – especially if it is counterproductive to reaching the desired end. The means should be governed by the end and ranked according to the balance of interests and wrongs, so that when it came to balancing wrongs, the Gamaa's leaders preferred the lesser of two evils: "Corruption is allowed to grow if removing it would lead to greater corruption."[73] The leaders arrived at this insight when they realized the counterproductive consequences of their previous violence. What they had achieved was in fact an increase in oppression, injustice, and the number of detainees being held, as well as damaging the reputation of Muslims.[74] "Islam became the primary enemy, in place of Communism."[75]

The group concluded that violence could not be an end in itself and must be prohibited if it supports no one's interests. Fighting those who do not fight back is especially forbidden, so violence against civilians – including women, children and the elderly – is not permitted.[76] The image of Islam that has emerged from the group's violence was seen as especially counterproductive by the group's leaders: "our true religion has laid

down the greatest of charters and codes for the conduct of war. We were civilized before the West knew the meaning of civilization…"[77] In the end, group leaders were forced to conclude that violence had given the West a reason for launching a war on terror, meaning that violence by Muslims had led to violence against Muslims.[78]

Reflection on the two conflicting requirements of guiding humankind and jihad involved questioning underlying norms, which came about with a change in the group's understanding of Jihad. Thus, in Chapter One of their book *Shedding Light on Errors Committed in Jihad,* the group elaborated on the lawfulness of changing interpretations in jurisprudence and wrote: "there is no doubt but that the heavenly laws have changed with peoples and times."[79] One existing norm underlying jihad that the Gamaa leaders started questioning was the element of excess.[80] In *Prohibition of Unreasonable Excess in Religion and Excommunication of Muslims*, the leaders describe the innovations in excommunication that had emerged in Egypt in prison in the 1960s. The cruel torture of the detainees provoked questions as the detainees wondered why they were being tortured – a question they answered with their belief in Allah. The question that followed was whether those who were torturing them could be considered Muslims – something they denied. But the next question asked was can decision-makers be considered believers? Again, the detainees decided that the authorities were represented by unbelievers. But where did that leave those who obey the rules set by the decision-makers? A subsequent process of super-excommunication set in that resembled a "fission bomb."[81] This excess had to be halted, the leaders concluded, because it is only short-lived and does not lead to continuity.[82] The Gamaa leaders questioned the underlying norm of excess and suggested that moderation should triumph over excess as well as deficiency. "Unreasonable excess and deficiency are two faces of a single coin. […] Religion is the middle ground."[83]

The element of capability is closely related to excess – another underlying norm the Gamaa's leaders started questioning. The inability to reach the end successfully via jihad was seen as an impediment to jihad.[84] Capability, therefore, "is not merely a temporary capacity to stop a current wrongdoing without considering the detrimental consequences of the act."[85] Capability means a realistic assessment of the situation, and according to the leaders Islam is a realistic religion.[86] They imply that retreat is permissible in times of weakness – and that when enemy forces outnumber one's own, retreat is the only rational option.[87]

The Gamaa leadership solved the conflicting requirements of guiding humankind and jihad by differentiating between ends and means: "If a principle conflicts with something that is derived from it, the principle takes precedence over the derived concept."[88] This process was initiated when the leaders became aware of the conflict between guiding humankind and jihad, and was accompanied by the questioning of norms that defined them, such as excess and capability. Leaders became aware of the counterproductive consequences of violence and the need to prioritize and weigh decisions. They also questioned their assumptions about their enemies by applying their own judgement to others and by warning other Islamic movements against falling into the "'clash of civilisations' trap."[89] In the end they found that the true enemies of Islam were poverty and regression.[90] This rethinking of what constituted the enemy entailed a consideration of the rightfulness of peace treaties. The leaders called for flexibility in dealing with

reality, like the Prophet who "was a master, when he at times patiently withstood wrongs, other times made peace and treaties and assurances, and other times made alliances and entered into cooperation."[91]

### Double Binds

At first, the Gamaa Islamiya leaders found themselves in a no-win situation. Argyris and Schön describe how not questioning norms can lead to double-bind situations for individuals within organizations. The Gamaa's violence was counterproductive, but agreeing to refrain from violence was equally unsatisfactory. Furthermore, the achievements of jihad stood in opposition: "in this case the aims will contend with one another [ ... ] to the extent that it will not be possible to achieve some of them except at the expense of others."[92] The leaders solved this problem recommending that certain aims should be prioritized over others: "There will be a duty more certain than any other, which must be prioritized."[93] They recommended that if two forbidden acts coexisted, the lesser could be committed if it was the only way to avoid the greater. According to Sharia law, it is preferable to achieve the better of two goods and prevent the worse of two evils.[94] This balance constitutes a solution to the double-bind dilemma. When faced with a lose/lose situation, avoiding the greater loss is realistic and beneficial. The Gamaa leaders recognized the existence of double binds and made them discussable. Only by discussing these dilemmas could they become aware of inherent contradictions and solve them.

