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Milgram's Lost Gandhi: Whither Gandhi's Wisdom of Nonviolence in the Psychology of Wisdom

V. K. Kool and Rita Agrawal

Would you agree to deliver shocks to another human being for making mistakes while learning some very simple material? Generally speaking, we would say that it would be crazy to give shocks for the above, but you will be surprised that such cruel behavior was displayed consistently by participants in many experiments conducted around the globe. Through his pioneering research work, Stanley Milgram (1974), demonstrated, empirically, in his laboratory how ordinary human beings could be goaded into accepting his request to deliver electric shocks to an "erring learner" for a simple task. Further, it becomes even more difficult to believe that a substantial number of these participants continued to deliver shocks, at even lethal levels.

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V. K. Kool and R. Agrawal (eds.), *Gandhi's Wisdom*,
https://doi.org/10.1007/978-3-030-87491-9_2

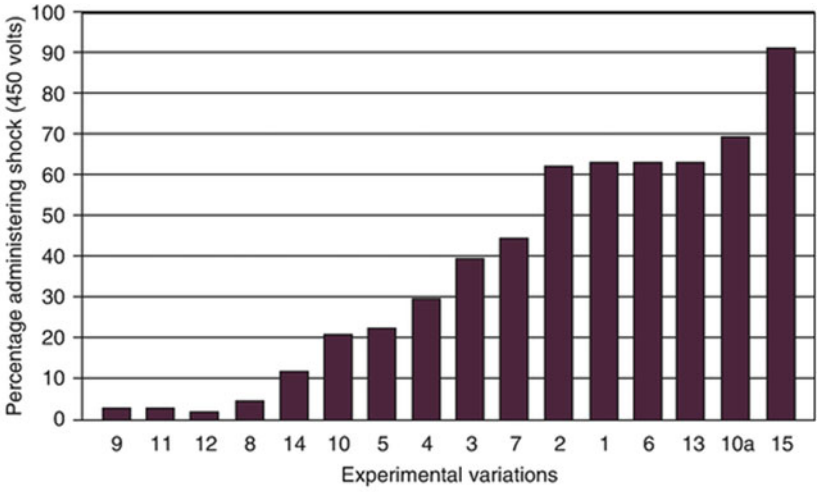
While Milgram's experiments have been successfully replicated in many research laboratories around the globe, exhibiting consistent results since it was extensively reported in the early 1970s, a number of explanations have been offered for such human vulnerability (for example, Burger, 2009; Dolinski et al., 2017; Russell, 2011). The amount of curiosity generated was so pervasive that the official journal of the American Psychological Association, the *American Psychologist*, dedicated its entire volume to Milgram's experiment in 2008, almost 40 years after the original experiments.

While Milgram and fellow psychologists remained profoundly busy in searching for the causes of such obedient human behavior (irrational but also unethical to the extent that the replication of this experiment is now banned), there were hardly any attempts to study the behavior of those invited participants of Milgram's study who simply refused to give any shock to the learner, who defied the instructions of Milgram, and, walked away from his laboratory. Many other replications of Milgram's work have also corroborated the above, the common denominator in all such experiments being that the number of disobeying subjects was very insignificant, being less than 2%, as reported, initially, by Milgram.

Milgram and later researchers continued to ignore their disobedient nonviolent participants. The reason for this neglect could be the insignificant quantum of knowledge regarding nonviolence in the domain of psychology. It must also be kept in mind that for years together, divergent thinking of any type has failed to receive a level playing field in mainstream American psychology, especially, in the presence of the APA Division of Military Psychology.

In contrast to the prevailing neglect of the disobeying subjects, Kool attempted to analyze the reason for such disobedience. In his researches in the 1980s and the 1990s Kool (Kool, 1990; 1993; Kool & Sen, 1984) noticed that those subjects who scored high on his test of nonviolence (the NVT), were more likely to refuse to participate in the experiment or tended to deliver significantly lower levels of shocks than those who scored low on the NVT (see Kool & Agrawal, 2020; Sen, 1993).

In a recent analysis published by us (Kool & Agrawal, 2020), it has been demonstrated that in at least four variant conditions of Milgram's



S. No	Experimental variations	S. No	Experimental variations
9.	Learner demands to be shocked	3.	Proximity
11.	Authority as victim—an ordinary man commanding	7.	Institutional context
12.	Two authorities—contradictory commands	2.	Voice feedback
8.	Subjects free to choose shock level	1.	Remote victim
14.	Two peers rebel	6.	Women as subjects
10.	An ordinary man gives orders	13.	Two authorities—one as victim
5.	Remote authority	10a.	The subject as bystander
4.	Touch proximity	15.	A peer administers shocks

Fig. 2.1 Some facts and traces of psychology of nonviolence in Milgram's study (Kool & Agrawal, 2020)

study, there were clear indications of escalation of disobedience, or, in other words, nonviolence, as illustrated in Fig. 2.1, with a fewer number of subjects delivering shocks. Probably, it is results such as these that made Jacob Appel (2019) argue that, instead of calling Milgram's study

a study of obedience, it could well be called a study of disobedience (Box 2.1).

