

Middle East
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Science and the Iranian Middle Class

Roughly a decade after the Constitutional Revolution of 1905/06, many Iranians were of the opinion that constitutionalism had failed to build a sound social and political order in their country, although they understood this situation in different ways in that period of accelerating processes of social diversification. One of several social groups was the nascent modern middle class, emerging since the late 1910s,¹ which reacted to Iran's post-constitutional troubles with a turn of attention away from political revolution to sociocultural reform as the panacea for the creation of a modern individual, society, and state.

The turn of middle-class attention was relative because questions of political organization, while placed on the back-burner, did not quite disappear; and because concern for sociocultural reforms became more urgent than hitherto, but definitely had strong historical roots reaching back into the later 19th century. It was nevertheless a substantial turn as the period from the late 1910s was distinct from the prior period on the grounds of changed contexts – the experiences of the constitutional period, World War I, growing urbanization – as well as of the sheer dimension of proposed sociocultural reforms.

'Insightful and knowledgeable individuals from our midst have repeatedly written books [...] with the intention to find a treatment for the ailments of their country. When we sum up these opinions [...], we see that in general, there are no more than two methods, one being science [*ilm*], the other morality [*akhlaq*].² With these words, the famous Iranian modernist author, M. A. Jamalzadeh, pointed out the core of modernist³ reformism. For the modern middle class, *ilm* meant universal modern science. It was opposed to the pre-modern modes of knowledge of those social groups held responsible for Iran's retardation, and was seen as the fundament of Iran's sociocultural modernization. Judging from modern sciences' overall importance, it is hardly surprising that their formal acquisition (through higher education and work in modern professions) and application (in everyday life and discursive self-understanding) came to constitute the two pillars on which the Iranian modern middle class was founded. The former element became the base for the modern middle-class men's superior social status, while the latter informed a system of ideal cultural behaviour and self-definition by which men as well as women of this class sought to differentiate themselves from the others. *Akhlaq* retained some of its pre-modern connotations, but also assumed a new function. Building upon debates current since the later 19th century, the modern middle class encoded *akhlaq* as a token of Iranian cultural authenticity, most of the principles and objectives of which ultimately obeyed the principles of modern science and were geared to fulfil the rational requirements of modern society. In this modern usage, it served the dual purpose of demarcating the modernists from the colonial West, and providing them with a cultural system that challenged the Shiite *ulama*.

Modern science in class formation

The principal pre-modern modes of knowledge, in explicit opposition to which the modern middle class introduced modern science into Iran, ranged from the so-called 'external' knowledge of nature provided by classical literature, to (Aristotelian) non-experimental sciences, to religious metaphysics and superstition. The social agents of these outdated modes of knowledge, who constituted the main targets of the modernists' critique,

encompassed those persons and groups most closely associated with central political power, 'the masses', and the Shiite *ulama*. For example, the latter were often accused of over-emphasizing metaphysical disciplines and thereby encouraging an otherworldliness, which had 'hampered national progress [...] for centuries'.⁴ Such critiques, treating traditional religious knowledge as superfluous, vain, or useless, were paralleled by attempts launched in the later 19th century to limit the clergy's fields of action in public life and to 'laicize the concept of knowledge'.⁵ A second line of attack against the clergy, commencing in the late 19th century, accused them of advocating – often for personal interest – superstitions and pure ignorance which incapacitated 'the masses' to think and act rationally. With regard to modern science itself, central elements distinguishing it from pre-modern modes of knowledge were a correct experimental methodology, logical thinking, and exactitude. For instance, the German-educated chemist Taqi Arani, killed in 1940 in Reza Shah's prison after being condemned in the famous 1938 process against the communist 'Fifty-three', stated that '[w]ithout logical and mathematical thinking, man cannot undertake investigations in any science, not even regarding the most simple problems. [...] In Iran, there is a group of people who are staunchly opposed to mathematics, i.e. who do not think logically. These anti-mathematicians of the 20th century are really a strange curiosity'.⁶ Modern science's most distinctive trait, however, resided in its great usefulness, its beneficial reformist impact on social and individual life.