### Defensive Routines

Becoming aware of errors that lead to contradictions can be inhibited by certain routines. As previously mentioned, single-loop learning leads to long-term ineffectiveness and the reduced capacity for double-loop learning.[95] This occurs because group members "respond to conditions for error in ways that reinforce conditions for error."[96] The reason for such response often lies in defensive routines. The Gamaa leaders uncovered the errors they were making and identified obstacles to correcting their course.[97] Many Muslim societies fall short of such self-criticism, they contended, and "points of error multiply."[98] Thus, "Human beings are enchanted by their own actions [ ... ] they consider that they have reached perfection in their works, and shortcomings or defects should not be sought within them."[99] A further obstacle surrounds the notion that leaders are excessively sanctified, and that such excess is unnecessary and counterproductive.[100] Moreover, ignorance and fancy "obscure the truth of matters from man."[101] And man is often "hostile towards that of which he is ignorant."[102] An excellent description of a defensive routine is given by the leaders in the following words:

> The greatest shortcoming of the ignorant person is that he hates to be described as ignorant or to appear as such, especially amongst his followers, if he is a leader. Therefore, he flies from any investigation of his soul, and any attempts to evaluate him.[103]

Such mechanisms lie at the heart of problems becoming undiscussable and cause people to respond to error in ways that amplify the conditions for error. From their own experience, the Gamaa leaders concluded that correcting an error is difficult because of one's own misconceptions – which are aggravated by further misconceptions. For

example, the conflict between the various sections of Islam adds to the challenge. Typically, one group wants to improve at the expense of another, rendering the withdrawal from error difficult, since the other group might defame those admitting error.[104] Leaders also fear discord among adherents. The Gamaa leaders describe how some believe that admitting an error may lose them followers. However, "[d]iscord arises from continuation in error."[105] In the end it is frequently pressure from security policies that prevents young group members from looking inwards: "it is not easy to release an idea for which one has suffered harm, and sacrificed the flower of one's youth …"[106] These obstacles to reviewing errors were identified by the Gamaa. They are typical of defensive routines, representing reactions to fears of threat and embarrassment. The leaders deconstructed these obstacles and problematized the underlying reasons for the lack of self-review, demonstrating the depth of their learning, which went beyond mere lip service, as evidenced by their elaborations on sincerity. They referred to sincerity as the designation of the rightness of a pious act by its intention.[107] A pious man, they stated, recognizes sincerity in himself when he is not dependent on praise and blame from others, ignores himself when performing good deeds and looks for rewards in the next world.[108]

### Paradoxes

The relationship between intention and consequence is a further topic of concern for the Gamaa's leaders. At several points in the books they note that the outcome of their violence was not their intention, and struggle with the question of whether a good intention equates to a bad one if both lead to the same wrong act. They conclude that: "A person who wishes for good and makes an error is not the same as a person who wishes for evil and is successful in achieving it."[109] Nevertheless, the Gamaa took responsibility for its actions and it is only through admitting this responsibility that its leaders became able to review their errors, concluding that: "The truth of the heart can only be indicated through evident actions."[110]

### Mapping Al-Qaeda's Learning

*Al Qaida's Strategy and Bombings: Errors and Dangers*, published by the Gamaa Islamiya in 2004, could be interpreted as a projection of the Gamaa's own progress onto Al-Qaeda's comparatively limited learning. "When we criticize Al-Qaeda's vision … it is a thorough criticism that may be related to probing the depths of [the Gamaa Islamiya's] vision."[111] They directly compared the vision underlying their initiative with the vision of Al-Qaeda, noting clear disagreements on understanding the rules of Islamic law and applying them to reality.[112] According to the Gamaa, Al-Qaeda misreads reality and the concept of Jihad, seeing it as an end in itself.[113] Al-Qaeda's shift in focus to the far enemy, which it justifies by citing U.S. strategy towards Islamic countries, presents a misreading of reality. The Gamaa leaders argued that America bases its strategy on economic interests rather than religion, and conclude that U.S. strategy towards the Islamic world "does not always assume a single form. It varies in accordance with the requirements of American interests."[114]