Box 2.1 Rethinking the infamous Milgram experiment in authoritarian times by Jacob M. Appel, M.D. J.D., Icahn School of Medicine at Mount Sinai, NY (*Source* Appel, 2019, scientificamerican.com)

"Some of Milgram's subjects did defy the experimenter. Like Jan Rensaleer, a Dutch immigrant who responded to the experiment's warning that he had no other choice to continue at 255 volts with the following memorable declaration:

> I do have a choice. Why don't I have a choice? I came here on my own free will. I thought I could help in a research project. But if I have to hurt somebody to do that, or if I was in his place, too, I wouldn't stay there. I can't continue. I'm very sorry. I think I've gone too far already, probably.

In some cases, the subject stood up during the experiment and walked away.

So maybe it is a mistake to view Milgram's work as an "obedience experiment"—although, he clearly did. Maybe, what he actually conducted was a disobedience experiment, showing that some people will not follow orders no matter how strong the social pressure.

They are out there, waiting the moment when history calls upon them to disobey. We should not lose sight of them in the weeds of social psychology. They are Stanley Milgram's unheralded legacy—and we may even stand among them."

For the purpose of clarity, let us now look at the first four experimental variations in which there were a fewer number of people who were ready to administer 450-V shocks, starting with the variation # 9, in which there were the least number of subjects (refer to Fig. 2.1).

1.# 9. Learner demands to be shocked (Compare it with Gandhi and his followers inviting violence from their adversaries in their satyagraha movement)
2.# 11. Authority as victim, an ordinary man commanding

3.# 12. When two authorities offer contradictory commands
4.# 8. Subjects free to choose shock level

Looking at Fig. 2.1 in this way, one finds that as conditions changed, the number of subjects, who were ready to administer high levels of shock, declined considerably, with compliance levels dropping to less than 10%. This data provides, in the process, interesting insights regarding ways of reducing aggression. Unfortunately, Milgram had not paid much heed to this aspect, preoccupied as he was, with the investigation of the dynamics of obedience to authority in terms of aggressive behavior. However, we see exciting possibilities in this part of Milgram's data and take this opportunity to extend this monumental research on the psychology of aggression to understand more about nonviolence (from Kool & Agrawal [2020]: *Gandhi and the Psychology of Nonviolence, volume 1*).

It seems that psychology at the time of Milgram, and even today, has failed to latch on to the momentum of nonviolence and embrace its wisdom.

We argue, here, with the support of additional scenarios in psychology and illustrate, why this discipline remained apathetic to the study of the human tendency to survive and flourish. Kool (2008) examined the studies of Solomon Asch, in which one dissenting observer changed the decisions of other conforming participants in judging, falsely, the size of lines, and those by Philip Zimbardo on prison guards who could not take the pressures and walked away, in the context of the psychology of nonviolence. It is, also, known that Henry David Thoreau and Gandhi were, then, considered insignificant rebels who were neither popular in the mainstream of their psycho-historical times nor rated wise as they are regarded today.

As a consequence, psychology started losing its momentum: by not attending to the behavior of people such as Henry David Thoreau and Mohandas Karamchand Gandhi—but in contrast, studying Adolph Hitler's psychological profile prepared promptly during WW II at the famous Harvard Clinic. It is, indeed, unfortunate that Gandhi, at any time or anywhere, was never evaluated. For psychology, it was considered wise to study the context of genocide, but rarely so, if any, in seeking justice and freedom for citizens across continents. As a consequence,

whereas other social sciences were advancing in the company of those who sought peace and nonviolence, for example, through the monumental works of Galtung, Sharp, Boulding and several others, psychology was still battling to bring cognition, its mainstay, to the forefront and struggling for survival as a science.

Gandhi and William James' Moral Equivalent of War

William James is generally regarded as the father of modern psychology. Besides his contribution toward laying the foundation of modern psychology as an independent science, distinguishing between primary and secondary memory (which is still regarded as a classical finding), analyzing habits as our fly wheels, and exploring religion and related issues of consciousness, he is also very well known across academic disciplines for his classical essay on the moral equivalent of war (James, 1910). There is nothing more important than our own survival, argued William James, and continuously attempted to enlarge our moral compass through the repertoire of virtues. As we state in this chapter and in the previous chapter, the discipline of psychology failed to take a leaf from the wisdom offered by its own mentor. In contrast, in his lesser known book, *Talks to Teachers* (James, 1899), James describes how he was intrigued by the knowledge and behavior of students from the Eastern countries, whom he happened to meet during his visit to the UK.

The study of wisdom begins with the laying of the bricks of our experiences on the solid foundation of human existence and by treating all things sentient in our universe as our own garden, as put by Noble Laureate Paul Crutzen, or as what Gandhi called Vasudaiva Kutumbakam (the universe is our family). But, the ways through which our experiences relate to each other so as to function at a higher order was neither given any attention in Western Psychology until the last quarter of the previous century nor was James considered significant in building a psychology of cognition. In fact, veteran scholar Skinner's behaviorism had such a strong influence in the domain of psychology that cognition remained on the back seat for the major part of the previous century.