This point was mentioned time and again, in a view which directly linked science with its (technological) applications. 'It is with regard to science, and especially to hard sciences which are of utmost importance in today's life and civilization, that we Iranians are lagging three to four hundred years, if not even more, behind the Europeans.'⁷

Besides the latter factors, it was the insistence on the incorrectness of pre-modern types of knowledge and their association with deficient sociomoral character (corruption of morality, uselessness, self-interest, ignorance) that formed the central condition for the construction of modern science and its attributes (usefulness, rationality, altruism, correct logic) as their absolute and fixed opposite. This ideal juxtaposition became relevant through its insertion into the modern middle class's reading of Iran's social forces. The ignorant masses, a selfish clergy, and a *classe politique* as avaricious as out of touch with a rapidly changing modern world: all main social groups held responsible for Iran's chaotic 'real-constitutionalism' and its stalled sociocultural reforms were criticized for their faulty modes of knowledge and immorality. In other words, modern science was embraced as superior to pre-modern knowledge not simply because it was seen as detached objective truth, but also because it helped the modern middle class to secure concrete social advantages. The belief in modern science's absolute distinction and superiority was vital, first of all because it buttressed the

modernists' challenge of the social status and the cultural power of dominant social formations like the *ulama*. However, it had other social and material-financial consequences. For instance, it helped to justify the entrance of modern middle-class men into professional areas such as medicine, law, and education, which were already occupied by strong contenders. Within that class itself, it gave men grounds for their superior position vis-à-vis women, and their interest in gendered contests over intellectual and material resources and social positions could be covered in the neutral terms of modern vs. traditional or advanced modern knowledge vs. limited modern knowledge. All in all, modern science and access to it constituted the cultural and social fundament of modern middle class formation because the discourse of science's neutral objectivity was underpinned by that class's sociocultural and financial-material interests.

If the relational nature of the modern middle class's genesis is mirrored by its deployment of modern science in interaction with other social groups, the historical contingency of its formation is illustrated by the way in which it used modern science – and in this instance also *akhlaq* – in view of and in reaction to Iran's complex cultural, economic, social, and political contexts. The lines above have already alluded to the modern middle class's use of *akhlaq* as a marker of cultural authenticity. Iran's entrance into the modern period of mass politics constituted another context: the Constitutional Revolution had, on a formal-legal level, resulted in the enfranchisement of growing segments of men, and on a practical-political level triggered modes and dimensions of political participation hitherto quite unknown. Although the nascent modern middle class was theoretically in favour of male enfranchisement, it was worried that under these new circumstances, 'the masses' ignorance' would help to throw Iran into yet greater havoc, especially as it was being exploited by 'selfish' traditional middle and upper classes, such as the Shiite clergy. The modern age's pressure on nations to boost their economy by developing a large work force was also a challenge since it was linked to the downsides of a principal social problem of the period: the growth of urban centres, such as Tehran, which was seen not only as an opportunity, but also as a potentially degenerative force menacing all urban groups. It was precisely modern sciences' practical applicability to such complex and yet concrete problems of contemporary Iran which caused the modern middle class to embrace them as the key to the country's modernization and to place them at the core of its own social and cultural formation.

Modernity: local and global dimensions

If the formation of the Iranian modern middle class and its deployment of modern sciences occurred in clearly contingent ways betraying its (semi-)colonial position, it also became part of an increasingly homoge-

nized global modernity. While the modernists maintained their capacity to adopt Western models to Iranian contexts and social relations, the country's ultimately inferior position vis-à-vis 'the West' meant that that main elements and underlying goals of modernist reformism structurally resembled originally Western models. For example, Iranian modernists deployed modern sciences not only to engineer macro-social changes, but also to shape informed, self-disciplined individuals through science-based 'technologies of the Self'. Physiological-medical knowledge of oneself was considered vital for individual health; teachers and parents were called to follow certain fundamental psychological laws in the education of their pupils or children; and numerous books and articles sought to teach self-control. Although early 20th-century modernist Iranians did not simply copy the ways in which modern Europeans wanted to shape themselves, certain basic traits of these (bourgeois) 'technologies of the Self' were necessarily reflected in Iranian modernist visions – and this was the case because Iran had become part of a global modern world in which the basic models for, indeed the idea of, 'society' and 'individual' were introduced by Western countries.

Notes

1. Its formation drew on growing state-run higher modern education and on the needs of an expanding state bureaucracy. See E. Abrahamian, *Iran Between Two Revolutions* (Princeton: Princeton University Press, 1982), 145.
2. Editorial staff of *Farangestan*, 'Pas az yek sal' (After one year), *Farangestan* 1, no. 11–12 (1925): 507f.
3. In this text, I use the often less awkward term 'modernists' synonymously with 'modern middle class'.
4. M. Nakhosteen, 'The Development of Persian Education and Learning' (Ph.D. diss., Cornell University, 1933), 400.
5. See M. Bayat, *Iran's First Revolution. Shi'ism and the Constitutional Revolution of 1905-1909* (New York & Oxford: Oxford University Press, 1991), 35.
6. T. Arani, 'Taraqiy-e sari'-e *ilm* va honar az qarn-e nuzdahom be-ba'd' (The rapid progress of sciences and crafts since the 19th century), *Ilm va honar* 1:1 (1927/28): 16.
7. Mohammad 'Ali Jamalzadeh, 'Thervat-e melli' (The national wealth), *Ilm va honar* 1, no. 2 (1927/28): 1.

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