The Gamaa leaders also discussed Al-Qaeda's justification of violence – that a crusader war against Muslims is being waged. The Gamaa concluded that most conflicts are between Christians,[115] and that Al-Qaeda misunderstood the character and strategy of the enemy. It also contended that Al-Qaeda misread the nature of the confrontation with the U.S. on various levels by assuming that the U.S. would not tolerate military losses and would withdraw from Saudi Arabia and the Gulf just like it did from Vietnam and Somalia. The Gamaa leaders indicated counterevidence, such as when the U.S. forced Iraq to withdraw from Kuwait and toppled Saddam Hussein.[116] Another element of Al-Qaeda's misreading of reality is its misinterpretation of its own capacities and those of the Ummah: "[w]here today are the capabilities of the Islamic Ummah to face up to the alliance of Jews, Crusaders and Americans … ?"[117] Al-Qaeda's strategy to force the Ummah into confrontation with the U.S. despite any chance of victory represents an oppression of the Ummah, according to the Gamaa. The Gamaa leaders agreed that obedience to Allah is essential to victory, stating that "obedience to Allah means taking up the causes that Allah has linked to victory."[118] But they pointed out that many walking on the path of jihad neglect "to engage with the causative factors of success."[119]

According to the Gamaa's leaders, Al-Qaeda's strategy has been counterproductive, rousing the enemy and globalizing the conflict. "If it did not realize, that is a disaster; but if it did realize, that disaster is all the greater."[120] The disaster in question concerns Al-Qaeda's objectives as well as those of other Islamic countries. Instead of defining the enemy and neutralizing others,[121] Al-Qaeda's strategy led to the collapse of the Afghan regime, depriving the organization of its safe haven.[122] Its strategy – or lack of it – has been self-defeating, and the counterproductive consequences of Al-Qaeda's violence have been felt across the Islamic world. Al-Qaeda blurred "the dividing line between legitimate resistance against occupation and that which was called terrorism"[123] by involving Islamic movements globally. The Gamaa leaders described how Bin Laden replied when he was asked by one of Al-Qaeda's leaders whether the establishment of a World Islamic front to fight Crusaders, Jews and Americans would be realistic and not counterproductive: "Perhaps that struggle will take the generation or generations after us, but it is sufficient that we set the spark of jihad alight in order to pass it on to those that follow to complete the journey."[124] The Gamaa leaders argued that this clearly reveals a misunderstanding of the duty of jihad, revealing that jihad has become an end in itself, removed from its means. Jihad should not be conceptually limited to fighting and killing; it is more holistic and has multiple meanings,[125] they argued. For example, the martyrdom of someone who has placed their interests in the afterlife must also place the interest of the Ummah over personal interests, they contended. Counterproductive martyrdom is thus not in the interest of the Ummah, and exemplifies a misunderstanding of jihad.[126] When asked "[w]hy is jihad missing its interest, and why is its capacity absent?"[127] some might say that "the results are down to Allah,"[128] but the Gamaa leaders did not agree with this reasoning and took responsibility for their actions. Referring to Allah when a chance for victory is missing represents an avoidance of responsibility, leading to a mismatch between intention and outcome. But while the Gamaa leaders perceived such mismatches as occasions for review, Al-Qaeda "respond[s] to conditions for error in ways that reinforce conditions for error."[129]

## Al-Qaeda's Double Bind

The Gamaa leaders considered that the aims of jihad can be contradictory, leading to a situation in which it is not possible to achieve some aims except at the expense of others. The answer, according to the Gamaa leaders, lies in prioritization: "There will be a duty more certain than any other, which must be prioritized, and there will be an aim that takes precedence …"[130] If two acts are forbidden and the greater one cannot be avoided except by committing the lesser one, then committing the lesser one is not forbidden.[131] Instead of perceiving the world in black and white, the Gamaa made a plea for gray areas: "Allah loves penetrating clear-sightedness when there are confusions and loves the complete rational mind when dissolving passions."[132] According to the Gamaa leaders, the aims of Al-Qaeda are contradictory. It has amassed enemies all over the world instead of devoting itself to one aim – the defense of the Islamic state in Afghanistan. As a result, none of Al-Qaeda's aims has been achieved.[133] Instead of prioritizing and differentiating, Al-Qaeda employs indiscriminate violence, dividing the world into enemy schema along black and white patterns and employing violence against civilians on the basis of their citizenship.[134] The Gamaa leaders examined several examples of Al-Qaeda's violence, laying out the jurisprudence that forbids such acts. Thus, blowing up an airplane is prohibited,[135] as is martyrdom without purpose and without benefit for the whole Ummah;[136] firing upon Muslim human shields is prohibited[137] and targeting tourists is prohibited because they have been given assurances.[138]

In summary, the Gamaa found that Al-Qaeda deals inadequately with reality because it misunderstands it:

> Improper interaction with reality is not limited to those who are defeated by it or who are unaware of its facts; the matter extends to others who look at reality through a lens that is sometimes colored by their desires and sometimes by their anger. There are also those who rely on interpreting reality using erroneous interpretations; some might rely on a conspiracy-based interpretation of events and facts, while others might rely on a deterministic interpretation of the course of events on the basis of historical or economic determinism, or some other form thereof, as if life were a chemical laboratory[139]