Around the same time as when James was teaching at Harvard University and was permitting Edward Thorndike to experiment with rats in his home laboratory, Gandhi, in his own way, was laying the foundations of modern psychology. Gandhi's sprawling laboratory covered at least three continents of the globe—Africa, Asia, and Europe, and there he learned, practiced, and demonstrated the efficacy of several psychological concepts, much like veteran psychologist Ebbinghaus, who searched in and researched on his own memory, establishing the nature and laws governing the associations forming in his brain. Gandhi championed several psychological concepts in nuanced forms such as moral inclusion (by integrating various communities for seeking justice), self control (by demonstrating nonviolently and without retaliation to oppression), self efficacy (by sustained efforts to believe in ourselves), empathy (to the extent of loving our own adversary), and more, leading to the expansion of human cognition.

We have presented a plethora of evidence (Kool & Agrawal, 2020) to clarify how Gandhi, inveterately, illustrated many modern psychological theories and concepts of cognitive psychology, for example, those used by Nobel Laureate Kahneman (Kahneman & Tversky, 1979) in his prospect theory; behavioral economist Nobel Laureate Thaler (Thaler & Sunstein, 2008) in conceptualizing nudging and boosting; intrinsic motivation and the neuro-social psychology of self control. There is no book of modern psychology that does not refer to the concepts we have presented here. Unfortunately, while they form the distinguishing features of Gandhi's nonviolence, they rarely find recognition and detailed analysis, leave alone appreciation, in the science of psychology, even though, they form the mainstay of our cognition and wisdom.

It is our considered opinion that by promoting Hitler's psychological profile and neglecting Gandhi, psychology lost its wisdom, in as much as its similarity to Milgram's neglect of disobedient participants, unwilling to deliver shocks to their fellow human beings.

Wisdom is not about cutting and pasting a piece of human knowledge acquired in the laboratory. Rather, it epitomizes collective and configured human experiences, in the ways in which Gandhi based them on the solid foundation of his life and experiments with truth. In fact, in our book, consisting of two volumes on *Gandhi and the psychology of*

nonviolence (Kool & Agrawal, 2020), we have shown that there is hardly any subfield of psychology, from educational to community psychology, or relatively newer fields such as psychology of technology and environment, that have not been enriched by the application of Gandhi's conceptualization of human behavior. And, we wonder how psychology, a science of behavior, found him good for references only, as had been done by luminaries of psychology such as Skinner, Bandura, and others, but rarely, if any, attempted to establish him as an unquestioned father of modern psychology emerging in the Eastern part of the globe.

However, there is one notable exception, Erikson (1969), who wrote in his Pulitzer award winning book, *Gandhi's Truth*,

> …I sensed an affinity between Gandhi's truth and the insights of modern psychology (p. 440),

albeit, his widely popular book was presented in the psychoanalytic perspective. Upon reading this book multiple times, we learned how deeply Erikson engaged himself to the understanding of Gandhi. The book reveals how Gandhi's moral and ethical perspectives were blended with the caring and justice considerations such that he was able to resolve his follower's identity struggle in a violent world, yet, stayed strong as a rock to exercise nonviolence and demonstrate wisdom, in the context of what Gandhi called, his experiments with truth.

Whereas, we acknowledge that great researches emanate from sophisticated establishments and laboratories, there is considerable to be learned from outside their walls and by integrating, sensibly and prudently, the available segment of such knowledge. Here, the remarks of Arnett (2008) are useful, stated so succinctly, yet, categorically, that there is a serious problem with the leadership of American psychology as it tends to ignore roughly 95% of global human behavior in its academic pursuits and related publications.

Both Gandhi and James, in their own ways, advocated the human need for survival and preached the significance of nonviolence, James through his writings on war against war and Gandhi through his activism. Both were thinkers of the human mind and deserve to be called

the founding fathers of modern psychology, one in the West and the other in the East.

There is enough reason to argue for their common cardinal goal in unraveling the dynamics of the human mind. What is good about a science that leads to destruction but offers no wisdom for its management?

We take pride in our technological achievements, housing developments, and broadly speaking, consider ourselves modern and sophisticated, but do we think about the new habits that are emerging and creating gaps between us and nature, among human beings, and in retaining our cultural heritage that has brought us to cherish our current existence after surviving thousands of years of struggle? Our fly wheels, known as habits, need rebooting with all the bugs being fixed through our wisdom, in the context of the emerging noosphere in the changing world. Call it collective wisdom, cultural wisdom, or anything, wisdom will remain wisdom, not out there but residing within us, and only, thereafter, can we nomenclature it, societal, personal, or both. Recently, in a similar tone, Nagler (2020) echoes it in the form of the third harmony mentioned elsewhere in this book.