Reality, the leaders explained, is composed of different interdependent particulars of humanity causing disparate patterns of cooperation and conflict.[140] Reality is not static, it changes. Reality is complex, and Al-Qaeda's reduction of this complexity is counterproductive. Grasping the complexity of reality means differentiation and prioritization: "a sane man is not one who knows the difference between good and evil, but one who knows the better of two good things and the worst of two evil things."[141] Instead of reducing complexity to matters of either-or and hence getting caught in double-bind situations, the Gamaa leaders pledged for the removal of double binds by adopting an approach that allows them to conceive the complexity of peace treaties rather than to pursue conflict. At several points they emphasized that a treaty cannot be broken: "the initiative … represents a treaty that must be respected and not broken."[142] Al-Qaeda's view of reality is governed by the opinion that peacemaking with America represents betrayal, while the Gamaa leaders consider strategies of peacemaking and negotiation can be followed without shame.[143]

## Conclusion

When the fight for the near enemy was lost, Osama bin Laden chose to free the Ummah from its predicament by establishing the "World Islamic Front to Fight Crusaders, Jews and Americans," making American civilians legitimate targets for its violence. Al-Qaeda reacted to the impasse of Egyptian Islamist groups by radicalizing even further. Jihad was taken beyond its function as a means to an end and became the end. Al-Qaeda aimed to increase the effectiveness of violence by escalating it, remaining unaware of the resulting contradictions, but its aims contradicted each other, resulting in a double-bind scenario. Fighting on multiple fronts, the group lacked foresight and failed to prioritize its aims, thus achieving none of them. According to the Gamaa Islamiya, Al-Qaeda's lack of prioritization is one of the symptoms of the group's misunderstanding of reality. It lacked sufficient understanding of the nature and character of the far enemy, mistakenly assuming that the U.S. was fighting a religious war against Islam.[144] It misconceived the capability of the Ummah, neglecting its weakness and fragmentation.[145] It exercised counterproductive violence,[146] forfeiting the possibility of peace. According to Argyris and Schön, success is measured by effectiveness in single-loop learning systems. However, single-loop learning leads to long-term ineffectiveness and reduces the capacity for double-loop learning[147] because members of organizations "respond to conditions for error in ways that reinforce conditions for error."[148] Al-Qaeda's approach to correcting the errors of Islamist groups in Egypt fighting the near enemy was to do more of what was done before – more violence this time targeted at the far enemy. Its attempt to increase the effectiveness of violence decreased the chance of questioning the norms underlying the objective of effectiveness. Instead of questioning its perception of reality, Al-Qaeda simply did more of what had already been shown to be ineffective. Instead of discussing the double binds they found themselves in, they added new enemies and increased the dilemma of contending aims. Therewith, single-loop learning led to a reduced capacity for double-loop learning.

The Gamaa Islamiya leaders probed their own vision by applying their insights onto Al-Qaeda, which reconfirmed their revisions. They had been locked in a similar situation to Al-Qaeda, caught in double binds of contradicting aims. However, they became aware of these traps. Double-bind situations that are undiscussable can come along with defensive routines which occur to prevent embarrassment and threat. The Gamaa leaders unlocked these inhibiting mechanisms and postulated that routines such as being ashamed of committing errors as a leader are obstacles to "reviewing the soul." As a consequence, they were able to find an exit to double binds by prioritizing aims and committing themselves to the better good and the lesser evil. The main conflict lay in the contradiction between guiding humankind and pursuing jihad. The Gamaa became aware of the conflict and problematized it, concluding that jihad is a means to an end, not an end in itself. When they realized that jihad brought more harm than good, they also questioned the defining norms of excess and capability.

The Gamaa leaders initiated their search process when they detected a mismatch between intention and outcome, but instead of blaming others, they took responsibility and reviewed the reasons for this mismatch. At the end of the book on Al-Qaeda, the Gamaa leaders asked themselves: "Even if Al Qaida's strategy is wrong, what's the alternative?"[149] They answer that question with two scenarios: "a dialog or a clash [ … ]

communication or conflict,"[150] arguing that dialog and communication are the solution, because Al-Qaeda's path will not bring change. They advised Al-Qaeda to review its strategy and make it more realistic, a review that would by no means imply shame. While the Gamaa reacted to the mismatch between intention and outcome with an in-depth inquiry and by making dilemmas discussable, Al-Qaeda continued on a path that had already proved counterproductive.

Has the Gamaa Islamiya achieved long-term change? In order to answer the question of how sustainable its learning process has been, a look into the aftermath of its dera-dicalization is useful. Initially, the Gamaa rejected democracy. When Ewan Stein inter-viewed Najih Ibrahim, one of the group's leaders, in 2009, he got "the sense from talking to Ibrahim that the Gamaa would participate in political life, were it allowed to."[151] The Gamaa previously considered Islam and democracy to be incompatible, and rejected taking part in the political process initially. However, in 2011 the group formed its own political party, the Building and Development Party, which gained seats in the lower house of Egypt's postMubarak parliament in the 2011/12 elections. Despite popu-lar resistance, a party member even became Governor of Luxor in 2013, where the Gamaa Islamiya had perpetrated the 1997 massacre.[152] Furthermore, in some regions the group started assisting the police, according to Abigail Hauslohner in 2013, which aroused mixed feelings among the residents. A group leader stated "People listen to us because they love us. [ … ] No matter how able we become, we are only assisting [ … ] we cannot replace the government."[153]

When President Morsi was ousted on July 3, 2013, the Gamaa Islamiya partici-pated in the AntiCoup Alliance against the current regime alongside the Muslim Brotherhood. However, according to George Mikhail, the group subsequently dis-rupted the Muslim Brotherhood alliance, indicating that it might have been moving to a proregime position.[154] The participation of the Gamaa Islamiya in democracy shows a profound change in outlook.[155] Handling politics implies not only adapta-tion but a certain pragmatism.[156] The Gamaa's founding of a political party and its willingness to form alliances speak of a high degree of moderation. The far reach of the group in terms of its goals serves to question Schuck's interpretation of the initiative as an application of the *taqqiya* principle. Schuck cautions against the per-ception that the Gamaa might never return to violence.[157] However, the learning process outlined in this paper speaks against a mere *Scheinanpassung*. After all, as the leaders themselves expressed it: "the initiative [ … ] represents a treaty that must be respected and not broken."[158] According to Starbuck and Hedberg, "[c]ognitive approaches make effective learning dependent upon realistic perceptions."[159] The Gamaa's cognitive learning process entailed a realistic assessment of its environment and a turn towards pragmatism – the nature of which Schuck misunderstood. What Schuck describes as *Scheinanpassung* is in fact a new experience of reality that speaks precisely to the depth of the group's cognitive learning process. The current regime in Egypt might thereby be seen by the group as just another test of its commitment.

The Gamaa's far-reaching revisions and commitment is puzzling when considering where the group came from. A cognitive approach to the transformation of groups helps explain how members modify the cognitive maps that guide their actions. As a

result, we can trace processes of cognitive change and understand the arguments the group's members debate when embarking on a peaceful path. The deradicalization of the Gamaa Islamiya is not a unique process, and movements all over the world have exchanged violence for peaceful processes. The Provisional Irish Republican Army, for example, convinced its followers by arguing that they were changing the means rather than the ends, and that a new approach does not equal surrender. The astonishing similarities in the arguments employed by leaders from different movements suggest that a deradicalization logic can be traced, a logic that might apply to current peace processes in Colombia or previous ones in Palestine. A longer-term perspective would give us clues about radicalization and deradicalization patterns over time, thereby helping us understand the common logic of the waves of conflict.

## Notes

1. William H. Starbuck and Bo Hedberg, "How Organizations learn from Success and Failure," in *Handbook of Organizational Learning and Knowledge*, ed. M. Dierkes, A. Berthoin Antal, J. Child, and I. Nonaka (Oxford: Oxford University Press, 2001), 1–26.
2. Ibid.
3. Ibid.
4. The author herewith acknowledges the support of Michael Fürstenberg in writing this paper. Michael Fürstenberg is a post-doctoral scholar at the Max Planck Institute for Social Anthropology in Halle, Germany.
5. Chris Argyris and Donald A. Schön, *Organizational Learning: A Theory of Action Perspective* (Reading, MA: Addison-Wesley, 1978); Chris Argyris and Donald A. Schön, *Organizational Learning II: Theory, Method and Practice* (Reading, MA: Addison-Wesley, 1996).
6. Mohamed Chatti, Matthias Jarke, and Ulrike Schroeder, "Double-Loop Learning," in *Encyclopedia of the Sciences of Learning*, ed. Norbert M. Seel (Boston, MA: Springer, 2012), 1035–37.
7. Anders Örtebland, "Learning, Double-Loop," in *International Encyclopedia of Organization Studies*, ed. Stewart Clegg and James R. Bailey (Thousand Oaks, CA: SAGE, 2008), 805–806.
8. Argyris and Schön, *Organizational Learning: A Theory of Action Perspective*, 2–3.
9. Mohammed H. Hafez, "Fratricidal Jihadists: Why Islamists Keep Losing their Civil Wars," *Middle East Policy* 25, no. 2 (2018): 96.
10. Starbuck and Hedberg, "How Organizations Learn from Success and Failure," 1–26.
11. Ibid., 8.
12. Ibid., 1.
13. See, for example, Naureen Chowdhury Fink and Ellie B. Hearne, "Beyond Terrorism: Deradicalization and Disengagement from Violent Extremism" (International Peace Institute, October 2008).
14. Dina Al Raffie, "Straight from the Horse's Mouth: Exploring Deradicalization Claims of Former Egyptian Militant Leaders," *Perspectives on Terrorism* 9, no. 1 (February 2015).
15. Irina V. Popova-Nowak and Maria Cseh, "The Meaning of Organizational Learning," *Human Resource Development Review* 14, no. 3 (2015): 305, doi:10.1177/1534484315596856.
16. Ibid., 306.
17. Argyris and Schön, *Organizational Learning II: Theory, Method, and Practice,* 4.
18. Argyris and Schön, *Organizational Learning: A Theory of Action Perspective,* 16.
19. Popova-Nowak and Cseh, "The Meaning of Organizational Learning," 307.
20. This applicability has limitations. A thorough application of Argyris and Schön's model would imply direct and repeated access to the group that would allow the construction of a diagnostic map.