We believe that for both Gandhi and James, nonviolence was the lever which could provide a jump start to any psychology—Western or Eastern, experimental, or non experimental, though, certainly, not one which is not tested and experienced within ourselves. They guided and illuminated us and suffused us with immense wisdom for the establishment of a new enterprise of human knowledge, known as psychology, and suggested that through its inspired and ingrained use, we can link our wisdom to war against war or to experimenting with truth. French scholar Bruno Latour's (1993, 2013) question, "are we really modern", points to the complex ways through which the layers of our wisdom are earned through membership in the culture around us.

Nonviolence as Wisdom

Let us begin with the following two scenarios (Kool, 2008). First, is it wisdom to use violence when an issue can be resolved through nonviolent methods? The answer is simple: no rational human being would use violent methods to solve a problem if it could be resolved peacefully.

In contrast, the answer to the second question is not that simple: is it wisdom to use nonviolence when it is failing (or likely to fail) to resolve a conflict?

According to Gandhi, violence can never be wiped out from this world (Iyer, 1983), but at the same time he argued, is it not wisdom to try to avoid violence, because he firmly believed that an eye for an eye would make the entire world blind? To prepare an answer to the second question, Gandhi advocated focusing on just and fair means and, at the same time, beginning to learn how to detach ourselves from the ends. This is significant because it is only then that we will be able to keep our emotional equipoise and not get swayed by temptations to reach our goals. For Gandhi, following nonviolence is the cardinal means to achieve an end and affords an opportunity for navigating through life with wisdom.

Gandhi's Understanding of Human Cognition

Gandhi was very particular about scripting and creating schemas of nonviolence. These two psychological features have great relevance for our cognitive functions and are considered, relatively, newer entries to our understanding of human cognition. Schemas are mental plans with scripts feeding its elaboration. Gandhi, as an applied psychologist, understood the importance of schemas for booting our cognition, just as we do not expect to be asked about seating in a fast food restaurant, but will do so in a formal restaurant. Gandhi trained his freedom fighters to remain resolutely nonviolent even in the face of immense adversity and to not lose focus on the nonviolent means. For developing such an ability to focus on nonviolent means and for keeping the schema of the freedom fighters firm, Gandhi and his followers were powered by their

reengineered cognition enabling them to face, any or all, the unexpected forms of aggression displayed by the adversary and, yet, keeping their own heads high.

Our ability to elicit schemas of nonviolence needs patience. With the passage of time, the nonviolent schema grows stronger, affording us time to evaluate options and leading to the emergence of sublimated responses from the oppressor. In the context of nonviolence, the chances of nurturing wisdom among both the aggressor and the victim for resolving a conflict are far greater than in the case of violence which is often swift and sudden and escalates fast, without allowing other virtues to elicit any alternate schema. When Gandhi professed that the practice of nonviolence is difficult and that in more incidents than one, we tend to choose violence over nonviolence, he probably understood, implicitly, the complex ways in which human cognition operates, making him comment that,

> We are helpless mortals caught in the conflagration of himsa (himsa means violence). (Gandhi, 1927, pp. 427–428)

It was only at the turn of the twentieth century that noted cognitive scientist and Nobel Laureate Daniel Kahneman put forth his theory regarding two systems of thinking, one fast and used more often, helping us to deal with exigencies, and, the other much slower, allowing us time to think rationally (Kahneman, 2011, *Thinking Fast and Slow*). The faster System I forces us to retaliate at the spur of the moment, but if we allow our rationality to take over, decisions are slower, but far-reaching, bringing in its wake the true resolution of the problem and satisfaction for all stake-holders (Kool, 2008; Kool & Agrawal, 2020).

Returning back to the two groups of Milgram's subjects, namely, those who accepted instructions to deliver shocks versus those who declined and walked away from his laboratory, Table 2.1 shows the usefulness of the prospect theory of Kahneman in the context of Gandhi and the psychology of nonviolence.

In the processing of information, if a person fails to focus on the relationship between means and ends, the behavior of the participating subjects in the experiment seems to be restricted to System 1 level

Table 2.1 Milgram's lost Gandhi and Kahneman's System 1 and 2

FOCUS GIVEN BY PARTICIPANTS	INSTRUCTIONS TO DELIVER SHOCKS	
	Punishment	No punishment
Willingness to participate	Accepted[a]	Rejected
Means used for research (deliver shocks)	Accepted[a]	Rejected
Purpose of study served	Accepted[a]	Rejected
VIEWING THE MORAL TRAJECTORY OF THE EXPERIMENT		
Affording *justice* to the learner	No	Yes
Affording *caring* to the learner	No	Yes

[a]Participants in the Milgram experiment were operating at the System 1 level

thinking. On the other hand, those subjects who refused to deliver shocks were operating at System 2 level thinking, for they were less concerned about the ostensible purpose of some research at the prestigious Yale University, but more with the means of treating the learner in the experiment with electric shocks. To them, such means do not justify the ends, a principle that Gandhi always insisted upon in his experiments with truth.

Were those Milgram's subjects who delivered shocks less than human? From Fig. 2.1 it is abundantly clear that they were not so because as Milgram changed the conditions of the experiment, for example, when there was another participant refusing to deliver shocks, they, also, reduced their aggression. In short, while all human beings are equipped with a sense of justice and caring for others, Milgram's experiment is a challenge posed to the participants to tap and regulate the psychological capital of nonviolence coexisting with their proneness to deliver shocks for reaching a goal without focusing on the means being used for the purpose. Therefore, we agree with Appel (2019) that Milgram's experiment could well be viewed as an experiment on disobedience.

Box 2.2 The "why" of obedience to immoral orders: Revelations from studies of brain function

When Milgram started his famous obedience to authority experiments, most people insisted that they would never administer electric shocks to innocent people. However, when actually placed in the experimental scenario, a large number of subjects did administer the shocks, even to, supposedly, lethal levels. The question which arose was "why did these people obey?" Various explanations had been offered by Milgram himself, but the curiosity continues to date, forcing psychologists and others to attempt to find answers for this seeming mystery.

More recently, attempts have been made to study the brain processes behind obedience/disobedience through the use of ERPs (Event Related Potentials). One such very innovative study (Fabre et al., 2021) placed subjects in a scenario in which they were told that they were UAV operators and that their defective drone was about to crash. They had the option of either allowing it to land on a military site which would cause the damage of a large amount of material but with no human deaths or to land it on a civilian site which would cause death of a large number of civilians. The subjects were placed in either of two conditions, the command condition or the no-command condition.

"While in the no-command condition, participants decided according to their own preferences, in the command condition they were ordered to protect the military material at the expense of civilians for undisclosed strategic reasons. The results revealed that in the no-command condition participants almost always crashed the drone on the military site (96%), whereas in the command condition they chose to obey orders and sacrifice civilians to protect the military material 33% of the time. In the command condition, participants were longer to make their decisions, mobilizing greater attentional and cognitive resources (i.e., greater P300 responses) to resolve the conflict between their internal moral values and the orders they were given (i.e., greater N200 responses) than in the no-command condition, where they automatically applied the 'you shall not kill' rule. Participants also showed a greater negative affective response (i.e., greater P260 amplitudes) after choosing to disobey than to obey orders. This result suggests that disobeying authority could be perceived as a greater moral violation than obeying and sacrificing civilians, suggesting that individuals may sometimes choose to obey

malevolent authority to avoid the negative affective reaction triggered by disobedience" (Fabre et al., 2021, p. 2).

The authors of the study explain the above results in terms of the two systems of thinking forwarded by Kahneman (2011), to reveal that conflict created by moral dilemmas take greater attentional resources and more time, because they bring into play System II thinking which is rational but also slower. This could well explain the behavior of the German soldiers during the Holocaust, and, that of many other people who simply obey unjust or immoral orders because of the greater latency and negative affect produced through disobedience. It would also explain the large number of people who were ready to obey Milgram's orders, unjust though they were. But then, there were those who disobeyed, small though their numbers were.

Can we use the findings presented in Box 2.2 to explain the behavior of people in South Africa, who continued to obey unjust laws? It was probably easier, both cognitively and emotionally, to obey such laws than trying to disobey them. Yet, when Gandhi was told to leave the first class compartment of the train, despite having a ticket for the same, he refused. What ensued is known to all: he had to be literally thrown out of the compartment at the Pietermaritzburg station, because he refused to obey unjust orders.

This was Gandhi's first incidence of disobedience, to be followed by many more, both at the personal level and by his followers. The ways through which he could get thousands of people to disobey is ample evidence of Gandhi's wisdom, and, his ability to understand the human psyche. He realized that while human beings generally believe in the "you shall not kill" principle, they tend to act violently, retaliating to every blow with another blow. The task faced by him was to show the world that the opponent can be won over without blows and bullets by following the path of nonviolence (ahimsa) which was the ultimate truth (satya).

Through his experiments with truth on himself and others, he perfected a methodology (namely, satyagraha) making it easier for people to disobey authority and unjust laws propounded by the British, both in

South Africa and in India. Almost half a century before Kahneman and other cognitive psychologists, he preempted several forms of behavior (such as vows) which reduced the cognitive and emotional burden of disobedience. By careful priming of schemas and scripts for nonviolence, he reduced the amount of scarce attentional resources being used (in a way, shifting people from the slow System II thinking to the almost automatic System I thinking). Further, by creating an alignment between the "you shall not kill" instinct and the orders being given by Gandhi to stick to nonviolence, no matter how great the instigation to do otherwise, he was able to reduce any conflict in the minds of his satyagraha followers. In other words, Gandhi attempted to make nonviolence the automatic or default mode of thinking. That he succeeded in doing so is well evidenced by the success of his satyagrahas and the ways through which he was able to convince the British to repeal unjust laws.