21. Argyris and Schön, *Organizational Learning: A Theory of Action Perspective,* 10.
22. Örtebland, "Learning, Double-Loop," 805.
23. Argyris and Schön, *Organizational Learning: A Theory of Action Perspective,* 2.
24. Argyris and Schön, *Organizational Learning: A Theory of Action Perspective,* 2–3.
25. Argyris and Schön, *Organizational Learning: A Theory of Action Perspective,* 22.
26. Argyris and Schön, *Organizational Learning: A Theory of Action Perspective,* 3–4.
27. Ibid., 21.
28. Argyris and Schön, *Organizational Learning II: Theory, Method, and Practice,* 20.
29. Ibid., 3.
30. Ibid., 119.
31. Ibid., 3–4.
32. Ibid.
33. Chris Argyris, *On Organizational Learning*, 2nd ed. (Oxford: Blackwell Business, 1999), 56.
34. Ibid.
35. Ibid., 94.
36. Ibid., 95.
37. Ibid.
38. Argyris and Schön, *Organizational Learning: A Theory of Action Perspective,* 312–313.
39. Örtebland, "Learning, Double-Loop," 805.
40. Chatti, Jarke, and Schroeder, "Double-Loop Learning," 1035.
41. Ibid., 131.
42. Ibid., 158ff.
43. Omar Ashour, "Lions Tamed? An Inquiry into the Causes of De-Radicalization of Armed Islamist Movements: The Case of the Egyptian Islamic Group," *Middle East Journal* 61, no. 4 (Autumn 2007): 598.
44. Ibid., 609.
45. Ibid., 598.
46. Ibid., p. 613.
47. Ibid.
48. Christoph Schuck, "Peacebuilding through Militant Islamist Disengagement: Conclusions Drawn from the Case of Al-Gamaa al-Islamiyya in Egypt," *Peacebuilding* 4, no. 3 (2016): 352; see also Montasser Al-Zayyat, *The Road to Al-Qaeda: The Story of Bin Laden's Right-Hand Man* (London: Pluto Press, 2004), 71.
49. Sander Dekker and Dan Hansén, "Learning under Pressure: The Effects of Politicization on Organizational Learning in Public Bureaucracies," *Journal of Public Administration Research and Theory* 14, no. 2 (2004): 211–230; Lisa Wirz, Mario Bogdanov and Lars Schwabe, "Habits under Stress: Mechanistic Insights across Different Types of Learning," *Current Opinion in Behavioral Sciences* 20 (2018): 9–16.
50. Omar Ashour, "Lions Tamed? An Inquiry into the Causes of De-Radicalization of Armed Islamist Movements: The Case of the Egyptian Islamic Group," *Middle East Journal* 61, no. 4 (2007): 621.
51. Lisa Blaydes and Lawrence Rubin, "Ideological Reorientation and Counterterrorism: Confronting Militant Islam in Egypt," *Terrorism and Political Violence* 20, no. 4 (2008): 469.
52. Ibid., 470.
53. Ashour, "Lions Tamed," 618–619.
54. Audrey Kurth Cronin, *How Terrorism Ends: Understanding the Decline of Terrorist Campaigns* (Princeton, NJ: Princeton University Press, 2009), 142; see also Schuck, "Peacebuidling through Militant Islamist Disengagement," 352.
55. Ashour, "Lions Tamed," 598.
56. Ibid., 598.
57. See Paul Kalmolnick, "The Egyptian Islamic Group's Critique of Al-Qaeda's Interpretation of Jihad," *Perspectives on Terrorism* 7, no. 5 (October 2013): 94.