We add, further, that Milgram's unsung Gandhian subjects have considerable to offer to modern psychology, opening new vistas of research in the psychology of nonviolence, and broadening the interdisciplinary impact of psychology as in explaining the behavior of over one billion people engaged in activism around the globe (*Time,* Stengel, 2011). As Bilgrami (2003, 2020) of Columbia University argues, with the prefix non in nonviolence, there are no opposites involved and thereby, makes its study robust and meaningful. We contend, here, that Gandhi sought to present cognition not as a response to a conditional context, but as an element of consciousness unhinged from the desirabilities around us, in contrast to Milgram's subjects who succumbed to his goading for delivering shocks to the innocent learners. Whether you take Milgram's subjects or Kahneman's prospect theory of cognition, there is so much to learn from Gandhi for understanding cognition and for developing the science of human behavior.

Gandhi's Understanding of Human Motivation

But, first things first: Gandhi, always, insisted that every participant listen to his or her inner voice before joining his movement. Essentially,

he was referring to their intrinsic motivation, a very useful psychological concept with wide applications across all subfields of psychology, ranging from industrial psychology to environmental psychology, and more. In short, Gandhi was a master technician of the mind and, thereby, enriched the science of psychology by expanding and demonstrating in the real world, two key areas considered to be the sine qua non of human behavior—cognition and motivation.

Gandhi's life and work also helps to explain the diffidence shown by some subjects in Milgram's experiment. Wisdom without action, as popularly stated in Buddhism, is like wearing a fetter but claiming to be free. Conceiving wisdom appears question-begging and highly constricting in the context of the purely utilitarian criterion of its measurement, as psychologists often tend to engage in, with rare exceptions such as the analysis offered by Erik Erikson.

In expressing his wisdom, Gandhi was not like a clergy, not even like a saint who, unlike a clergy, can look beyond advocating and reinterpreting scriptures in the context of changing times. Gandhi acted more like a hermit, combining the wisdom of the serpent with that of a dove (Iyer, 1983). He invited us to examine wisdom in the light of our mental world which is capable of transcending to all things sentient in nature and to, thereby, create Vasudaiva Kutumbakam. For him, service to humanity is the direct corollary of wisdom and can be experienced only through our action.

Following the tradition of philosophers like Hume and Adam Smith, our moral values and sentiments are understood, and supposedly derived, from the states of mind. However, what if we consider them, instead, as responses to the values around us and pose a challenge to the natural scientist by asking, for instance, are values valuations? Are not desires, asks Bilgrami (2003), themselves responses to desirabilities that we perceive around us? In this sense, argues Bilgrami, we might be able to better understand well being versus poverty, kindness versus cruelty, or in the context of wisdom, maximizing survival through this apex form of our thinking and behavior. It is imperative for the growth of modern psychology to widen its compass and Gandhi's wisdom is one such trajectory to be comprehended from the lens of our "experiments with truth" during the course of our lives.

Iyer, a noted Indian scholar on the life and philosophy of Gandhi and who had, also, taught in the USA, stated categorically, that while it would be difficult for Western intellectuals to comprehend Gandhi in the above context, Gandhi was, truly, a genuine thinker, challenging us to test our wisdom through experiments with truth on ourselves and on the rest of the world.

In the psychological conceptualization of nonviolence, as offered by Kool (2008), wisdom can be construed in terms of minimizing aggression, opening vistas of moral concerns both theoretically and practically, and integrating our actions with the experience of power with people. In terms of our analysis of Gandhi and nonviolence, it is clear that when these moral concerns are coupled with internal locus of control (what Gandhi termed "inner voice"), we witness nonviolence at its zenith, with justice and care orientations existing side by side with the ability for self blame and the resoluteness of the nonviolent means being used (for details, see Kool & Agrawal, 2020). In Fig. 2.2, the blue oval at the lower right hand corner of the cuboid shows the location of the wise person.

In other words,

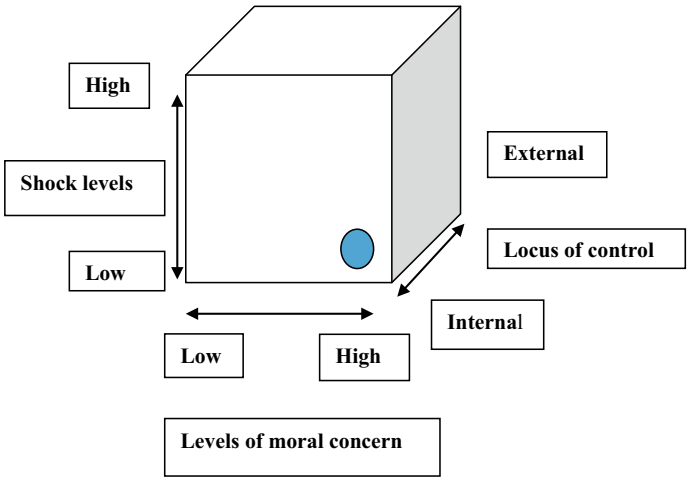


Fig. 2.2 The three dimensional model (Kool, 2008) in terms of obedience/disobedience (from Kool & Agrawal, 2020)

- High moral concerns + Internal Locus of Control (LOC) + Low obedience = conscious objector = nonviolent protester, much like the Milgram's disobedient subjects
- Low moral concerns + External LOC + High obedience = violent person, such as those who obeyed Milgram's orders

Is this not a manifestation of the ripening of wisdom, allowing the person to cognize nonviolence and to be motivated to stick to nonviolent means, no matter what the level of external provocation? In the words of the Mahatma,

> A votary of ahimsa, therefore, remains true to his faith if the spring of all his actions is compassion, if he shuns to the best of his ability, the destruction of the tiniest creature, tries to save it, and thus incessantly strives to be free from the deadly coil of himsa. (Gandhi, 1927, pp. 427–428)

This compassion is rooted in the moral concern for the other, while the steadfastness of purpose can become possible through an internal locus of control (the "inner voice"). Is this not evidence that Gandhi, through his emphasis on the "inner voice," preempted the concept of locus of control brought to the forefront of psychological research many decades later?

When legendary psychologist Skinner (1987) wrote his well known essay, *What is wrong with the Western society,* he was convinced that the management of reinforcements would induce the development of an ideal community. But in reality, his community, based on the tacit concepts of his own theory, could not last for long for several reasons, including the issues of the identity of those who opted to join his community based on reinforcements. Erikson (1969) was so correct in stating that identity without affiliation has no meaning. And, this affiliation must be deeply rooted in our culture and traditions and ready to jump start our schemas and harmonize our dedication to and faith in the nonviolent means. Gandhi did not merely visualize nonviolence as wisdom, but tested it continuously to seek its efficacy in community

work, and aligned it with his personal goals to test his own psychological capital.

In order to understand how Gandhi built his psychological capital, we need to closely examine and explore how he developed some nuanced forms of his own behavior through vows, fasting, silence and more in forging the unity of core psychological components of cognition, motivation, and emotion, a major issue in the current research on wisdom in psychology. In his seminal work, Kris Kirby (2013) has analyzed how vows helped Gandhi in the maintenance of his self control. After promising his mother to remain a vegetarian, Gandhi often vacillated when tempted by a nonvegetarian meal placed in front of him while he was a student in England. Using the delay discounting theory of Ainslie, Kirby has shown how the window of vulnerability at point c in the graph could be handled with the bundling effects of vows in the long term reward (l) as compared to a temporary reward at the short term (s) level. Instead of having to choose between s and l on a daily basis, vows help us to decide once and for all the bundling effect of summative values that we create around us. We believe that such seminal research highlights the genuineness of Gandhi's wisdom and stands as an exemplar to address the dilemmas in understanding the relationship between cognition, motivation and emotion in modern psychology. We had invited Kris Kirby to write about the implications of his research and his response is reproduced in Box 2.3 and illustrated in Fig. 2.3.

Box 2.3 Gandhi's vows as an anticipated solution to modern psychology

In his personal communication (April 26, 2021) to us, Kris Kirby, PhD (Harvard) and Professor of Cognitive Psychology at Williams College, USA, wrote:

> The central problem in the psychology of self-control is that temptations offer tangible, immediate rewards, whereas the rewards of self-control are more diffuse and long term. Consequently, we are least motivated to exercise self-control

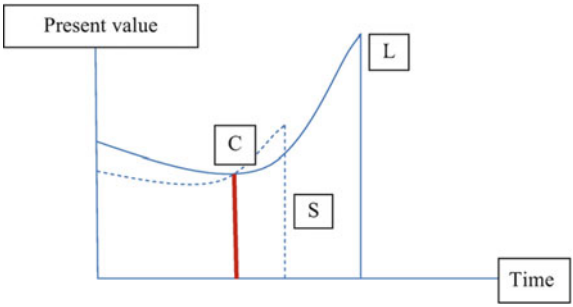


Fig. 2.3 How vows guard us against temptation (adapted from Kirby, 2013)

at precisely those moments when we most need it. In his practice and writings on the use of vows, Gandhi anticipated modern psychology's solution to this problem: private vows (vrata, or sacred promises made to oneself) can 'bundle' together many future choices—each fraught with temptation—into a single choice, the choice to make and keep the vow. Moreover, the making and keeping of vows can be motivated by higher goals than merely enhancing rewards. For Gandhi, self- control, and the vows one takes to achieve it, is dharma, and thus, an end in itself. 'God is the very image of the vow... We should, therefore, never doubt the necessity of vows for the purpose of self-purification and self-realization' (Letter to Naraindas Gandhi, 14 Oct 1930). Whether about small matters like not eating sweets, or large matters like ahimsa, Gandhi saw keeping vows as a sacred duty, not only for one's own benefit, but for the common good of humanity through one's exemplary effect on others.