58. The following four books written by the Gamaa Islamiya in 2002 have been collected by the author during field research in Egypt. While they are written in Arabic, they were translated by the translation agency Tranzzlate (located in Bad Tölz, Germany; website: https://tranzzlate.de/) into English: Usamah Ibrahim Hafez and Asim Abd al-Magid Mohammed, *Mibadarat waf al-'unf: ru'ya wagi'iyya-wa-nazra shar'iyya* [An initiative for non-violence: A vision and reality – Sharia theory], Corrective Concepts Series (Cairo: Maktabat al-Turath al-Islami, 2002); Najih Ibrahim and Ali Al-Sharif, *Hurmat al-ghuluww fi al-din wa-takfir al-Muslimin wa-takfir al-Muslimin* [Prohibition of unreasonable excess in religion and excommunication of Muslims], Corrective Concepts Series (Cairo: Maktaba al-Turath al-Islami, 2002); Hamdi Abd-al-Rahman 'Abd al-Azim, Najih Ibrahim, and Ali Mohammad al-Sharif, *Taslit al-adwa 'alama waga' fi' al-jihad min akhta'* [Shedding light on errors committed in jihad], Corrective Concepts Series (Cairo: Maktaba al-Turath al-Islami, 2002); Mohammed Ali Sharif and Usamah Ibrahim Hafez, *Al Nash wal Tabyin fi Tashih Mafahim al Muhtasibin* [Advice and clarifications to correct the understanding of Muhtasibs (Those who enjoin good and forbid evil)], Corrective Concepts Series (Cairo: Maktaba al-Turath al-Islami, 2002). Among the other 16 books in the Corrective Concepts Series, the Gamaa Islamiya leader published two books on Al-Qaeda, the following one of which has also been translated by Tranzzlate and is also analyzed in this paper: Karam Zuhdi et al., *Istratijiyat wa Tafjirat al-Qa'ida: al-Akhta' wa al-Akhtar* [Al-Qaida's strategy and bombings: Errors and dangers], Corrective Concepts Series (Cairo: Maktaba al-Turath al-Islami, 2002). In the following endnotes the books are abbreviated with their English short title.
59. Kalmolnick, "The Egyptian Islamic Group's Critique of Al-Qaeda's Interpretation of Jihad," 94.
60. Ibid., 94.
61. Ashour, "Lions Tamed," 612.
62. Ibid., 614.
63. Ibid., 615.
64. Ibid., 616.
65. Ibid., 616.
66. Laura Mansfield, *His Own Words: A Translation of the Writings of Dr. Ayman Al Zawahiri* (USA: TLG Publication, 2006), 136.
67. Schuck, "Peacebuilding through Militant Islamist Disengagement," 290.
68. Ibid., 343.
69. 'Abd al-Azim, Ibrahim, and al-Sharif, *Shedding Light on Errors*, 112.
70. Ibid., 117.
71. Interview conducted during field research in Cairo in 2006.
72. 'Abd al-Azim, Ibrahim, and al-Sharif, *Shedding Light on Errors*, 3.
73. Hafez and al-Magid Mohammed, *An Initiative for Non-Violence*, 26.
74. 'Abd al-Azim, Ibrahim, and al-Sharif, *Shedding Light on Errors*, 16.
75. Ibid.
76. Zuhdi et. al, *Al-Qaida's Strategy and Bombings*, 316.
77. 'Abd al-Azim, Ibrahim, and al-Sharif, *Shedding Light on Errors*, 89–90.
78. Hafez and al-Magid Mohammed, *An Initiative for Non-Violence*, 60.
79. Ibid., 27.
80. Ibid., 49.
81. Ibrahim and Al-Sharif, *Prohibition of Unreasonable Excess in Religion,* 8–10.
82. Ibid., 20.
83. Ibid., 75.
84. 'Abd al-Azim, Ibrahim, and al-Sharif, *Shedding Light on Errors*, 60.
85. Ali Mohammed Ali Sharif and Osama Ibrahim Hafez, *Advice and Clarifications*, 133.
86. 'Abd al-Azim, Ibrahim, and al-Sharif, *Shedding Light on Errors*, 133.
87. Ibid., 63.
88. Ibid., 4.