Nonviolence as a Science and Precursor of Wisdom

At a conference organized by Kool in Wisconsin (1988), a young scholar from the University of California, Berkeley, Michael Nagler surprised the audience by stating that the laws of nonviolence could be postulated and that we must investigate them for enhancing the quality of our survival. He stated,

> But nonviolence is a science. It has precise rules, and we have to learn them, even though some of them tell us we have to think and feel and love differently, which is very hard. (Nagler, 1990, p. 138)

Nagler, further, contended that Gandhi could be best exemplified in his ability to

> conceptualizing nonviolence as a non-something to a something but from a something to the basis of everything. (ibid., p. 138)

Gandhi's initiative to alter the consciousness of millions of people symbolizes the rare cognitive revolution unseen and unheard of in recent history. As a dedicated follower of Gandhi's life and work, Nagler (2020) has discussed his ideas in a recent book, *The Third Harmony: Nonviolence and the New Story of Human Nature*, containing ideas well supported by scientific research on quantum physics and brain science.

Basically, as the product of evolution we define our organic existence along with the natural forces that sustain and nurture us. By creating a parallel evolution through technology, as in cloning, the organic human body finds a symbiosis with those unfamiliar "biotech" compatible elements, supposedly implanted to enhance our survival. We, then, marvel at our creativity in the unprecedented broadening and deepening of our knowledge in many sciences, and take pride in our degrees and credentials attesting our competencies.

But, did any of those renowned institutions offer us a degree in human wisdom to address the problems posed by our so called "material growth" leading to our imbalanced equipoise? For Gandhi, the roots of wisdom lie in the primary institution known as family, a place for the child's initial education (as he postulated in Buniyadi talim), and continue in the community. Through these important socializing agencies, the child has continued exposure to what Erikson describes as generativity. In other words, Gandhi was appreciating the true influence of our culture in its noblest form. Deficits in the above lead to the inability to solve many of the inherent problems and such deficits could well be the reason for why artificially designed communities, such as those of Skinner, failed.

A zombie needs a repertoire of experiences for its interaction unless it is—as in the case of Artificial Intelligence—controlled from somewhere or through an artifact. Outsourcing our human cognition has its own risks, with several brilliant scholars such as Kurzweil (2005), widely and openly, expressing their concerns over the kind of social order that is emerging in the face of technological growth. According to the National Science Foundation (Rocco & Bainbridge, 2002), it is not possible to predict the impact of technology beyond 20 years, and our own life time provides ample attestations for the above. Had you ever imagined that a power point presentation would provide you such ease as going to the classroom without priming the schemas of your lecture? For more information on technology related issues, please refer to our chapter, "Turing Testing and Gandhi's Wisdom in the Era of Cognitive Computing" (Chapter 10 in this book).

We argue that any restructuring of cognition will have consequences for living with the wisdom we cognize, and for deploying it in the new social order. For Gandhi, if we follow nonviolence as a means for seeking truth, our acquired wisdom will never fail. With nonviolence at the core of our cognition, we will always find ourselves in the driver's seat, managing the direction and speed of our activities in conjunction with, or independent of, the two evolutions we are wrestling with, namely, the biological and the technological. Nagler is so correct in concluding that Gandhi "thought and functioned precisely as a scientist" (ibid), and even argued that his approach to nonviolence is tougher than the laws of physics.

In fact, our contemporary cognition is at the cusp of being hijacked. We rarely need to remember telephone numbers any more, finding them instantly on our mobile phones. Are we ready to mortgage our wisdom, too, or for convenience, put a moratorium on it, like many politicians do for their self interests? Authentic wisdom, then, would remain totally illusive.

In Gandhi's authentic wisdom, there is a clear invitation for bridging the gap between our thinking, feeling, and action so as to view our existence in the company of everything sentient in nature and of finding ways of enhancing our well being. Before closing this chapter, we invite readers to test the limits of their wisdom in the following context. Think

of a two-year-old baby, sitting in a cart and moving along with her mother in a grocery store, hitting you, much as a number of toddlers do, simply to spark excitement. What would you do? We guess that you will share her joy and fun. However, supposing you find someone 6, 8, 10 16, 25 or 40 years old, engaging in the same kind of behavior? Our guess is that you would respond as per the context, depending on the age of the person.

Surprisingly, such a schema can be reengineered, as demonstrated by Bonta (1993) in his study of nonviolent cultures and witnessed personally by Kool in a remote village, Malana, deep in the Himalayas (Kool & Agrawal, 2020; Piazza & Dote, 2013). Both found that nonviolent cultures emphatically teach their young ones to avoid violence and, unlike other mainstream communities of our modern world, let their kids know that they are not special in comparison to those of others around them. Their "us-them" boundary is mitigated and othering, as a natural human response, is unothered with the initiation of the child into the community. In Gandhi's carving of human cognition, such wisdom glows in all forms of behavior, including those identified as being adverse. Cultivating mutualism in the face of acute adversarialism is wisdom at its best and nonviolence affords a means for fostering it.

Like emotions, wisdom is relished in the company of others and in our own mental world, by engaging in behaviors such as silence, fasting, vows, and more, that Gandhi demonstrated so uniquely, and presented so succinctly by positing that, "my life is my message." We hope that for modern psychology, the variety of nuances of Gandhi's nonviolent behaviors will be an invitation to further explore the range and depth of wisdom, without categorizing such behaviors as being exotic or positioned beyond the scope of what we know as the science of psychology.

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