89. Zuhdi et. al, *Al-Qaida's Strategy and Bombings*, 314.
90. Usamah Ibrahim Hafez and Asim Abd al-Magid Mohammed, *An Initiative for Non-Violence*, 35.
91. Zuhdi et. al, *Al-Qaida's Strategy and Bombings*, 83.
92. Ibid., 146.
93. Ibid., 147. The Gamaa leaders refer here to the jurisprudence expounded by Sheikh Al Islam Ibn Taymiyyah, a medieval Sunni Muslim theologian.
94. 'Abd al-Azim, Ibrahim, and al-Sharif, *Shedding Light on Errors*, 53.
95. Argyris and Schön, *Organizational Learning,* 60.
96. Ibid.
97. Ali Mohammed Ali Sharif and Osama Ibrahim Hafez, *Advice and Clarifications*, 5.
98. Ibid., 5.
99. Ibid., 6.
100. Ibid.
101. Ibid., 7.
102. Ibid.
103. Ibid.
104. Ibid., 10.
105. Ibid., 11.
106. Ibid., 13.
107. This refers to Al Qushayri (an Arab Muslim Scholar and theologian born in 986 CE); see Ali Mohammed Ali Sharif and Osama Ibrahim Hafez, *Advice and Clarifications*, 34.
108. Ibid., 35.
109. 'Abd al-Azim, Ibrahim, and al-Sharif, *Shedding Light on Errors*, 146.
110. Ibrahim and Al-Sharif, *Prohibition of Unreasonable Excess in Religion,* 171.
111. Zuhdi et. al, *Al-Qaida's Strategy and Bombings*, 16.
112. Ibid., 15.
113. Ibid., 181ff.
114. Ibid., 46.
115. Ibid., 52.
116. Ibid., 68.
117. Ibid., 65.
118. Ibid., 69.
119. Ibid.
120. Ibid., 76.
121. Ibid., 77ff.
122. Ibid., 84.
123. Ibid., 85.
124. Ibid., 93.
125. Ibid., 96.
126. Ibid., 142.
127. Ibid., 143.
128. Ibid., 54.
129. Argyris and Schön, *Organizational Learning,* 60.
130. Zuhdi et. al, *Al-Qaida's Strategy and Bombings*, 147.
131. Ibid.
132. The Gamaa leaders refer to a Hadith here, from "A Compendium of Fatwas" by Sheikh Al Islam Ibn Taymiyyah [58, 57/20]. See also Zuhdi et. al, *Al-Qaida's Strategy and Bombings*, 148.
133. Ibid., 148.
134. Ibid., 240.
135. Ibid., 254.
136. Ibid., 257ff.
137. Ibid., 264ff

138. Ibid., 273ff.
139. Ibid., 200-201.
140. Ibid., 202.
141. Ibid., 205.
142. Ibid., 341.
143. Ibid., 67.
144. Ibid., 29.
145. Ibid., 65.
146. Ibid., 84.
147. Argyris and Schön, *Organizational Learning,* 60.
148. Ibid.
149. Zuhdi et. al, *Al-Qaida's Strategy and Bombings*, 313.
150. Ibid.
151. Ewan Stein, "What Does the Gama'a Islamiyya Want Now?," *Middle East Report: RUNNING DRY* no. 254 (Spring 2010): 43.
152. Thomas Pany, "Luxor 2013: Ein Gouverneur von der Gamaa al-Islamija," *Heise Online (Telepolis)*, accessed October 26, 2018, https://www.heise.de/tp/news/Luxor-2013-Ein-Gouverneur-von-der-Gamaa-al-Islamija-2002629.html.
153. Abigail Hauslohner, "In Egypt, Gamaa Islamiya Goes from Terrorist Group to Security Force," *The Washington Post*, March 20, 2013, https://www.washingtonpost.com/world/middle_east/in-egypt-gamaa-islamiya-goes-from-terrorist-group-to-security-force/2013/03/20/bdf2a382-90be-11e2-bdea-e32ad90da239_story.html?noredirect=on&utm_term=.0c61200fc825 (accessed October 26, 2018).
154. George Mikhail, "Is Egypt's Gamaa Islamiya returning to political life?," *Al-Monitor*, May 10, 2017, https://www.al-monitor.com/pulse/originals/2017/05/egypt-gamaa-islamiya-return-political-brotherhood-regime.html (accessed October 26, 2018).
155. Cengiz Günay, "Ägypten: von der Revolution zur islamischen Demokratie?" (Österreichisches Institut für Internationale Politik, Vienna, 2012), https://nbn-resolving.org/urn:nbn:de:0168-ssoar-412459.
156. Ibid.
157. Christoph Schuck, "Zwischen gesellschaftlicher Re-Integration und Täuschungsmanövern: Gewaltverzichtsinitiativen militant-islamistischer Gruppen," *Zeitschrift für Außen- und Sicherheitspolitik* 9, no. 3 (2016), doi:10.1007/s12399-016-0576-y.
158. Zuhdi et. al, *Al-Qaida's Strategy and Bombings*, 341.
159. Starbuck and Hedberg, "How Organizations Learn from Success and Failure," 1.

## Disclosure statement